

Dated

4th October 2023

BUILDING CONTRACT SCHEDULE OF AMENDMENTS

JCT Design and Build Contract

ARINIUM LIMITED

and

FLEETWOOD ARCHITECTURAL ALUMINIUM LIMITED

Replacement of existing cladding

Spectrum Building, 22 Freshwater Road , Dagenham RM8 2EH

THIS DEED is made on **4th October 2023**

BETWEEN:

- (1) **ARINIUM LIMITED** incorporated and registered in England and Wales with company number 11784090 whose registered office is at 310 Harrow Road, Wembley HA9 6LL (**Employer**)
- (2) **FLEETWOOD ARCHITECTURAL ALUMINIUM LIMITED** incorporated and registered in England and Wales with company number 03321897 whose registered office is at Fleetwood House, 480 Bath Road, Slough, Berkshire SL1 6BB (**Contractor**)

BACKGROUND:

- (A) The Employer wishes to procure the design and construction of certain works.
- (B) The Contractor has agreed to carry out the design and construction of those works, as required by this agreement.
- (C) The Employer and Contractor have agreed to incorporate and amend the JCT Design and Build Contract as set out in this agreement.

Agreed terms

1. INTERPRETATION

- 1.1 The following definitions and rules of interpretation apply in this agreement.

Term	Meaning
“JCT Articles”	the section of the JCT Design and Build Contract titled "Articles".
“JCT Attestation”	the section of the JCT Design and Build Contract titled "Attestation".
“JCT Contract Particulars”	the Contract Particulars appended at Appendix A.
“JCT Conditions”	the section of the JCT Design and Build Contract titled "Conditions".
“JCT Design and Build Contract”	the JCT Design and Build Contract (2016 Edition) including any amendments to that contract published before the date of this Contract.

"JCT Recitals"	the section of the JCT Design and Build Contract titled "Recitals".
"Schedule of Amendments"	the Schedule of Amendments set out in Schedule 1.

- 1.2 The definitions in the JCT Design and Build Contract have the same meaning in this agreement as in the JCT Design and Build Contract unless the meaning given in the JCT Design and Build Contract is different from, or conflicts with, the meaning given in the Schedule of Amendments, in which case the Schedule of Amendments prevails.
- 1.3 The schedules form part of this agreement and shall have effect as if set out in full in the body of this agreement. Any reference to this agreement includes the schedules.
- 1.4 A reference to a **company** shall include any company, corporation or other body corporate, wherever and however incorporated or established.
- 1.5 Any obligation on a Party not to do something includes an obligation not to allow that thing to be done.
- 1.6 A reference to this agreement or to any other agreement or document referred to in this agreement is a reference to this agreement or such other agreement or document as varied or novated (in each case, other than in breach of the provisions of this agreement) from time to time.
- 1.7 References to clauses, schedules and annexes are to the clauses, schedules and annexes of this agreement and references to paragraphs are to paragraphs of the relevant schedule.
- 1.8 Any words following the terms **including, include, in particular, for example** or any similar expression shall be construed as illustrative and shall not limit the sense of the words, description, definition, phrase or term preceding those terms.
- 1.9 Without prejudice to clause 1.2, in case of any difference, discrepancy or conflict between the Schedule of Amendments and the JCT Design and Build Contract, the Schedule of Amendments shall prevail.

2. **INCORPORATING AND AMENDING THE JCT DESIGN AND BUILD CONTRACT**

- 2.1 This agreement incorporates and amends the JCT Design and Build Contract as follows:
- (a) it incorporates the JCT Recitals, as amended by Part 1 of ~~Error! Reference source not found;~~ **Schedule 1**
 - (b) it incorporates the JCT Articles, as amended by Part 2 of ~~Error! Reference source not found;~~ **Schedule 1**

- (c) it incorporates the JCT Contract Particulars, as ~~amended by~~ ^{referred to in} Part 3 of ~~Error!~~
~~Reference source not found~~; and
Schedule 1
- (d) it incorporates the JCT Conditions, as amended by Part 4 of ~~Error! Reference~~
~~source not found~~. Schedule 1

2.2 This agreement does not incorporate the JCT Attestation.

3. GOVERNING LAW

3.1 This agreement and any dispute or claim (including non-contractual disputes or claims) arising out of or in connection with it or its subject matter or formation shall be governed by and construed in accordance with the law of England and Wales.

This document has been executed as a deed and is delivered and takes effect on the date stated at the beginning of it.

Signed as a deed by **ARINIUM LIMITED** acting by a
director

Director's signature

in the presence of:

Witness signature

Name (in block capitals).....

Address.....

Occupation

I confirm that I was physically present when Brijesh Patel signed this document.

Signed as a deed by **FLEETWOOD ARCHITECTURAL
ALUMINIUM LIMITED** acting by a director

[Redacted Signature]

... 6BBFA4336E40415...

Director's signature

[Redacted Signature]

in the presence of:

Witness signature

[Redacted Signature]

Name (in block capitals).....

[Redacted Name]

Address.....

.....

Occupation

[Redacted Occupation]

.....
I confirm that I was physically present when Jasdeep Rup Singh Randhawa signed this document.

SCHEDULE 1

Schedule of Amendments

Part 1 Recitals

1. FIRST RECITAL

1.1 Complete the First Recital with this description of the Works:

Replacement of the existing cladding to the building and associated works as required to enable an EWS 1 report with minimum rating of B1 to be issued for the building (all in accordance with DLUHC and Building Safety Fund guidance and requirements) at Spectrum Building, 22 Freshwater Road, Dagenham RM8 1EH.

2. THIRD RECITAL

2.1 Delete the existing Third Recital and replace with:

"the Contractor has examined the Employer's Requirements and has agreed to accept full responsibility for any design contained in them and confirms that the Employer's Requirements are and shall be satisfied by the Contractor's Proposals and Contract Sum Analysis."

Part 2 Articles

1. ARTICLE 2: CONTRACT SUM

1.1 Complete Article 2 with this Contract Sum:

FOUR MILLION EIGHT HUNDRED AND EIGHTY-EIGHT THOUSAND SEVEN HUNDRED AND FIFTY FIVE POUNDS AND EIGHTY SIX PENCE (£4,888,755.86)

2. ARTICLE 3: EMPLOYER'S AGENT

2.1 Complete Article 3 with this Employer's Agent:

Hart Dixon LLP of 14 Devonshire Square London EC2M 4YP.

AND insert the following at the end of the Article :

"The Contractor shall fully cooperate and liaise with the Employer's Agent at all times. The Employer's Agent is responsible for administering the Contract for the duration of the Works, including all quantity surveying duties (contract variations and cost monitoring) which shall be performed by Barry Shambrook of the Employer's Agent or such replacement as the Employer's Agent appoints from time time to fulfil such duties."

3. **ARTICLE 5: PRINCIPAL DESIGNER**

3.1 Complete Article 5 with this Principal Designer:

Hart Dixon LLP of 14 Devonshire Square London EC2M 4YP

4. **ARTICLE 6: PRINCIPAL CONTRACTOR**

4.1 Complete Article 6 with this Principal Contractor:

The Contractor

5. **ADD NEW ARTICLE 10 AS FOLLOWS**

The Recitals, Articles, Conditions of Contract and Schedules set out in the JCT Design and Build Contract shall have effect as amended by the amendments (“the JCT DB Amendments”) set out in this Schedule of Amendments. If there is any conflict or discrepancy between the Recitals, Articles, Conditions of Contract or Schedules and the JCT DB Amendments, the JCT DB Amendments shall prevail.”

6. **ADD NEW ARTICLE 11 AS FOLLOWS:**

Any work (including any design, enabling, temporary or other preliminary or permanent work) carried out by the Contractor prior to the date of this Contract in anticipation of the Employer entering into this Contract with the Contractor (including without limitation pursuant to the Pre-Construction Services Agreement) shall form part of the Works and all amounts in respect of such work shall be deemed to have been paid and be treated as payments on account of the Contract Sum.

Part 3 Contract Particulars

Appendix A

The Contract Particulars are attached at ~~Error! Reference source not found.~~

Part 4 Conditions

1. **CLAUSE 1.1**

1.1 Amend these definitions:

- (a) Agreement: add to the end of the definition, before the full stop:

", each as amended by the **Schedule of Amendments**".

- (b) Article: add to the end of the definition, before the full stop:

", as amended by of the **Schedule of Amendments**".

- (c) Conditions: add to the end of the definition, before the full stop:

", each as amended by Part 4 of the **Schedule of Amendments**".

- (d) Consultant: delete the existing definition text and replace with:

"a professional consultant named or identified in Part 1 of Schedule 5 to the Schedule of Amendments."

- (e) Funder: delete the existing definition text and replace with:

"Grant Funder: The Secretary of State for Levelling Up, Housing and Communities in providing finance in connection with the whole or any part of the Works or the site of the Works, as administered by The Greater London Authority pursuant to the Grant Funding Agreement."

- (f) Purchaser: delete these words from the definition: "named or otherwise sufficiently..." to "...Rights Particulars" (inclusive).

- (g) Tenant: delete these words from the definition: "named or otherwise sufficiently..." to "...Rights Particulars" (inclusive).

1.2 Add these definitions:

Beneficiary: the Grant Funder, Management Company, Related Entity, and/or Purchaser;

BSF Guidance: all relevant guidance or requirements relating to the Works issued by Government or any other authority, including without limitation the guidance note issued by DLUHC in February 2021 entitled Guidance on the Remediation of non-ACM Buildings which was last updated on 20 July 2023 (and which may be further updated from time to time) full details of which are available here:

<https://www.gov.uk/guidance/remediation-of-non-acm-buildings>

"Construction Products Regulations: Regulation (EU) No 305/2011 and the Construction Products Regulations 2013 (SI 2013/1387)."

"Deleterious: materials, equipment, products or kits that are generally accepted, or generally suspected, in the construction industry at the relevant time as posing a threat to the health and safety of any person; or posing a threat to the structural stability, performance or physical integrity of the Works or any part or component of the Works; or reducing the normal life expectancy of the Works or any part or component of the Works; or not being in accordance with any relevant British Standard, relevant code of practice, good building practice or any applicable agrément certificate issued by the British Board of Agrément; or having been supplied or placed on the market in breach of the Construction Products Regulations."

DLUHC: Department for Levelling Up, Housing and Communities (or such other name as it may be known from by time to time).

Good Industry Practice: that degree of skill, care, prudence and foresight and operating practice which would reasonably and ordinarily be expected from time to time of a skilled and experienced person engaged in the same type of undertaking as that of the Contractor under the same or similar circumstances.

Good Procurement Practice: the procurement of all goods, works and services required for the delivery of the Works in accordance with the principles of best consideration, appropriate skill and experience, value for money, transparency and otherwise in accordance with best procurement practice.

Grant Funding Agreement: the agreement which has been executed by the Employer and has been entered into or is to be entered into between The Secretary of State for Levelling Up, Housing and Communities, The Greater London Authority and the Employer relating to the funding of the Works.

Management Company: any person responsible for operation and/or maintenance or repair in relation to the Works, the Property (or any part thereof) and relevant associated areas.

Material: all designs, drawings, models, plans, specifications, design details, photographs, brochures, reports, notes of meetings, CAD materials, calculations, data, databases, schedules, programmes, bills of quantities, budgets and any other materials provided in connection with the Works (and completed Works) and all updates, amendments, additions and revisions to them and any works, designs, or inventions incorporated or referred to in them for any purpose relating to the Works (and completed Works).

Permitted Uses: the design, construction, completion, reconstruction, modification, refurbishment, development, maintenance, facilities management, funding, disposal, letting, fitting-out, advertisement, decommissioning, demolition, reinstatement building information modelling and repair of the Works (and the completed Works).

Pre-Construction Services Agreement means the agreement for the carrying out of pre-construction services relating to the Works entered into by the Parties on 3 February 2023.

Related Entity: any company or partnership which is in the same group as the Employer within the meaning of section 1161 Companies Act 2006; or any parent or subsidiary undertaking (as defined in section 1162 Companies Act 2006) of the Employer; or any joint venture entity, limited partnership or limited liability partnership of which the Employer, a group company or a subsidiary as defined above is a part from time to time.

Standard of Care: all the reasonable skill, care and diligence to be expected of a qualified and experienced architect (or other appropriate professional designer) undertaking the design of works similar in scope and character to the Works.

Third Party Agreements: the agreements between the Employer and third parties insofar as they relate to the Works, as listed in Schedule 66 to the Schedule of Amendments, and as may be supplemented by any instruction from the Employer referred to in clause 5.1.

2. **CLAUSE 1.3**

2.1 In clause 1.3:

After "other Contract Document" delete: "or any Framework Agreement," and after "irrespective of" delete "their" and replace with:

"its"; and

After "override or modify" add:

"the Schedule of Amendments, " and

at the end of the clause, after the full stop, add:

"Following execution and completion of this agreement (incorporating the Schedule of Amendments) by the Parties, nothing contained in the Pre-Construction Services Agreement shall override or modify the Schedule of Amendments, the Agreement or these Conditions."

3. **CLAUSE 1.4**

3.1 Insert a new clause 1.4.6:

"1.4.6 Unless the context otherwise requires, any reference to European Union law that was directly applicable or directly effective in the UK at any time is a reference to it as it applies in England and Wales from time to time including as retained, amended, extended, re-enacted, consolidated, with or without modification, or otherwise given effect on or after 11pm on 31 December 2020."

4. **CLAUSE 1.6**

- 4.1 Delete clause 1.6, but not its heading, and replace with:

"Other than any rights as take effect pursuant to section 7 of these Conditions, nothing in this Contract confers or is intended to confer any right to enforce any of its terms on any person who is not a party to it."

5. **CLAUSE 1.8**

- 5.1 Delete clause 1.8.1 and insert "Number not used."

6. **CLAUSE 1.9**

- 6.1 Delete "Save as stated in clause 1.8, no" and insert "No".

7. **CLAUSE 1.10**

- 7.1 Delete from the end of the clause:

"except in the case of either Party's" to "whom it is sought" (inclusive).

Add to the end of the clause:

"Notwithstanding any other provision of this Contract, the term **approval**, when used in the context of any approval to be given by the Employer or the Employer's Agent, shall have the meaning 'acceptance of general principles only', and no such approval or any consent given by the Employer or the Employer's Agent nor any inspection of, or failure to inspect, the Works shall diminish or relieve the Contractor from any of his obligations or liabilities under this Contract."

8. **CLAUSE 2.1**

- 8.1 In clause 2.1, insert "in accordance with good building practice and all applicable British standards and codes of practice, industry guidance, Good Industry Practice, Good Procurement Practice, BSF Guidance and in compliance with the Contract Documents, Third Party Agreements" after "proper and workmanlike manner"

- 8.2 Delete sub-clause 2.1.2 and replace with:

"Number not used."

9. **CLAUSE 2.2**

- 9.1 In sub-clause 2.2.1, after "so far as procurable, be" add:

"of satisfactory quality and"

- 9.2 Add a new sub-clause 2.2.6:

"The Contractor shall use the Standard of Care to not specify or use anything in the Works, which, at the time of specification is Deleterious."

9.3 Add a new sub-clause 2.2.7:

"Without prejudice to clause 2.2.6, the Contractor shall not knowingly suffer or permit the use in the Works of anything, which, at the time of use, is Deleterious. The Contractor shall immediately notify the Employer if he becomes aware of any such use."

10. **CLAUSE 2.2A**

Add a new clause 2.2A as follows:

“1. Notwithstanding any other provision of this Contract to the contrary, the Contractor acknowledges that in undertaking its services under the Pre-Construction Services Agreement it carried out intrusive surveys of the cladding and underlying structures of the Existing Structures prior to the date of this Contract, and shall be deemed to have obtained information as to risks, contingencies and all other circumstances which may influence or affect the execution of the Works, insofar as they would have been apparent to an experienced and competent contractor carrying out such surveys and experienced in carrying out works of a similar scope, nature and value of the Works at the date of the Contract (“Foreseeable Conditions”). The Contractor shall be deemed to allow for the Foreseeable Conditions in the Contract Sum and its programme, and accordingly the discovery of a Foreseeable Condition shall not entitle the Contractor to an addition to the Contract Sum, reimbursement of loss and/or expense or an extension of time and no Change in relation to or in consequence thereof shall arise.

11. **CLAUSE 2.7**

11.1 At the start of sub-clause 2.7.1, delete "The" and replace with:

"Unless the Employer has supplied the Contractor with one original executed and completed part of this Contract (incorporating the Schedule of Amendments and the Contract Documents), the"

11.2 In sub-clause 2.7.2, after "provide him with" add:

"one original executed and completed part of this Contract (incorporating the Schedule of Amendments and the Contract Documents) or"

11.3 In sub-clause 2.7.4, after sub-clause 2.7.4.2, after "save that the Employer may" add:

"use any documents supplied by the Contractor in accordance with clause 2.38 and".

12. **CLAUSE 2.8**

12.1 Delete from the start of clause 2.8: "Save for any" to "Contractor's Proposals, the" (inclusive) and replace with:

"The"

13. **CLAUSE 2.11**

13.1 Delete clause 2.11 and its heading and replace with:

"Number not used."

14. **CLAUSE 2.12**

14.1 Delete clause 2.12 and its heading and replace with:

"Number not used."

15. **CLAUSE 2.13**

15.1 Delete the opening paragraph of the clause (before sub-clause 2.13.1) and replace with:

"If the Contractor becomes aware of any inadequacy, discrepancy or divergence in or between the following, namely:"

16. **CLAUSE 2.14**

16.1 Delete clause 2.14 and replace with:

"Where there is a discrepancy within the Employer's Requirements or the Contractor's Proposal's and/or other Contractor's Design Documents (including any non-compliance with the Statutory Requirements and including a discrepancy that results from a Change), or a divergence between the Employer's Requirements and the Contractor's Proposals and/or other Contractor's Design Documents (including a divergence that results from a Change), the Contractor shall notify the Employer of the discrepancy or divergence and of its proposed amendments to correct or remove it (as the case may be). Subject always to compliance with the Statutory Requirements, the Employer shall decide between the discrepant or divergent items (as the case may be) or otherwise may accept the Contractor's proposed amendments or decide how the discrepancy or divergence shall be dealt with. The Contractor shall be obliged to comply with the decision or acceptance by the Employer without any adjustment of the Contract Sum or extension of time for completion and without affecting in any way or to any degree the responsibility of the Contractor under this Contract."

17. **CLAUSE 2.15**

17.1 In sub-clause 2.15.2.1, after "change in Statutory Requirements" add:

"that was not foreseen by the Contractor at the Base Date and could not reasonably have been foreseen by a competent contractor at the Base Date".

17.2 Delete sub-clause 2.15.2.3.

18. **CLAUSE 2.25**

18.1 Delete "and" from the end of sub-clause 2.25.6.3.

18.2 Delete the full stop at the end of sub-clause 2.25.6.4 and replace with:

" ; and "

18.3 Add a new sub-clause 2.25.6.5:

"(save where the Relevant Event is as defined in clause 2.26.9 and provided, in that case, that the Contractor has complied fully with any obligation upon the Contractor to maintain insurance against Specified Perils under this Contract) the Contractor shall not be entitled to any extension of time on account of any circumstance arising by reason of any error, omission, negligence or default of the Contractor or the Contractor's Persons."

19. **CLAUSE 2.26**

19.1 Delete clause 2.26.2.1 and insert "Number not used".

19.2 In sub-clause 2.26.7 add at the end of the sub-clause and before the semicolon:

"provided that the Contractor has given reasonable notice to the Statutory Undertaker of the dates on which the work the Statutory Undertaker is to undertake is required to commence and be completed and has used all reasonable endeavours to secure the agreement of the Statutory Undertaker to such dates".

19.3 In sub-clause 2.26.11 add at the end of the sub-clause and before the semicolon:

"provided that such strike, lockout or local combination of workmen is of a national or regional nature, does not affect the site of the Works alone and is not restricted to the employees of the Contractor or any sub-contractor".

20. **CLAUSE 2.32**

20.1 Add to the end of clause 2.32, before the full stop:

", provided that the Employer shall not be required to issue that notice earlier than the expiry of the Rectification Period for the Relevant Part"

21. **CLAUSE 2.35**

21.1 Delete from the start of clause 2.35.2:

"prior to the issue of that schedule, "

22. **CLAUSE 2.36**

22.1 Add to the end of the first sentence in clause 2.36, before the full stop:

", provided that the Employer shall not be required to issue any Notice of Completion of Making Good earlier than the expiry of the Rectification Period"

23. NEW CLAUSE 2.36A

23.1 Add a new clause 2.36A after clause 2.36:

"Snagging list and defects, shrinkages or other faults remaining at practical completion
Clauses 2.35 and 2.36 shall apply, mutatis mutandis to:

.1 any items identified on any snagging list issued by or on behalf of the Employer at or around practical completion or attached to a Practical Completion Statement or Section Completion Statement;

.2 any defects, shrinkages or other faults in the Works at practical completion; and

.3 any incomplete work, forming part of the Works, remaining at practical completion."

24. CLAUSE 2.38

24.1 Delete sub-clause 2.38.2 and replace with sub-clauses 2.38.2.1 to 2.38.2.2:

".1 The Contractor grants to the Employer, with immediate effect, an irrevocable, non-exclusive, non-terminable, royalty-free licence to copy and make full use of any Material prepared by or on behalf of Contractor for any purpose relating to the Works (and the completed Works) including any of the Permitted Uses.

.2 This licence allows the Employer to use the Material in connection with any extension of the Project, but not to reproduce the designs contained in the Material in any such extension.

24.2 Delete sub-clause 2.38.3 and replace with:

"This licence carries the right to grant sub-licences and is transferable to the Grant Funder and or owner of part or all of the Works from time-to-time and to other third parties without the Contractor's consent."

24.3 Delete sub-clause 2.38.4 and replace with:

"The Contractor shall have no liability for use of the Material for any purpose other than that for which it was prepared and/or provided."

25. NEW CLAUSE 2.39

25.1 Add a new clause 2.39:

"Third Party Agreements

.1 The Contractor shall be deemed to have read the Third Party Agreements and to be fully aware of the obligations, risks and liabilities assumed by the Employer under them.

.2 The Contractor shall perform and assume, as part of its obligations under this Contract, the Employer's obligations, liabilities and risks contained within the Third Party Agreements that relate to the carrying out of the Works as if they were expressly referred to in this Contract as obligations, liabilities and risks of the Contractor.

.3 The Contractor shall ensure that no act or default or omission on its part or on the part of any of the Contractor's Persons in relation to the performance by the Contractor of its obligations under this Contract shall cause, contribute or otherwise give rise to any breach by the Employer of any of its obligations under the Third Party Agreements."

26. **CLAUSE 3.4**

26.1 In sub-clause 3.4.2.5 delete "the Rights Particulars provide" and replace with:

"this Contract provides"

26.2 In sub-clause 3.4.2.5.2 delete "14 days" and replace with:

"10 Business Days"

27. **CLAUSE 3.16**

27.1 Delete sub-clause 3.16.1 and replace with:

"Number not used."

27.2 Replace the full stop at the end of sub-clause 3.16.5 with a semi-colon and add new sub-clause 3.16.6:

"where the Contractor is not the Principal Designer but is the Principal Contractor and the Principal Designer's appointment concludes before practical completion of the Works, the Contractor shall review, update and revise the health and safety file in accordance with regulations 12(8) to (10) of the CDM Regulations at no cost to the Employer and which shall not entitle the Contractor to an extension of time OR and the Contractor's work in that regard shall be treated as a Change under clause 5.1."

28. **CLAUSE 4.2**

28.1 Delete clause 4.2.3 and replace with:

"Number not used."

29. **CLAUSE 4.4**

29.1 Delete clause 4.4.1 and replace with:

"The Contract Sum is exclusive of VAT and, in relation to each payment to the Contractor for any supply made under this Contract:

.1 the Contractor shall within two Business Days following the issue by the Employer of a Payment Notice issue to the Employer an appropriate VAT invoice in respect of such supply, indicating whether or not the reverse charge applies to the supply; and

.2 subject to the Contractor complying with clause 4.4.1.1 and unless the reverse charge applies, the Employer shall in addition pay to the Contractor the amount of any VAT properly chargeable in respect of such supply."

29.2 Insert new clause 4.4.3:

"4.4.3 The Contractor shall include within its first Interim Payment Application a request for the Employer to confirm in writing whether the reverse charge applies to the payments to be made by the Employer under the Contract. The Employer shall provide such confirmation with, or not later than the issue of, the Payment Notice relating to the first Interim Payment Application."

30. **CLAUSE 4.9**

31.1 In clause 4.9.1, delete "14 days" and insert "21 days"

31.2 In the fourth line from the end of clause 4.9.5, delete "5 days" and insert "one day".

31. **CLAUSE 4.10**

31.1 Delete from the start of sub-clause 4.10.4 "The Employer's fiduciary" to "prevent him exercising" (inclusive) and replace with:

"The Employer may exercise".

32. **CLAUSE 4.11**

32.1 In sub-clause 4.11.1, after "7 days after the Contractor has given notice to the Employer of his intention to suspend the performance of" add:

"any or all of".

32.2 In sub-clause 4.11.3, delete:

"or on request"

and, at the end of the sub-clause, add a new sentence:

"The Contractor shall, on request, submit such further details as are reasonably requested by or on behalf of the Employer."

33. **CLAUSE 4.12**

33.1 Delete sub-clause 4.12.1.4 and replace with:

"Number not used."

and, in the sentence that follows deleted sub-clause 4.12.1.4, delete "any applicable Fluctuations Provision or"

33.2 Delete sub-clause 4.12.2.5 and replace with:

"Number not used."

33.3 In sub-clause 4.12.3.2 delete:

"or under any applicable Fluctuations Provision,".

34. **CLAUSE 4.13**

34.1 In clause 4.13.1, in the sentence that follows sub-clause 4.13.1.3, delete "any applicable Fluctuations Provision or".

34.2 Delete sub-clause 4.13.2.5 and replace with:

"Number not used."

34.3 In clause 4.13.3.2 delete:

"or under any applicable Fluctuations Provision,".

35. **CLAUSE 4.16**

35.1 Delete clause 4.16 and replace with:

"With regard to the Retention, which the Employer may deduct and retain as referred to in clause 4.14, the Employer shall be:

.1 under no fiduciary obligation to the Contractor or any third party;

.2 under no obligation to set aside in a separate bank account any amount representing the Retention; and

.3 entitled to the full beneficial interest in any interest accruing on the Retention and shall be under no obligation to account to the Contractor for any such interest."

36. **CLAUSE 4.17**

36.1 In sub-clause 4.17.5, delete "7.3.1" and replace with:

"7.3"

37. **CLAUSE 4.19**

37.1 In clause 4.19.1 after "subject to clause 4.19.2" add:

", 4.19.3"

and add a new sub-clause 4.19.3:

"Without affecting clause 4.19.2, no such entitlement arises and the Contractor shall not claim that such an entitlement arises where any such loss and/or expense arises by reason of any error, omission, negligence or default of the Contractor or the Contractor's Persons (other than any amount that is recoverable by the Employer under a policy of insurance maintained in accordance with Insurance Option B or Insurance Option C, if applicable)."

38. CLAUSE 5.1

38.1 Change the full stop at the end of sub-clause 5.1.2.4 to a semicolon and add a new sub-clause 5.1.3:

".3 without prejudice to the rest of this clause 5.1, an instruction from the Employer supplementing or amending the Third Party Agreements."

39. CLAUSE 5.6

39.1 At the end of clause 5.6 before the full stop, add:

", provided always that the substantial change in the conditions does not arise by reason of any error, omission, negligence or default of the Contractor or the Contractor's Persons"

40. CLAUSE 6.1

40.1 In clause 6.1, after "caused by the carrying out of the Works" add:

"or of any other obligation pursuant to Section 2 or Section 3 of the Conditions".

41. CLAUSE 6.2

41.1 In clause 6.2, after "by reason of the carrying out of the Works" add:

"or of any other obligation pursuant to Section 2 or Section 3 of the Conditions".

42. NEW CLAUSE 6.3A

42.1 Add new clause 6.3A after clause 6.3:

"Contractor to prevent nuisance and indemnify Employer

The Contractor shall comply with the Considerate Constructors Scheme and any applicable Local Authority Code of Construction Practice and prevent any nuisance (including any unlawful noisy working operations) or other unlawful interference with the rights of any nearby owner, tenant or occupier or any Statutory Undertaker, of which the Contractor is or ought reasonably to have been aware, arising out of the carrying out of the Works or out of any other obligation pursuant to Section 2 or Section 3 of the Conditions. The Contractor shall assist the Employer in defending any action or

proceedings in relation to any such nuisance or interference. The Contractor shall be responsible for and shall indemnify the Employer from and against any and all expenses, liabilities, losses, claims and proceedings resulting from any failure or default by the Contractor in performing its obligations under this clause 6.3A."

43. **NEW CLAUSE 6.3B**

43.1 Add new clause 6.3B after new clause 6.3A:

"Contractor to prevent trespass to neighbours

Without prejudice to clauses 6.1, 6.2 and 6.3A, the Contractor shall ensure that there is no trespass by the Contractor or the Contractor's Persons (including the oversailing of a tower crane jib or the erection of a scaffold or hoarding) on or over any nearby property arising out of the Works or out of any other obligation pursuant to Section 2 or Section 3 of the Conditions and shall take all reasonable safety and other measures to prevent damage or injury to any persons including the occupiers of nearby property and members of the public. If carrying out the Works or any other obligation pursuant to Section 2 or Section 3 of the Conditions would otherwise be an act of trespass, the Contractor shall, at no cost to the Employer, obtain the prior written agreement of the owners or occupiers of any nearby property to that act. That agreement shall be subject to the Employer's approval before its completion. The Contractor shall comply with any condition or obligation contained in that agreement, at no cost to the Employer and shall not be entitled to any extension of time as a result of any condition or obligation contained in that agreement."

44. **CLAUSE 6.4**

44.1 In sub-clause 6.4.1, after "effect and maintain insurance", add:

"(with the names of the Employer and the Grant Funder shown as additional insureds)"

44.2 In sub-clause 6.4.1.2, after "Employer" (both times it is used), add:

"and the Grant Funder"

and after "of this Contract" before the bracket add:

"including under any third party rights or collateral warranty between the Contractor and the Grant Funder provided for in this Contract"

45. **CLAUSE 6.8**

45.1 In the definition of "Joint Names Policy" delete "the Employer and the Contractor" and replace with:

"the Employer, any person acquiring the Employer's interest in the whole or part of the Works, the Contractor and the Grant Funder"

46. **CLAUSE 6.15**

46.1 Delete clause 6.15 and replace with:

"Obligation to insure

The Contractor shall maintain professional indemnity insurance for an amount of at least **£5,000,000.00** in the annual aggregate for a period beginning on the date of this Contract and ending 12 years after the date of practical completion of the Works, provided that (subject to clause 6.15A) such insurance is available at commercially reasonable rates and terms. The Contractor shall maintain that professional indemnity insurance:

- .1 with reputable insurers lawfully carrying on insurance business in the UK
- .2 on customary and usual terms and conditions prevailing for the time being in the insurance market; and
- .3 on terms that do not require the Contractor to discharge any liability before being entitled to recover from the insurers and that would not adversely affect the rights of any person to recover from the insurers under the Third Parties (Rights Against Insurers) Act 2010."

47. **NEW CLAUSE 6.15A**

47.1 Add new clause 6.15A, after clause 6.15:

"Commercially reasonable rates

Any increased or additional premium required by insurers for the insurance referred to in clause 6.15 and clause 6.16C because of the Contractor's claims record or other acts, omissions, matters or things particular to the Contractor shall be deemed to be within commercially reasonable rates."New clause 6.15B

47.2 Add new clause 6.15B, after clause 6.15A:

"Evidence of professional indemnity insurance

The Contractor shall at the Employer's request send the Employer evidence that the Contractor's insurance referred to in clause 6.15 is in force, including, if required by the Employer, an original letter from the Contractor's insurers or brokers confirming:

- .1 the Contractor's then current professional indemnity insurance; and
- .2 that the premiums for that insurance have been paid in full or in such instalments as may have been agreed by the insurers at the date of that letter."

48. **CLAUSE 7.1**

48.1 Delete clause 7.1 and replace with:

"General right to assign

.1 The Employer may assign or otherwise transfer the benefit of this Contract to any person taking an interest in the Works or the completed Works. In this Contract the term "Employer" shall be construed accordingly.

.2 Without prejudice to clause 7.1.1, the Employer may charge, or assign by way of security, the benefit of this Contract to the Grant Funder (and the Grant Funder may reassign the benefit of this Contract to the Employer on redemption of that security).

.3 The Employer shall notify the Contractor of any assignment within 10 Business Days. If the Employer fails to do this, the assignment shall still be valid.

.4 The Contractor shall not contend that any person to whom the benefit of this agreement is assigned under this clause 7.1 may not recover any sum under this Contract because that person is an assignee and not a named Party to this Contract.

.5 The Contractor shall not assign or charge the benefit of this Contract or any right arising under it without the Employer's prior consent, which the Employer may withhold at its absolute discretion."

49. CLAUSE 7.2

49.1 Delete the whole of clause 7.2 and its heading and replace with:

"Number not used."

50. CLAUSES 7.4 TO 7E (INCLUSIVE)

50.1 Delete existing clauses 7.4 to 7E (inclusive).

50.2 Replace clause 7.4 with:

"Contractor's collateral warranty

.1 Within 10 Business Days of a request from the Employer, the Contractor shall execute and deliver a deed or deeds of collateral warranty in favour of the Grant Funder in the relevant form of the contractor's deed of collateral warranty contained in 7 to the Schedule of Amendments.

.2 Within 10 Business Days of a request from the Employer, the Contractor shall execute and deliver a deed or deeds of collateral warranty in favour of any Purchaser and any Tenant in the form of the contractor's deed of collateral warranty contained in Part B of Schedule 7 to the Schedule of Amendments.

.2 If the Contractor does not execute and deliver a contractor's deed of collateral warranty in accordance with clause 7.4.1 or 7.4.2, the Employer may execute that deed on the Contractor's behalf, and the Contractor hereby appoints the Employer as the Contractor's attorney for the purpose of executing that deed and the Contractor agrees to ratify and confirm any act done by the Employer pursuant to this power of attorney

and agrees that this power is irrevocable pursuant to section 4, Powers of Attorney Act 1971."

50.3 Add new sub-clauses 7.4.3 and 7.4.4:

".3 Where the Employer has given notice to the Contractor under clause 7.4.1 then, notwithstanding clause 7.4.2, the Employer and the Contractor may not (without the persons referred to in those notices' consent) amend or vary clauses 7.4.1 to 7.4.4 (inclusive) or the relevant part of parts of Schedule 7.

.4 Without prejudice to clause 7.4.3, where the Employer has given notice to the Contractor under clause 7.4.1 that refers to the Grant Funder, neither the Employer nor the Contractor shall agree to rescind this Contract, and the rights of the Contractor to terminate his employment under this Contract or to treat it as repudiated shall be subject to the provisions of Schedule 7 to the Schedule of Amendments but, unless and until the Grant Funder gives notice in accordance with Schedule 7 to the schedule of Amendments, the Employer and the Contractor may (without the consent of the Grant Funder) agree to amend, vary or waive any term of this Contract."

51. **NEW CLAUSE 7.5**

51.1 Add a new clause 7.5:

"Consultants - appointment

Within 10 Business Days of the date of this Contract, the Contractor shall appoint the Consultants. The Contractor shall procure that a Consultant or other competent professional certifies that the Works comply with the Building Safety Fund requirements referred to in Schedule 7 of the Grant Funding Agreement and that a certificate of compliance is issued in the form set out therein (or in such other form as the GLA may prescribe from time to time) as and when required to enable drawdown of funding under the Grant Funding Agreement.

52. **NEW CLAUSE 7.7:**

53.1 Add new clause 7.7:

"Consultants - Contractor's duty not to terminate or vary appointments

The Contractor shall not terminate or vary the appointment of any Consultant without the Employer's prior consent, which shall not be unreasonably withheld or delayed."

53. **SECTION 8 TERMINATION**

54. **CLAUSE 8.1**

54.1 In sub-clause 8.1.4.1 delete "he enters into an arrangement, compromise or composition in satisfaction of its debts" and replace with:

"it commences negotiations with all or any class of its creditors with a view to rescheduling any of its debts, or makes a proposal for or enters into any compromise or arrangement with any of its creditors".

54.2 At the end of sub-clause 8.1.4.2, delete the full stop and replace with ";or".

54.3 Insert a new sub-clause 8.1.4.3:

"it applies to court for, or obtains, a moratorium under Part A1 of the Insolvency Act 1986."

55. **CLAUSE 8.4**

55.1 In sub-clause 8.4.1.3 after "requiring him to remove" add:

"or rectify"

56. **CLAUSE 8.5**

56.1 In sub-clause 8.5.3.3, after "the Employer may", add:

", at the Contractor's expense,"

57. **CLAUSE 8.6**

57.1 In clause 8.6, after "acting or his behalf", add:

"or associated with him",

and at the end of the clause, after the full stop, add:

"For the purpose of this clause 8.6, whether a person is associated with another person shall be determined in accordance with section 8 of the Bribery Act 2010 and a person associated with the Contractor includes, but is not limited to, any of the Contractor's Persons."

58. **CLAUSE 8.7**

58.1 In sub-clause 8.7.2 after "the Contractor shall" and before the colon, add:

", at the Contractor's expense"

67.2 At the end of sub-clause 8.7.4, before the colon, add:

", at the Contractor's expense"

59. **CLAUSE 8.12**

59.1 Delete sub-clause 8.12.3.5.

59.2 Delete sub-clause 8.12.4 and replace with:

"Number not used."

60. **CLAUSE 9.2**

60.1 Add new sub-clauses in clause 9.2:

".3 The Adjudicator shall give reasons for his decision and shall deliver his decision to the Parties as soon as practicable and within 2 Business Days of making his decision.

.4 The Adjudicator shall notify the Contractor and the Employer as soon as practicable, if he becomes aware that he has any interest in the Works, the subject matter of the adjudication, or the Parties."

61. **JCT DESIGN AND BUILD CONTRACT, SCHEDULE 1: DESIGN SUBMISSION PROCEDURE**

61.1 This agreement incorporates Schedule 1 to the JCT Conditions.

62. **JCT DESIGN AND BUILD CONTRACT, SCHEDULE 2: SUPPLEMENTAL PROVISIONS**

62.1 This agreement incorporates Schedule 2 to the JCT Conditions.

63. **JCT DESIGN AND BUILD CONTRACT, SCHEDULE 3: INSURANCE OPTIONS**

63.1 This agreement incorporates Schedule 3 to the JCT Conditions.

64. **JCT DESIGN AND BUILD CONTRACT, SCHEDULE 4: CODE OF PRACTICE**

64.1 This agreement incorporates Schedule 4 to the JCT Conditions.

65. **JCT DESIGN AND BUILD CONTRACT, SCHEDULE 5: THIRD PARTY RIGHTS**

65.1 Delete Schedule 5 to the JCT Conditions and replace with:

"Schedule 5 not used."

66. **JCT DESIGN AND BUILD CONTRACT, SCHEDULE 6: FORMS OF BONDS**

66.1 [This agreement incorporates Schedule 6 to the JCT Conditions.]or [Delete Schedule 6 to the JCT Conditions and replace with: Schedule 6 not used.]

67. **JCT DESIGN AND BUILD CONTRACT, SCHEDULE 7: FLUCTUATIONS OPTION**

67.1 Delete Schedule 7 to the JCT Conditions and replace with:

"Schedule 7 not used."

SCHEDULE 2

Not used

SCHEDULE 3

Not used

SCHEDULE 4

Not used

SCHEDULE 5

Not used.

SCHEDULE 6

Third party agreements

- Grant Funding Agreement
- Official copy of the registered title and title plan of title number EGL525981

SCHEDULE 7

Contractor's deed[s] of collateral warranty

COLLATERAL WARRANTY IN FAVOUR OF THE DLUHC

Date.....2023

Collateral Warranty
from contractor to the DLUHC
relating to unsafe cladding remedial works at Spectrum Building

Fleetwood Architectural Aluminium Limited ⁽¹⁾

The Secretary of State for Levelling Up, Housing and Communities ⁽²⁾ and
Arinium Limited ⁽³⁾

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DATE..... 2023

parties

- (1) FLEETWOOD ARCHITECTURAL ALUMINIUM LIMITED (No. 03321897) whose registered office is Fleetwood House, 480 Bath Road, Slough, Berks SL1 6BB (Contractor).
- (2) THE SECRETARY OF STATE FOR LEVELLING UP, HOUSING AND COMMUNITIES whose principal office is at 2nd floor NW, Fry Building, 2 Marsham Street, London, SW1P 4DF, United Kingdom (DLUHC).
- (3) ARINIUM LIMITED (No. 11784090) whose registered office is 310 Harrow Road, Wembley HA8 6LL (Employer).

Background

- (A) By the Contract, the Employer has employed the Contractor to design, carry out and complete Remedial Works at the Site on the terms and subject to the conditions set out in the Contract.
- (B) The Ministry of Housing, Communities and Local Government (now the Department for Levelling Up, Housing and Communities or DLUHC) has established the Building Safety Fund. The Building Safety Fund provides funding for the replacement of Unsafe Cladding systems on private residential buildings.
- (C) Pursuant to a funding agreement dated on or around the date of this Agreement between the DLUHC, the Delivery Partner and the Employer, the DLUHC has agreed to fund the Remedial Works at the Site (**Funding Agreement**).
- (D) The Contractor has agreed to enter into this Agreement for the benefit of the DLUHC and its successors in title and assigns.

AGREED TERMS

In consideration of the payment of £1 by the DLUHC to the Contractor (receipt of which is hereby acknowledged) and which the parties hereby agree to be full and valuable consideration it is hereby agreed that:

1. DEFINITIONS AND INTERPRETATION

- 1.1 In this Agreement the words below have the meanings next to them unless the context requires otherwise:

ACM aluminium composite material.

ACM Cladding ACM cladding which shall include the components that are attached to the primary structure of a building to form a non-

structural external surface. The cladding includes the weather-exposed outer layer or screen, fillers, insulation, membranes, brackets, cavity barriers, flashings, fixings, gaskets and sealants.

Business Day a day which is not a Saturday or Sunday or a bank or national holiday in England.

Cladding components that are attached to the primary structure of a building to form a non-structural surface and includes the weather-exposed outer layer or screen, fillers, insulation, membranes, brackets, cavity barriers, flashing, fixings, gaskets and sealants.

Class A1 European Classification Class A1, classified in accordance with BS EN 13501-1:2007+A1:2009 entitled “Fire classification of construction products and building elements. Classification using test data from reaction to fire tests” (ISBN 978 0 580 59861 6) published by the British Standards Institution on 30th March 2007 and amended in November 2009.

Class A2-s1, d0 European Classification A2-s1, d0 classified in accordance with BS EN 13501-1:2007+A1:2009 entitled “Fire classification of construction products and building elements. Classification using test data from reaction to fire tests” (ISBN 978 0 580 59861 6) published by the British Standards Institution on 30th March 2007 and amended in November 2009.

Construction Regulations **Products** the Construction Products Regulations 2013 (SI 2013/1387), the Construction Products Regulation (305/2011/EU), the Construction Products Regulations 1991 (SI 1991/1620) and the Construction Products Directive (89/109/EC).

Contract	the contract between the Employer and the Contractor dated [●] for the design, carrying out and completion of Remedial Works including any documents or arrangements which are supplemental or ancillary to it by way of variation or otherwise.
Delivery Partner	Greater London Authority.
EU Exit	the UK ceasing to be a member state of the European Union and ceasing to be subject to any transitional arrangements which substantively treat the UK as a member state of the European Union.
Funding Agreement	has the definition ascribed to it in recital (C).
Material	all designs, drawings, calculations, charts, diagrams, sketches, models, plans, specifications, design details, photographs, brochures, reports, notes of meetings, CAD materials, data, databases, schedules, programmes, bills of quantities, budgets, surveys, levels, setting out dimensions and/or other documents or materials produced or prepared by or on behalf of the Contractor in relation to and/or connection with the Remedial Works and/or Site (whether in existence or to be made) and all updates, amendments, additions and revisions to them and any works, designs or inventions contained incorporated or referred to in them for any purpose relating to the Remedial Works and/or Site.
Non-ACM Cladding	means (i) cladding systems (other than cladding systems which include ACM Cladding) which incorporate panels achieving European Class C-s1,d0 or worse in combination with any class of insulation, or cladding systems with panels achieving Class B-s1,d0 or lower, unless the system has achieved a BR135 certificate pursuant to a BS8414 test, and/or (ii) any building with insulation or filler achieving Class B-s1,d0 or lower that is not installed in line with a cladding system that has a BR135 certificate pursuant to a BS8414 test and both (i) and (ii) shall include the components that are attached to the primary structure of a building to form a non-structural external surface. The

cladding includes the weather-exposed outer layer or screen, fillers, insulation, membranes, brackets, cavity barriers, flashings, fixings, gaskets and sealants.

Practical Completion	the date of practical completion of the Remedial Works in accordance with the definition of "practical completion" (or equivalent) in the Contract and if there is no such definition (or equivalent) it means the date on which the Delivery Partner is satisfied that the Remedial Works have been completed in accordance with the Funding Agreement.
Remedial Works	the building works for the removal of the Unsafe Cladding on each of the buildings at the Site and replacement with Cladding that is of Class A1 or Class A2-s1, d0 standard.
Site	building(s) known as Spectrum Building being the land comprised within title number TGL448901 upon which the Remedial Works are to be performed.
Unsafe Cladding	<p>any Non-ACM Cladding that has been identified as containing combustible materials and which failed the series of BS8414 tests commissioned by the government over summer 2017. Full details are set out in the consolidated advice note published by the Building Safety Programme on 5 September 2017, available here:</p> <p>https://www.gov.uk/government/publications/building-safety-programme-update-and-consolidated-advice-for-building-owners-following-large-scale-testing</p>

1.2 In this Agreement unless the context requires otherwise:

- 1.2.1 references to a Clause or Schedule are to a clause of, or schedule to this Agreement, references to this Agreement include its schedules, and references in a Schedule to a paragraph are to a paragraph of that Schedule;
- 1.2.2 references to this Agreement or any other document are to this Agreement or that document as amended from time to time;
- 1.2.3 words denoting the singular include the plural and vice versa;
- 1.2.4 references to a person include any corporate or unincorporated body;

- 1.2.5 the table of contents and headings in this Agreement do not affect its interpretation;
- 1.2.6 the terms **including, include, in particular** or any similar expression shall be construed as illustrative and shall not limit the sense of the words preceding those terms;
- 1.2.7 references to the parties include their respective successors in title, permitted assignees, estates and legal personal representatives;
- 1.2.8 unless otherwise specified, a reference to a statutory provision is a reference to that provision as amended, consolidated, extended or re-enacted from time to time (whether before or after the date of this Agreement) and to any subordinate legislation made under it except to the extent that it would increase the liability of any party under this Agreement;
- 1.2.9 if the Contractor is a partnership each partner shall be jointly and severally liable under this Agreement. Where the context so requires and where the Contractor is a partnership, the term **Contractor** shall be deemed to include any additional partner(s) who may be admitted into the partnership of the Contractor during the currency of this Agreement. This Agreement shall not automatically terminate upon the death, retirement or resignation of one or more members of such partnership; and
- 1.2.10 unless the context otherwise requires, any reference to European Union law that is directly applicable or directly effective in the UK at any time is a reference to it as it applies in England and Wales from time to time including as retained, amended, extended or re-enacted on or after EU Exit.

2. EXERCISE OF SKILL AND CARE

- 2.1 The Contractor warrants and undertakes to the DLUHC that it has observed and performed and shall continue to observe and perform each and all of its duties and obligations contained in or implied by the Contract. Save as expressly provided for in this Agreement the liability of the Contractor is to be treated as being no greater or longer than it would have been if the DLUHC had been a party to the Contract instead of this Agreement and the Contractor shall be entitled in defence of any action or proceedings by the DLUHC under this Agreement to raise equivalent rights of defence of liability as it would have against the Employer under the Contract but neither this provision nor any other provision in this Agreement shall entitle the Contractor to raise any defence based on set-off or counterclaim and/or prevent the DLUHC from recovering loss and/or damage from the Contractor as a result of the Contractor's breach of any provisions of this Agreement on the basis that the Employer has not suffered any loss and/or damage and/or the same loss and/or damage and the Contractor hereby irrevocably agrees and undertakes not to raise any such arguments by way of defence and/or set-off and/or counterclaim to any claim made by the DLUHC.

2.2 Without prejudice to the generality of Clause 2.1, the Contractor further warrants and undertakes to the DLUHC that:

2.2.1 it has exercised and shall continue to exercise all reasonable skill, care and diligence in the performance of the Remedial Works to be expected of a properly qualified and competent designer of the relevant discipline experienced in performing similar services, duties and obligations in relation to developments of a similar nature, value, scope, character, complexity and timescale to the Remedial Works in:

- (1) the design of the Remedial Works and of any part or parts of the Remedial Works to the extent that the Contractor has been or shall be responsible for such design; and
- (2) the selection of goods and materials for the Remedial Works or any part or parts of the Remedial Works to the extent that such goods and materials have been or shall be selected by or on behalf of the Contractor;

2.2.2 the Remedial Works shall on completion satisfy all performance specifications and other requirements contained or referred to in the Contract;

2.2.3 the Remedial Works and all materials and goods comprised in them shall correspond as to description, quality and condition with the requirements of the Contract and shall be of sound manufacture and workmanship; and that

2.2.4 the Contractor in carrying out the Remedial Works, and the Remedial Works on completion shall comply with all applicable statutory and regulatory requirements.

For the avoidance of doubt, under the provisions of Clauses 2.2.2 and/or 2.2.3, the Contractor does not warrant that the Works when complete shall be fit for purpose.

2.3 The Contractor acknowledges that the DLUHC has relied and shall rely on the warranties under this Clause 2 and the other terms of this Agreement and may and/or shall suffer loss and/or damage in the event of a breach of these warranties and/or the other terms of this Agreement.

2.4 The obligations of the Contractor under this Agreement shall not be released or diminished by the appointment of any person by the DLUHC to carry out any independent enquiry into any matter.

3. OBLIGATIONS PRIOR TO TERMINATION OF THE CONTRACT

3.1 The Contractor warrants and undertakes to the DLUHC that it shall not exercise or seek to exercise any right of termination of the Contract and/or to discontinue the performance of any of its duties and/or obligations thereunder for any reason whatsoever (including any duties and/or obligations in relation to the Remedial Works by reason of breach on the part of the Employer)

without giving to the DLUHC not less than 28 days' notice of its intention to do so and specifying the grounds for the proposed termination and/or discontinuance.

- 3.2 Any period stipulated in the Contract for the exercise by the Contractor of a right of termination of the Contract and/or to discontinue the performance of any of its duties and/or obligations in relation to the Remedial Works shall be extended as may be necessary to take account of the period of notice required under Clause 3.1.
- 3.3 Compliance by the Contractor with the provisions of Clause 3 shall not be treated as a waiver of any breach on the part of the Employer giving rise to the right of termination of the Contract and/or to discontinue the performance of any of the Contractor's duties and/or obligations in relation to the Remedial Works, nor otherwise prevent the Contractor from exercising its rights after the expiration of the notice unless the right of termination and/or right to discontinue shall have ceased under the provisions of Clause 4.

4. OBLIGATIONS OF THE CONTRACTOR TO THE DLUHC

- 4.1 The right of the Contractor to terminate the Contract and/or to discontinue the performance of any of its duties and/or obligations shall cease within the period of 28 days referred to in Clause 3.1 if the DLUHC shall give written notice to the Contractor:
 - 4.1.1 requiring the Contractor to continue performing its duties and obligations under the Contract in relation to the Remedial Works;
 - 4.1.2 acknowledging that the DLUHC is assuming all the duties and obligations of the Employer under the Contract;
 - 4.1.3 undertaking unconditionally to the Contractor to discharge all payments which may subsequently become due to the Contractor under the terms of the Contract, subject to the same right to deduct retentions as would have applied to the Employer under the Contract;

and shall pay to the Contractor any sums which have become due and payable to it under the Contract but which were then unpaid, subject to the same right to deduct retentions as would have applied to the Employer under the Contract.

- 4.2 Upon compliance by the DLUHC with the requirements of Clause 4.1 the Contract shall continue in full force and effect as if the right of termination and/or discontinuance on the part of the Contractor had not arisen and in all respects as if the Contract had been made between the Contractor and the DLUHC to the exclusion of the Employer.
- 4.3 Notwithstanding that as between the Employer and the Contractor the Contractor's rights of termination of the Contract and/or discontinuance may not have arisen, the provisions of Clause 4.2 shall nevertheless apply if the

DLUHC gives notice to the Contractor and the Employer to that effect and the DLUHC complies with the requirements on its part under Clause 4.1.

- 4.4 The Contractor shall not be concerned or required to enquire whether, and shall be bound to assume that, as between the Employer and the DLUHC the circumstances have occurred permitting the DLUHC to give notice under Clause 4.1.
- 4.5 The Contractor acting in accordance with the provisions of this Clause 4 shall not by so doing incur any liability to the Employer.

5. INTELLECTUAL PROPERTY RIGHTS

- 5.1 All rights including copyright in all the Materials, if any, shall remain vested in the Contractor but, subject to the Contractor having been paid all sums due and payable under the Contract, the DLUHC and its appointee shall have an irrevocable, royalty-free, non-exclusive licence to copy and use the Materials and to reproduce the designs and content of them for any purpose relating to the Remedial Works including, without limitation, the construction, completion, maintenance, letting, sale, promotion, advertisement, reinstatement, refurbishment and repair of the Remedial Works. Such licence shall enable the DLUHC and its appointee to copy and use the Contractor's Materials for an extension of the Remedial Works but shall not include any right or licence to reproduce the designs contained in them for any extension of the Remedial Works. The Contractor shall not be liable for any such use by the DLUHC or its appointee of any of the Materials for any purpose other than that for which they were prepared.

6. INSURANCE

- 6.1 The Contractor warrants to the DLUHC that:
- 6.1.1 it maintains, has at all relevant times maintained, and shall continue to maintain throughout the duration of the Remedial Works and for a period of 6 years following Practical Completion (irrespective of any termination of the Contract or the Contractor's employment under the Contract for any reason) professional indemnity insurance with reputable insurers lawfully carrying on such insurance business in the United Kingdom at commercially reasonable rates and terms with a limit of indemnity and basis of cover of not less than that set out in the Contract to cover any claims made under this Agreement against the Contractor in relation to the Remedial Works; and
- 6.1.2 it has at all relevant times maintained
- (1) an all risks insurance policy (to the extent required under the Contract); and
- (2) a public liability insurance policy
- covering the usual risks covered by these types of policies in respect of the Remedial Works.

- 6.2 As and when reasonably required by the DLUHC the Contractor shall provide satisfactory documentary evidence of the terms of insurance referred to in Clause 6.1 and that it has at all times maintained and shall continue to maintain at all times the insurance referred to in Clause 6.1, and shall confirm that payment has been made in respect of the last preceding premium due under such insurance.
- 6.3 The Contractor warrants that it has at all relevant times observed and shall continue to observe all of the conditions of the insurance policy referred to in Clause 6.1 and all of the insurance provisions contained or referred to in the Contract.
- 6.4 The Contractor shall as soon as reasonably practicable inform the DLUHC if the insurance referred to in Clause 6.1.1 ceases to be available at commercially reasonable rates and terms and shall obtain such reduced cover (if any) as is available and as would be fair and reasonable in the circumstances for the Contractor to obtain. For the purposes of this Clause 6, commercially reasonable rates shall mean such level of premium rates at which other contractors of a similar size and financial standing as the Contractor at each renewal date generally continue to take out such insurance. For the avoidance of doubt, any increased or additional premium required by insurers by reason of the Contractor's own claims record or other acts, errors, omissions, negligence, breaches, defaults, matters or things particular to the Contractor shall be deemed to be within commercially reasonable rates.
- 6.5 To the extent the Contractor is not obliged to maintain an all risks insurance policy under the Contract, the Employer warrants to DLUHC that it has at all relevant times maintained an all risks insurance policy covering the usual risks covered by this type of policy in respect of the Remedial Works and the provisions of Clauses 6.2 and 6.3 shall apply to the Employer in place of the Contractor in respect of such all risks insurance policy mutatis mutandis.

7. HEALTH AND SAFETY

- 7.1 The Contractor warrants that it has complied and shall comply with all of its obligations in relation to the Remedial Works as set out in the Construction (Design and Management) Regulations 2015.
- 7.2 The Contractor warrants that, in relation to the Remedial Works, it has complied and shall comply with the Health and Safety at Work etc. Act 1974 and all regulations made thereunder.

8. EXCLUDED MATERIALS

- 8.1 The Contractor warrants that it has not and shall not use and/or permit the use of and/or specify for use in or in connection with the Remedial Works any substances materials equipment products kit practices or techniques which by their nature or application do not conform with relevant British Standards or Codes of Practice or regulations or good building practice or any European Union equivalent current at the time of use or permission or specification, nor

any substances materials equipment products kit practices or techniques which are generally known or generally suspected within the Contractor's trade and/or the construction industry:

- 8.1.1 to be deleterious in the particular circumstances in which they are used or specified for use to the health or safety of any person;
- 8.1.2 to be deleterious in the particular circumstances in which they are used or specified for use to the health, safety, stability, performance, physical integrity and/or durability of the Remedial Works or any part thereof and/or to other structures, finishes, plant and/or machinery;
- 8.1.3 not to comply with or have due regard to the report entitled "Good Practice in the Selection of Construction Materials" (current edition) published by the British Council for Offices; and/or
- 8.1.4 to be supplied or placed on the market in breach of the Construction Products Regulations.

9. COMMUNICATIONS

- 9.1 Except as otherwise provided for in this agreement, all notices or other communications under or in respect of this agreement to either party shall be in writing and, unless otherwise stated, may be made by letter or by electronic mail.
- 9.2 Where communications are sent by letter, by personal delivery or by sending it recorded postal delivery, in the case of:
 - 9.2.1 the DLUHC, this shall be to the address specified at the head of this agreement and marked for the attention of the Director of Building Remediation & Grenfell or to such other address as notified in writing by DLUHC to the other parties;
 - 9.2.2 the Consultant, this shall be to the address specified at the head of this agreement and marked for the attention of a board level director or member of the Consultant's or such other address as notified in writing by the Consultant to the other parties;
 - 9.2.3 the Employer, this shall be to the address specified at the head of this agreement and marked for the attention of a board level director or member of the Employer or such other addresses as notified in writing by the Employer to the other parties.
- 9.3 Any notice or other communication to be made between the parties by electronic mail shall be made to the email address specified in the signature block for the relevant party or such alternative as may be supplied by them to the other parties from time to time by not less than five Business Days' notice.
- 9.4 Any written notice or other communication sent by post will be deemed served and received on the second Business Day following the day of posting and

where delivered personally will be deemed to have been served when delivered.

- 9.5 Any such electronic notice as specified in clause 9.3 above made between the parties will be effective only when actually received in readable form.
- 9.6 Any electronic notice or other communication which becomes effective, in accordance with clause 9.3 above, after 5:00pm in the place in which the party to whom the relevant communication is sent or made available has its address for the purpose of this agreement shall be deemed only to become effective on the following Business Day.
- 9.7 With respect to service by email, only a response or communication issued by a member of issuing party's legal team or senior management shall constitute a formal response to legal proceedings.

10. CONCURRENT LIABILITIES

The rights and benefits conferred upon the DLUHC by this Agreement are in addition to any other rights and remedies it may have against the Contractor including, without prejudice to the generality of the foregoing, any remedies in negligence.

11. ASSIGNMENT

- 11.1 The DLUHC may without the consent of the Contractor from time to time assign transfer and/or charge the benefit of all or any of the Contractor's obligations under this Agreement and/or any benefit arising under or out of this Agreement by absolute assignment on three occasions only. In this Agreement references to the DLUHC include where the context admits its assignees.
- 11.2 The Contractor shall not be entitled to contend that any person to whom this Agreement is assigned in accordance with Clause 11.1 is precluded from recovering under this Agreement any loss incurred by such assignee resulting from any breach of this Agreement (whenever happening), by reason that such person is an assignee and not a named party under this Agreement.
- 11.3 The Contractor shall not be entitled to assign, transfer and/or charge the benefit of any (if any) of the DLUHC's obligations under this Agreement and/or any benefit (if any) arising to the Contractor out of this Agreement.

12. LIMITATION PERIOD

The liability of the Contractor under this Agreement shall cease 6 years following Practical Completion save in relation to any claims made by the DLUHC against the Contractor and/or notified by the DLUHC to the Contractor in writing prior thereto.

13. EMPLOYER

The Employer agrees that it shall not take any steps which would prevent or hinder the DLUHC from exercising its rights under this Agreement and confirms that the rights of the DLUHC in Clauses 3 and 4 override any obligations of the Contractor to the Employer under the Contract.

14. GOVERNING LAW AND JURISDICTION

- 14.1 This Agreement and any dispute or claim arising out of or in connection with it or its subject matter or formation (including non-contractual disputes or claims) shall be governed by and construed in accordance with the law of England and Wales.
- 14.2 The parties irrevocably submit to the exclusive jurisdiction of the courts of England and Wales which shall have jurisdiction to hear and decide any suit, action or proceedings and/or to settle any dispute or claim which may arise out of or in connection with this Agreement or its subject matter or formation (including non-contractual disputes or claims).

15. RIGHTS OF THIRD PARTIES

Unless the right of enforcement is expressly provided for it is not intended that a third party should have the right to enforce a provision of this Agreement pursuant to the Contracts (Rights of Third Parties) Act 1999. This Clause 15 shall not affect or prevent any assignees who take the benefit of this Agreement pursuant to Clause 11 or successors in title to the DLUHC from enforcing the provisions of this Agreement.

16. ELECTRONIC EXECUTION

The parties acknowledge and agree that this Agreement may be executed by electronic signature (whatever form the electronic signature takes) and that this method of signature is conclusive of the parties intention to be bound by this Agreement as if signed by the parties manuscript signature.

17. COUNTERPARTS

This Agreement may be executed in any number of counterparts, but will not take effect until each Party has executed at least one counterpart. Each counterpart will constitute an original, but all the counterparts together will constitute a single agreement.

Signed for and on behalf of **FLEETWOOD ARCHITECTURAL ALUMINIUM LIMITED**

[Redacted Signature]

.....

Director's signature

[Redacted Name]

Director's name

Signed for and on behalf of **THE SECRETARY OF STATE FOR LEVELLING UP, HOUSING AND COMMUNITIES**

Email: BSF@levellingup.gov.uk

.....

Authorised Signatory's signature

.....

Authorised Signatory's name

Signed for and on behalf of **ARINIUM LIMITED**

[Redacted Signature]

.....

Director's signature

[REDACTED]

Director's name

EXECUTED as deed by **ARNIUM LIMITED**
acting by [NAME OF DIRECTOR], a director in
the presence of

Signature of Witness

[SIGNATURE OF DIRECTOR]
Director

Name of Witness

Address of Witness

Occupation of Witness

EXECUTED as deed by **FLEETWOOD
ARCHITECTUAL ALUMINIUM LIMITED**
acting by [NAME OF DIRECTOR], a director in
the presence of

Signature of Witness

[SIGNATURE OF DIRECTOR]
Director

Name of Witness

Address of Witness

Occupation of Witness

APPENDIX A**Contract Particulars**

	Contract Particulars	
<i>Clause etc.</i>	<i>Subject</i>	
Fourth Recital and clause 4.5	Construction Industry Scheme (CIS)	Employer at the Base Date is not a 'contractor' for the purposes of the CIS
Fifth Recital	Description of Sections (if any)	Not applicable
Sixth Recital	Framework Agreement (if applicable)	Not applicable
Seventh Recital and Part 1 of Schedule 2	Supplemental Provisions – Part 1.	
	Named Sub-Contractors	Supplemental Provision 1 does not apply
	Valuation of Changes – Contractor's estimates	Supplemental Provision 2 does not apply
	Loss and expense – Contractor's estimates	Supplemental Provision 3 does not apply
Seventh Recital and Part 2 of Schedule 2	Supplemental Provisions - Part 2	
	Acceleration Quotation	Supplemental Provision 4 does not apply
	Collaborative working	Supplemental Provision 5 applies

	Health and safety	Supplemental Provision 6 applies
	Cost savings and value improvements	Supplemental Provision 7 applies
	Sustainable development and environmental considerations	Supplemental Provision 8 does not apply
	Performance Indicators and monitoring	Supplemental Provision 9 does not apply
	Notification and negotiation of disputes	Supplemental Provision 10 does not apply
Article 4	Employer's Requirements	As appended at Appendix B
Article 4	Contractor's Proposals	As appended at Appendix C
Article 4	Contract Sum Analysis	As set out in Section 2 of the Contractor's Proposals
Article 8	Arbitration	Article 8 and clauses 9.3 to 9.8 (<i>Arbitration</i>) do not apply
1.1	Base Date	27 July 2023
1.1	BIM Protocol (where applicable)	Not applicable
1.1	Date for Completion of the Works	23 July 2024
1.7	Addresses for service of notices by the Parties.	Employer 310 Harrow Road, Wembley HA9 6LI Contractor

		Fleetwood House, 480 Bath Road, Slough, Berkshire SL1 6BB
2.3	Date of Possession of the site	4 December 2023
2.4	Deferment of possession of the site	Clause 2.4 does not apply
2.17.3	Limit of Contractor's liability for loss of use etc. (if any)	Not applicable
2.29.2	Liquidated damages	at the rate of £1,500 per week, or pro-rata for part of a week
2.35	Rectification Period	12 months from the date of practical completion of the Works
4.2, 4.12 and 4.13	Fluctuations Provision	No Fluctuations Provision applies
4.6	Advance payment	Clause 4.6 does not apply
	Advance Payment Bond	An advance payment bond is not required
4.7.1	Method of payment – alternatives	periodically in accordance with Alternative B (clause 4.13)
4.7.2	Interim payments – Interim Valuation Dates	The first Interim Valuation Date is one month after the Date of Possession and thereafter the same date in each month or the nearest Business Day in that month.
4.17	Contractor's Retention Bond	Clause 4.17 does not apply

4.18.1	Retention Percentage	5 (five) per cent
5.5	Daywork	<p>The Percentage Additions to each section of the prime cost or, if they apply in respect of labour, the All-Inclusive Rates, are set below</p> <ul style="list-style-type: none"> - Labour: £45 per hour - Materials: net cost + 30% - Plant: net cost + 30% - OH&P on variations: 24% plus
6.4.1	Contractor's Public Liability insurance: injury to persons or property – the required level of cover is not less than	<p>£10,000,000.00</p> <p>for any one occurrence or series of occurrences arising out of one event</p>
6.5.1	Insurance – liability of the Employer	<p>Minimum amount of indemnity for any one occurrence or series of occurrences arising out of one event</p> <p>£10,000,000.00</p>
6.7 and Schedule 3	Works insurance – Insurance Option applicable	<p>Schedule 3:</p> <p>Insurance Option C.2 applies</p>
	Percentage to cover professional fees	15 (fifteen) per cent
	Where Insurance Option C applies, paragraph C.1	does not apply
6.10 and Schedule 3	Terrorism Cover – details of the required cover	Not applicable
6.15	Professional Indemnity insurance	

	<p>Level of cover</p> <p><i>A period of insurance for these purposes shall be one year</i></p>	<p>Amount of indemnity required is the aggregate amount for any one period of insurance</p> <p>And is £5,000,000.00</p>
	Cover for pollution and contamination claims	is not required
	Expiry of required period of Professional Indemnity insurance is	12 years
6.17	Joint Fire Code	The Joint Fire Code applies
	If the Joint Fire Code applies, state whether the insurer under Insurance Option A, B or C (paragraph C.2) has specified that the Works are a 'Large Project':	No
6.20	Joint Fire Code – amendments/revisions (The cost shall be borne by the Contractor unless otherwise stated.)	The cost, if any, of compliance with amendment(s) or revision(s) to the Joint Fire Code shall be borne by the Contractor
7.2	Assignment/grant by Employer of rights under clause 7.2	Clause 7.2 applies
7.3.1	Performance bond or guarantee from bank or other approved surety	is not required
7.3.2	Guarantee from the Contractor's parent company	is not required
7.4	Third Party Rights and Collateral Warranties – details of the requirements for the grant by the Contractor and sub-contractors of P&T Rights, Funder Rights	Refer to clause 7.4

	and/or (in the case of sub-contractors) Employer Rights in respect of the Works, either as third party rights or by collateral warranties ('Rights Particulars') are set out in the following document	
8.9.2	Period of suspension	2 months
8.11.1.1 to 8.11.1.6	Period of suspension	2 months
9.2.1	Adjudication	The nominating body is the Royal Institution of Chartered Surveyors

APPENDIX B

Employer's Requirements

EMPLOYER'S REQUIREMENTS

PROJECT WORKS	Remediation of Cladding System
ADDRESS	22 Freshwater Road, Dagenham RM8 1EH
CLIENT	Arinium Limited
DATE	27 September 2023



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SECTION 2 - Scope of Works

APPENDICIES

APPENDIX A - Brief for Delivery of PCSA (Pre Construction Services Agreement)
dated 02 August 2022

APPENDIX B - PCSA 2016 Pre-Construction Services Agreement - executed

APPENDIX C - Facade Survey Assessment Report (Incl. EWS1 Determination)

APPENDIX D - Official Copy of Register - EDOC Registration EGL525981

Prepared By:

.....
[Redacted Signature]

Authorised By:

.....
[Redacted Signature]

Date: 27 September 2023

Employer's Requirements
The Spectrum Building

SECTION 1

NBS PRELIMINARIES

Navigation Management Limited

The Spectrum Building, Dagenham

Facade Remediation Works

27-09-2023

Replacement of the external cladding to the building and associated works as required to enable an EWS 1 Option A form to be issued for the building (all in accordance with MHCLG and Building Safety Fund guidance and requirements)

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A10

Project particulars

Clauses

110 The Project

1. Name: Replacement of the external cladding to the building and associated works as required to enable an EWS 1 Option A form to be issued for the building (all in accordance with MHCLG and Building Safety Fund guidance and requirements)
2. Nature: Facade remediation works
3. Location: 22 Freshwater Road, Dagenham RM8 1EH
4. Timescale for construction work: 40 weeks

120 Employer (Client)

1. Name: Arinium Limited
2. Address: 310 Harrow Road, Wembley HA9 6LL

123 Project Manager

1. Name: HartDixon
2. Address: 14 Devonshire Square, London EC2M 4YP
3. Contact: [REDACTED]
4. Telephone: [REDACTED]
5. Email: [REDACTED]

130 Principal contractor (CDM)

1. Name: Fleetwood Architectural Aluminium Limited
2. Address: Fleetwood House, 480 Bath Road, Slough, Berkshire SL1 6BB
3. Contact: [REDACTED]
4. Telephone: [REDACTED]
5. Email: J [REDACTED]

140 Employer's Agent

1. Name: HartDixon
2. Address: 14 Devonshire Square, London EC2M 4YP
3. Contact: [REDACTED]
4. Telephone: [REDACTED]
5. Email: [REDACTED]

150 Principal designer

1. Name: see clause A10/ 123.

160 Quantity Surveyor

1. Name: Navigation Management Ltd
2. Address: 1 K D Plaza, Hemel Hempstead, Hertfordshire HP1 1AX
3. Contact: [REDACTED]
4. Email: [REDACTED]

Ω End of Section

A11

Tender and contract documents

Clauses

110 Tender Drawings

1. The tender drawings are: as per Contractor's Proposal

120 Contract drawings

1. The contract drawings: The same as the tender drawings.

160 Pre-construction information

1. **Format:** The pre-construction information is described in these Preliminaries in section A34. It refers to information given elsewhere in the Preliminaries, specification, drawings and associated documents.

Ω End of Section

A12

The site/ existing buildings

Clauses

110 The site

1. **Description:** Residential apartment block

120 Existing buildings on/ adjacent to the site

1. **Description:** Residential dwellings

200 Access to the site

1. **Limitations:** The Contractor will comply with traffic and other regulations with regard to access to and from the site in consideration of all size limits that the access allows to the building site. The Contractor is to note that the surrounding roads are in constant use and must be kept clear at all times.
2. **Access for inspections:** Provide access at reasonable times for both on-site and off-site work.

210 Parking

1. **Restrictions on parking of the Contractor's and employees' vehicles:** The Contractor should ascertain for himself any general restrictions to parking and plan appropriately for this during the project. On-site parking should be agreed with the building owner/ residents. All parking off-site will be in accordance with the Local Rules and Local Authority's Parking Regulations only.

220 Use of the site

1. **General:** Do not use the site for any purpose other than carrying out the Works.

250 Site visit

1. **Assessment:** Ascertain the nature of the site, access thereto and all local conditions and restrictions likely to affect the execution of the Works.
2. **Arrangements for visit:** via Employer's Agent

Ω End of Section

A13

Description of the work

Clauses

120 The works

1. **Description:** Removal and replacement of cladding and balconies decking with associated works

Ω End of Section

A20

JCT design and build contract (DB)

JCT design and build contract

Clauses

- Refer to the Schedule of Amendments.

The recitals

- Refer to the Schedule of Amendments.

Articles

- Refer to the Schedule of Amendments.

Contract particulars

- Refer to the Schedule of Amendments.

The conditions

- Refer to the Schedule of Amendments.

Amendments

- refer to Schedule of Amendments.

Ω End of Section

A30

Tendering/ subletting/ supply

Main contract tendering

110 Scope

1. **General:** These conditions are supplementary to those stated in the Invitation to Tender and in the form of tender.

145 Tendering procedure

1. **General:** In accordance with the principles of: one stage tender.
2. **Arithmetical errors:** Overall price is dominant.

160 Exclusions

1. **Inability to tender:** Immediately inform if any parts of the work as defined in the tender documents cannot be tendered.
2. **Relevant parts of the work:** Define those parts, stating reasons for the inability to tender.

170 Acceptance of tender

1. **Acceptance:** No guarantee is offered that any tender will be recommended for acceptance or be accepted, or that reasons for non-acceptance will be given.
2. **Costs:** No liability is accepted for any cost incurred in the preparation of any tender.

190 Period of validity

1. **Period:** After submission or lodgment, keep tender open for consideration (unless previously withdrawn) for not less than 90.
2. **Date for possession:** See section A20.

Pricing/ submission of documents

210 Preliminaries in the specification

1. The Preliminaries/ General conditions sections (A10-A56 inclusive) have been prepared in accordance with SMM7.

310 Tender

1. **General:** Tenders must include for all work shown or described in the tender documents as a whole or clearly apparent as being necessary for the complete and proper execution of the Works.

480 Programme

1. **Programme of work:** Prepare a summary showing the sequence and timing of the principal parts of the Works and periods for planning and design. Itemize any work which is excluded.
2. **Submit:** With tender

550 Health and safety information

1. **Content:** Describe the organization and resources to safeguard the health and safety of operatives, including those of subcontractors, and of any person whom the Works may affect.
2. **Include**
 - 2.1. A copy of the health and safety policy document, including risk assessment procedures.
 - 2.2. Accident and sickness records for the past five years.

- 2.3. Records of previous Health and Safety Executive enforcement action.
- 2.4. Records of training and training policy.
- 2.5. The number and type of staff responsible for health and safety on this project with details of their qualifications and duties.
3. **Submit:** Within one week of request

570 Outline construction phase health and safety plan

1. **Content:** Submit the following information within one week of request:
 - 1.1. Method statements on how risks from hazards identified in the pre-construction information and other hazards identified by the contractor will be addressed.
 - 1.2. Details of the management structure and responsibilities.
 - 1.3. Arrangements for issuing health and safety directions.
 - 1.4. Procedures for informing other contractors and employees of health and safety hazards.
 - 1.5. Selection procedures for ensuring competency of other contractors, the self-employed and designers.
 - 1.6. Procedures for communications between the project team, other contractors and site operatives.
 - 1.7. Arrangements for cooperation and coordination between contractors.
 - 1.8. Procedures for carrying out risk assessment and for managing and controlling the risk.
 - 1.9. Emergency procedures including those for fire prevention and escape.
 - 1.10. Arrangements for ensuring that all accidents, illness and dangerous occurrences are recorded.
 - 1.11. Arrangements for welfare facilities.
 - 1.12. Procedures for ensuring that all persons on site have received relevant health and safety information and training.
 - 1.13. Arrangements for consulting with and taking the views of people on site.
 - 1.14. Arrangements for preparing site rules and drawing them to the attention of those affected and ensuring their compliance.
 - 1.15. Monitoring procedures to ensure compliance with site rules, selection and management procedures, health and safety standards and statutory requirements.
 - 1.16. Review procedures to obtain feedback.

599 Freedom of Information Act

1. **Records:** Retain, make available for inspection and supply on request information reasonably required to allow response to requests made under the provisions of the Freedom of Information Act.
2. **Determination:** Submit requests received. Do not supply information to anyone other than the project participants without express written permission.
3. **Confidentiality:** Maintain at all times.

Subletting/ supply

630 Domestic subcontracts

1. **General:** Comply with the Construction Industry Board 'Code of Practice for the selection of subcontractors'.
2. **Details:** Provide details of all subcontractors and the work for which they will be responsible.
3. **Submit:** With tender

Ω End of Section

A31

Provision, content and use of documents

Definitions and interpretations

110 Definitions

1. **Meaning:** Terms, derived terms and synonyms used in the preliminaries/ general conditions and specification are as stated here or in the appropriate referenced document.

120 Communication

1. **Definition:** Includes advise, inform, submit, give notice, instruct, agree, confirm, seek, provide or obtain information, consent or instructions, or make arrangements.
2. **Format:** In writing to the person named in clause A10/140 unless specified otherwise.
3. **Response:** Do not proceed until response has been received.

130 Products

1. **Definition:** Materials, both manufactured and naturally occurring, and goods, including components, equipment and accessories, intended for the permanent incorporation in the Works.
2. **Includes:** Goods, plant, materials, site materials and things for incorporation into the Works.

135 Site equipment

1. **Definition:** Apparatus, appliances, machinery, vehicles or things of whatsoever nature required in or about the construction for the execution and completion of the Works but not materials or other things intended to form or forming part of the Permanent Works.
2. **Includes:** Construction appliances, vehicles, consumables, tools, temporary works, scaffolding, cabins and other site facilities.
3. **Excludes:** Products and equipment or anything intended to form or forming part of the permanent works.

140 Drawings

1. **Definitions:** To BSRIA BG 6, 'A design framework for building services: Design activities and drawing definitions'.
2. **CAD data:** In accordance with ISO 19650.

145 Contractor's choice

1. **Meaning:** Selection delegated to the Contractor, but liability to remain with the specifier.

150 Contractor's Design

1. **Meaning:** Design to be carried out or completed by the Contractor and supported by appropriate contractual arrangements, to correspond with specified requirements.

155 Submit proposals

1. **Meaning:** Submit information in response to specified requirements.

160 Terms used in specification

1. **Remove:** Disconnect, dismantle as necessary and take out the designated products or work and associated accessories, fixings, supports, linings and bedding materials. Dispose of unwanted materials. Excludes removal and disposal of associated pipework, wiring, ductwork or other services.

2. **Remediate:** Action or measures taken to lessen, clean up, remove or mitigate the existence of hazardous materials; in accordance with standards, or requirements as may be set out by statutes, rules, regulations or specification.
3. **Fix:** Receive, unload, handle, store, protect, place and fasten in position; dispose of waste and surplus packaging. To include all labour, materials and site equipment for that purpose.
4. **Supply and fix:** As above, but including supply of products, components or systems to be fixed, together with everything necessary for their fixing. All products, components or systems are to be supplied and fixed unless stated otherwise.
5. **Keep for reuse:** Do not damage designated products or work. Clean off bedding and jointing materials. Stack neatly, protect adequately and store until required by the employer/ purchaser, or until required for use in the works as instructed.
6. **Keep for recycling:** As 'keep for reuse' but relates to a naturally occurring material rather than a manufactured product.
7. **Make good:** Execute local remedial work to designated work. Make secure, sound and neat. Excludes redecoration and/ or replacement.
8. **Replace:** Supply and fix new products matching those removed. Execute work to match original new state of that removed.
9. **Repair:** Execute remedial work to restore something to its original working state. Make secure, sound and neat. Excludes redecoration and/ or replacement.
10. **Refix:** Fix removed products.
11. **Ease:** Adjust moving parts of designated products or work to achieve free movement and good fit in open and closed positions.
12. **Match existing:** Provide products and work of the same appearance and features as the original, excluding ageing and weathering. Make joints between existing and new work as inconspicuous as possible.
13. **System:** Equipment, accessories, controls, supports and ancillary items (including installation) necessary for that section of the work to function.

170 Manufacturer and product reference

1. **Definition:** When used in this combination:
 - 1.1. **Manufacturer:** the person or legal entity under whose name or trademark the particular product, component or system is marketed
 - 1.2. **Product reference:** the proprietary brand name and/ or identifier by which the particular product, component or system is described.
2. **Currency:** References are to the particular product as specified in the manufacturer's technical literature current on the date of the invitation to tender.

200 Substitution of products

1. **Products:** If an alternative product to that specified is proposed, obtain approval before ordering the product.
2. **Reasons:** Submit reasons for the proposed substitution.
3. **Documentation:** Submit relevant information, including:
 - 3.1. manufacturer and product reference;
 - 3.2. cost;
 - 3.3. availability;
 - 3.4. relevant standards;
 - 3.5. performance;
 - 3.6. function;
 - 3.7. compatibility of accessories;
 - 3.8. proposed revisions to drawings and specification;

- 3.9. compatibility with adjacent work;
- 3.10. appearance;
- 3.11. copy of warranty/ guarantee.
- 4. **Alterations to adjacent work:** If needed, advise scope, nature and cost.
- 5. **Manufacturers' guarantees:** If substitution is accepted, submit before ordering products.

210 Cross references

- 1. **Accuracy:** Check remainder of the annotation or item description against the terminology used in the section or clause referred to.
- 2. **Related terminology:** Where a numerical cross reference is not given, the relevant sections and clauses of the specification will apply.
- 3. **Relevant clauses:** Clauses in the referred to specification section dealing with general matters, ancillary products and execution also apply.
- 4. **Discrepancy or ambiguity:** Before proceeding, obtain clarification or instructions.

220 Referenced documents

- 1. **Conflicts:** Specification prevails over referenced documents.

230 Equivalent products

- 1. **Inadvertent omission:** Wherever products are specified by proprietary name the phrase 'or equivalent' is to be deemed included.

240 Substitution of standards

- 1. **Specification to British Standard or European Standard:** Substitution may be proposed complying with a grade or category within a national standard of another Member State of the European Community or an international standard recognized in the UK.
- 2. **Before ordering:** Submit notification of all such substitutions.
- 3. **Documentary evidence:** Submit for verification when requested as detailed in clause A31/200. Any submitted foreign language documents must be accompanied by certified translations into English.

250 Currency of documents and information

- 1. **Currency:** References to published documents are to the editions, including amendments and revisions, current on the date of the Invitation to Tender.

260 Sizes

- 1. **General dimensions:** Products are specified by their coordinating sizes.
- 2. **Timber:** Cross section dimensions shown on drawings are:
 - 2.1. Target sizes as defined in BS EN 336 for structural softwood and hardwood sections.
 - 2.2. Finished sizes for non-structural softwood or hardwood sawn and further processed sections.

Documents provided on behalf of employer

410 Additional copies of the drawings/ documents

- 1. Additional copies: Issued *Free of charge*.

440 Dimensions

- 1. **Scaled dimensions:** Do not rely on.

460 The specification

1. **Coordination:** All sections must be read in conjunction with Main Contract Preliminaries/ General conditions.

Documents provided by contractor/ subcontractors/ suppliers

510 Changes/ amendments to Employer's Requirements

1. **Contractor's changes to Employer's Requirements:** Support request for substitution or variation with all relevant information.
2. **Employer's amendments to Employer's Requirements:** If considered to involve a variation, which has not already been acknowledged as a variation, notify without delay (maximum period 7 days), and do not proceed until instructed. Claims for extra cost, if made after the variation has been carried out, may not be allowed.
3. **Submit:** two copies

620 As-built drawings and information

1. **General:** Provide the following drawings/ information:
 - 1.1. full set of as-built drawings in PDF and DWG formats.
2. **Submit:** At least two weeks before date for completion.

640 Maintenance instructions and guarantees

1. **Components and equipment:** Obtain or retain copies, register with manufacturer and hand over on or before completion of the Works.
2. **Information location:** In Building Manual.

Document/ data interchange

850 Electronic data interchange (EDI)

1. **Data:** Types and classes of communication: emails.
2. **Parties:** Between: all parties.
3. **Requirements:** to be agreed by all parties

Ω End of Section

A32

Management of the works

Generally

110 Supervision

1. **General:** Accept responsibility for coordination, supervision and administration of the Works, including subcontracts.
2. **Coordination:** Arrange and monitor a programme with each subcontractor, supplier, local authority and statutory undertaker, and obtain and supply information as necessary for coordination of the work.

118 Vehicle safety requirements

1. **Vehicle equipment:** Ensure that all vehicles have the following:
 - 1.1. Audible alert to other road users to the planned movement of the vehicle when the vehicle's indicators are in operation.
 - 1.2. Prominent signage at the rear of the vehicle to warn cyclists of the dangers of passing the vehicle on the inside.
 - 1.3. Properly adjusted class VI mirror/s or Fresnel lens to eliminate the near side blind spot.
 - 1.4. Side under run guards.
2. **Driver training**
 - 2.1. Drivers must be trained on vulnerable road user safety through an approved course and hold a current valid Certificate of Competence.
 - 2.2. Drivers must have a valid driving license and be legally able to drive the vehicle.

120 Insurance

1. **Documentary evidence:** Before starting work on site submit details, and/ or policies and receipts for the insurances required by the Conditions of Contract.

130 Insurance claims

1. **Notice:** If any event occurs which may give rise to any claim or proceeding in respect of loss or damage to the Works or injury or damage to persons or property arising out of the Works, immediately give notice to the employer/ client, the person administering the Contract on their behalf and the Insurers.
2. **Failure to notify:** Indemnify the employer/ client against any loss which may be caused by failure to give such notice.

140 Climatic conditions

1. **Information:** Record accurately and retain:
 - 1.1. Daily maximum and minimum air temperatures (including overnight).
 - 1.2. Delays due to adverse weather, including description of the weather, types of work affected and number of hours lost.

150 Ownership

1. **Alteration/ clearance work:** Materials arising become the property of the Contractor except where otherwise stated. Remove from site as work proceeds.

Programme/ progress

210 Programme

1. **Master programme:** When requested and before starting work on site, submit in an approved form a master programme for the works, which must include details of:
 - 1.1. Design, production information and proposals provided by the contractor/ subcontractors/ suppliers, including inspection and checking (see section A31).
 - 1.2. Planning and mobilization by the contractor.
 - 1.3. Earliest and latest start and finish dates for each activity and identification of all critical activities.
 - 1.4. Running in, adjustment, commissioning and testing of all engineering services and installations
 - 1.5. Work resulting from instructions issued in regard to the expenditure of provisional sums (see section A54)
 - 1.6. Work by or on behalf of the employer and concurrent with the contract (see section A50). The nature and scope of which, the relationship with preceding and following work and any relevant limitations are suitably defined in the contract documents.
2. **Exclusions:** Where and to the extent that the programme implications for work which is not so defined are impossible to assess, exclude it and confirm this when submitting the programme.
3. **Submit:** two copies

240 Notice of commencement of work

1. **Part of the work:** All
2. **Notice period (minimum):** two weeks

250 Monitoring

1. **Progress:** Record on a copy of the programme kept on site.
2. **Avoiding delays:** If any circumstances arise which may affect the progress of the Works submit proposals or take other action as appropriate to minimize any delay and to recover any lost time.

260 Site meetings

1. **General:** Site meetings will be held to review progress and other matters arising from administration of the Contract.
2. **Frequency:** Every month
3. **Location:** on site
4. **Accommodation:** Ensure availability at the time of such meetings.
5. **Attendees:** Attend meetings and inform subcontractors and suppliers when their presence is required.
6. **Chairperson (who will also take and distribute minutes):** Employer's Agent

290 Notice of completion

1. **Requirement:** Give notice of the anticipated dates of completion of the whole or parts of the Works.
2. **Associated works:** Ensure necessary access, services and facilities are complete.
3. **Period of notice (minimum):** One month

Control of cost

410 Cash flow forecast

1. **Submission:** Before starting work on site, submit a forecast showing the gross valuation of the Works at the date of each Interim Certificate throughout the Contract period. Base on the programme for the Works.

420 Removal/ replacement of existing work

1. **Extent and location:** Agree before commencement.
2. **Execution:** Carry out in ways that minimize the extent of work.

440 Measurement

1. **Covered work:** Give notice before covering work required to be measured.

450 Daywork vouchers

1. **Before commencing work:** Give reasonable notice to the person countersigning daywork vouchers.
2. **Content:** Before delivery each voucher must be:
 - 2.1. Referenced to the instruction under which the work is authorized.
 - 2.2. Signed by the Contractor's person in charge as evidence that the operatives' names, the time spent by each, the plant and materials shown are correct.

460 Interim payments

1. **Application by Contractor:** If made under Conditions of Contract clause 4.9 include details of amounts considered due together with all supporting information.

470 Products not incorporated into the Works

1. **Ownership:** At the time of each valuation, supply details of those products not incorporated into the Works which are subject to any reservation of title inconsistent with passing of property as required by the Conditions of Contract, together with their respective values.
2. **Evidence:** When requested, provide evidence of freedom of reservation of title.

Ω End of Section

A33

Quality standards/ control

Standards of products and executions

110 Incomplete documentation

1. **General:** Where and to the extent that products or work are not fully documented, they are to be:
 - 1.1. Of a kind and standard appropriate to the nature and character of that part of the Works where they will be used.
 - 1.2. Suitable for the purposes stated or reasonably to be inferred from the project documents.
2. **Contract documents:** Omissions or errors in description and/ or quantity shall not vitiate the Contract nor release the Contractor from any obligations or liabilities under the Contract.

120 Workmanship skills

1. **Operatives:** Appropriately skilled and experienced for the type and quality of work.
2. **Registration:** With Construction Skills Certification Scheme.
3. **Verification:** When requested, operatives must produce evidence of skills/ qualifications.

130 Quality of products

1. **Generally:** New. (Proposals for recycled products may be considered).
2. **Supply of each product:** From the same source or manufacturer.
3. **Whole quantity of each product required to complete the Works:** Consistent kind, size, quality and overall appearance.
4. **Tolerances:** Where critical, measure a sufficient quantity to determine compliance.
5. **Deterioration:** Prevent. Order in suitable quantities to a programme and use in appropriate sequence.

135 Quality of execution

1. **Generally:** Fix, apply, install or lay products securely, accurately, plumb, neatly and in alignment.
2. **Colour batching:** Do not use different colour batches where they can be seen together.
3. **Dimensions:** Check on-site dimensions.
4. **Finished work:** Not defective, e.g. not damaged, disfigured, dirty, faulty, or out of tolerance.
5. **Location and fixing of products:** Adjust joints open to view so they are even and regular.

140 Evidence of Compliance

1. **Proprietary products:** Retain on site evidence that the proprietary product specified has been supplied.
2. **Performance specification:** Submit evidence of compliance, including test reports indicating:
 - 2.1. Properties tested.
 - 2.2. Pass/ fail criteria.
 - 2.3. Test methods and procedures.
 - 2.4. Test results.
 - 2.5. Identity of testing agency.
 - 2.6. Test dates and times.
 - 2.7. Identities of witnesses.
 - 2.8. Analysis of results.

150 Inspections

1. **Products and executions:** Inspection or any other action must not be taken as approval unless confirmed in writing referring to:
 - 1.1. Date of inspection.
 - 1.2. Part of the work inspected.
 - 1.3. Respects or characteristics which are approved.
 - 1.4. Extent and purpose of the approval.
 - 1.5. Any associated conditions.

160 Related work

1. **Details:** Provide all trades with necessary details of related types of work. Before starting each new type or section of work ensure previous related work is:
 - 1.1. Appropriately complete.
 - 1.2. In accordance with the project documents.
 - 1.3. To a suitable standard.
 - 1.4. In a suitable condition to receive the new work.
2. **Preparatory work:** Ensure all necessary preparatory work has been carried out.

170 Manufacturer's recommendations/ instructions

1. **General:** Comply with manufacturer's printed recommendations and instructions current on the date of the Invitation to tender.
2. **Exceptions:** Submit details of changes to recommendations or instructions.
3. **Execution:** Use ancillary products and accessories supplied or recommended by main product manufacturer.
4. **Products:** Comply with limitations, recommendations and requirements of relevant valid certificates.

180 Water for the works

1. **Mains supply:** Clean and uncontaminated.
2. **Other:** Do not use until:
 - 2.1. Evidence of suitability is provided.
 - 2.2. Tested to BS EN 1008 if instructed.

Samples/ approvals

210 Samples

1. **Products or executions:** Comply with all other specification requirements and in respect of the stated or implied characteristics either:
 - 1.1. To an express approval.
 - 1.2. To match a sample expressly approved as a standard for the purpose.

220 Approval of products

1. **Submissions, samples, inspections and tests:** Undertake or arrange to suit the Works programme.
2. **Approval:** Relates to a sample of the product and not to the product as used in the Works. Do not confirm orders or use the product until approval of the sample has been obtained.
3. **Complying sample:** Retain in good, clean condition on site. Remove when no longer required.

230 Approval of execution

1. **Submissions, samples, inspections and tests:** Undertake or arrange to suit the Works programme.
2. **Approval:** Relates to the stated characteristics of the sample. (If approval of the finished work as a whole is required this is specified separately). Do not conceal, or proceed with affected work until compliance with requirements is confirmed.
3. **Complying sample:** Retain in good, clean condition on site. Remove when no longer required.

Accuracy/ setting out generally

320 Setting out

1. **General:** Submit details of methods and equipment to be used in setting out the Works.
2. **Levels and dimensions:** Check and record the results on a copy of drawings. Notify discrepancies and obtain instructions before proceeding.
3. **Inform:** When complete and before commencing construction.

330 Appearance and fit

1. **Tolerances and dimensions:** If likely to be critical to execution or difficult to achieve, as early as possible either:
 - 1.1. Submit proposals; or
 - 1.2. Arrange for inspection of appearance of relevant aspects of partially finished work.
2. **General tolerances (maximum):** To BS 5606, tables 1 and 2.

350 Levels of structural floors

1. **Maximum tolerances for designed levels to be**
 - 1.1. Floors to be self-finished, and floors to receive sheet or tile finishes directly bedded in adhesive: +/- 10 mm.
 - 1.2. Floors to receive dry board/ panel construction with little or no tolerance on thickness: +/- 10 mm.
 - 1.3. Floors to receive mastic asphalt flooring/ underlays directly: +/- 10 mm.
 - 1.4. Floors to receive mastic asphalt flooring/ underlays laid on mastic asphalt levelling coat(s): +/- 15 mm.
 - 1.5. Floors to receive fully bonded screeds/ toppings/ beds: +/- 15 mm.
 - 1.6. Floors to receive unbonded or floating screeds/ beds: +/- 20 mm.

360 Record drawings

1. **Site setting out drawing:** Record details of all grid lines, setting-out stations, benchmarks and profiles. Retain on site throughout the Contract and hand over on completion.

Services generally

410 Services regulations

1. **New or existing services:** Comply with the Byelaws or Regulations of the relevant Statutory Authority.

420 Water regulations/ byelaws notification

1. **Requirements:** Notify Water Undertaker of any work carried out to (or which affects) new or existing services and submit any required plans, diagrams and details.
2. **Consent:** Allow adequate time to receive Undertaker's consent before starting work. Inform immediately if consent is withheld or is granted subject to significant conditions.

430 Water regulations/ byelaws contractor's certificate

1. **On completion of the work:** Submit (copy where also required to the Water Undertaker) a certificate including:
 - 1.1. The address of the premises.
 - 1.2. A brief description of the new installation and/ or work carried out to an existing installation.
 - 1.3. The Contractor's name and address.
 - 1.4. A statement that the installation complies with the relevant Water Regulations or Byelaws.
 - 1.5. The name and signature of the individual responsible for checking compliance.
 - 1.6. The date on which the installation was checked.

435 Electrical installation certificate

1. **Submit:** When relevant electrical work is completed.
2. **Original certificate:** To be lodged in the Building Manual.

450 Mechanical and electrical services

1. **Final tests and commissioning:** Carry out so that services are in full working order at completion of the Works.
2. **Building Regulations notice:** Copy to be lodged in the Building Manual.

Supervision/ inspection/ defective work

510 Supervision

1. **General:** In addition to the constant management and supervision of the Works provided by the Contractor's person in charge, all significant types of work must be under the close control of competent trade supervisors to ensure maintenance of satisfactory quality and progress.
2. **Evidence:** Submit, including details of the person proposed, their relevant skills training and knowledge; practical experience; qualifications; membership or registration with professional bodies; employment history, work related assessments and management structure.
3. **Submittal date:**
4. **Replacement:** Give maximum possible notice before changing person in charge or site agent.

520 Coordination of engineering services

1. **Suitability:** Site organization staff must include one or more people with appropriate knowledge and experience of mechanical and electrical engineering services to ensure compatibility between engineering and the Works generally.
2. **Evidence:** Submit when requested CVs or other documentary evidence relating to the staff concerned.

530 Overtime working

1. **Notice:** Prior to overtime being worked, submit details of times, types and locations of work to be done.
 - 1.1. **Minimum period of notice:** TBD
2. **Concealed work:** If executed during overtime for which notice has not been given, it may be required to be opened up for inspection and reinstated at the Contractor's expense.

540 Defects in existing work

1. **Undocumented defects:** When discovered, immediately give notice. Do not proceed with affected related work until response has been received.
2. **Documented remedial work:** Do not execute work which may:

- 2.1. Hinder access to defective products or work; or
- 2.2. Be rendered abortive by remedial work.

550 Access for inspection

1. Removal: Before removing scaffolding or other facilities for access, give notice of not less than

560 Tests and inspections

1. **Timing:** Agree and record dates and times of tests and inspections to enable all affected parties to be represented.
2. **Confirmation:** One working day prior to each such test or inspection. If sample or test is not ready, agree a new date and time.
3. **Records:** Submit a copy of test certificates and retain copies on site.

610 Proposals for rectification of defective products/ executions

1. **Proposals:** Immediately any execution or product is known, or appears, to be not in accordance with the Contract, submit proposals for opening up, inspection, testing, making good, adjustment of the Contract Sum, or removal and re-execution.
2. **Acceptability:** Such proposals may be unacceptable and contrary instructions may be issued.

620 Measures to establish acceptability

1. **General:** Wherever inspection or testing shows that the work, materials or goods are not in accordance with the contract and measures (e.g. testing, opening up, experimental making good) are taken to help in establishing whether or not the work is acceptable, such measures:
 - 1.1. Will be at the expense of the Contractor.
 - 1.2. Will not be considered as grounds for revision of the completion date.

630 Quality control

1. **Procedures:** Establish and maintain to ensure that the Works, including the work of subcontractors, comply with specified requirements.
2. **Records:** Maintain full records, keep copies on site for inspection, and submit copies on request.
3. **Content of records**
 - 3.1. Identification of the element, item, batch or lot including location in the Works.
 - 3.2. Nature and dates of inspections, tests and approvals.
 - 3.3. Nature and extent of nonconforming work found.
 - 3.4. Details of corrective action.

Work at or after completion

710 Work before completion

1. **General:** Make good all damage consequent upon the Works.
2. **Temporary markings, coverings and protective wrappings:** Remove unless otherwise instructed.
3. **Cleaning:** Clean the Works thoroughly inside and out, including all accessible ducts and voids. Remove all splashes, deposits, efflorescence, rubbish and surplus materials.
4. **Cleaning materials and methods:** As recommended by manufacturers of products being cleaned and must not damage or disfigure other materials or construction.
5. **COSHH dated data sheets:** Obtain for all materials used for cleaning and ensure they are used only as recommended by their manufacturers.

6. **Minor faults:** Touch up in newly painted work, carefully matching colour and brushing out edges. Repaint badly marked areas back to suitable breaks or junctions.
7. **Moving parts of new work:** Adjust, ease and lubricate as necessary to ensure easy and efficient operation, including doors, windows, drawers, ironmongery, appliances, valves and controls.

720 Security at completion

1. **General:** Leave the Works secure with, where appropriate, all accesses closed and locked.
2. **Keys:** Account for and adequately label all keys, and hand over together with an itemized schedule, retaining duplicate schedule signed as a receipt.

730 Making good defects

1. **Remedial work:** Arrange access with Employer.
2. **Rectification:** Give reasonable notice for access to the various parts of the Works.
3. **Completion:** Notify when remedial works have been completed.

Ω End of Section

A34

Security/ safety/ protection

Security, health and safety

110 Pre-construction information

1. **Location:** Integral with the project Preliminaries, including but not restricted to the following sections:
 - 1.1. **Description of project:** Sections A10 and A11.
 - 1.2. **Client's consideration and management requirements:** Sections A12, A13 and A36.
 - 1.3. **Environmental restrictions and on-site risks:** Section A12, A35 and A34.
 - 1.4. **Significant design and construction hazards:** Section A34.
 - 1.5. **The health and safety file:** Section A37.

140 Construction phase health and safety plan

1. **Submission:** Present to the employer/ client no later than 1 week prior to commencement of the works.
2. **Confirmation:** Do not start construction work until the employer has confirmed in writing that the construction phase health and safety plan includes the procedures and arrangements required by the CDM Regulations.
3. **Content:** Develop the plan from, and draw on, the outline construction phase health and safety plan, clause A30/570, and the pre-tender health and safety plan/ pre-construction information.

150 Security

1. **Protection:** Safeguard the site, the Works, products, materials, and any existing buildings affected by the Works from damage and theft.
2. **Access:** Take all reasonable precautions to prevent unauthorized access to the site, the Works and adjoining property.
3. **Special requirements:** None

160 Stability

1. **Responsibility:** Maintain the stability and structural integrity of the works and adjacent structures during the contract.
2. **Design loads:** Obtain details, support as necessary and prevent overloading.

170 Occupied premises

1. **Extent:** Existing buildings will be occupied and/ or used during the contract as follows: residential and commercial use.
2. **Works:** Carry out without undue inconvenience and nuisance and without danger to occupants and users.
3. **Overtime:** If compliance with this clause requires certain operations to be carried out during overtime, and such overtime is not required for any other reason, the extra cost will be allowed, provided that such overtime is authorized in advance.

210 Safety provisions for site visits

1. **Safety:** Submit details in advance of safety provisions and procedures (including those relating to materials which may be deleterious), which will require their compliance when visiting the site.
2. **Protective clothing and/ or equipment:** Provide and maintain on site for visitors to the-site.

Protect against the following

330 Noise and vibration

1. **Standard:** Comply with the recommendations of BS 5228-1, in particular clause 7.3, to minimize noise levels during the execution of the Works.
2. **Equipment:** Fit compressors, percussion tools and vehicles with effective silencers of a type recommended by manufacturers of the compressors, tools or vehicles.
3. **Restrictions:** Do not use:
 - 3.1. Percussion tools and other noisy appliances without consent during the hours of see A35/170.
 - 3.2. Radios or other audio equipment or permit employees to use in ways or at times that may cause nuisance.

340 Pollution

1. **Prevention:** Protect the site, the works and the general environment (including the atmosphere, land, streams and waterways) against pollution.
2. **Contamination:** If pollution occurs, report immediately, including to the appropriate authorities, and provide relevant information.

360 Nuisance

1. **Duty:** Prevent nuisance from smoke, dust, rubbish, vermin and other causes.
2. **Surface water:** Prevent hazardous build-up on-site, in excavations and to surrounding areas and roads.

370 Asbestos containing materials

1. **Duty:** Report immediately any suspected materials discovered during execution of the works.
 - 1.1. Do not disturb.
 - 1.2. Agree methods for safe removal or encapsulation.

371 Dangerous or hazardous substances

1. **Duty:** Report immediately suspected materials discovered during execution of the works.
 - 1.1. Do not disturb.
 - 1.2. Agree methods for safe removal or remediation.

380 Fire prevention

1. **Duty:** Prevent personal injury or death, and damage to the Works or other property from fire.
2. **Standard:** Comply with Joint Code of Practice 'Fire Prevention on Construction Sites', published by Construction Industry Publications and The Fire Protection Association (The 'Joint Fire Code').

390 Smoking on-site

1. **Smoking on-site:** Not permitted.

400 Burning on-site

1. **Burning on-site:** Not permitted.

420 Infected timber/ Contaminated materials

1. **Removal:** Where instructed to remove material affected by fungal/ insect attack from the building, minimize the risk of infecting other parts of the building.

2. **Testing:** carry out and keep records of appropriate tests to demonstrate that hazards presented by concentrations of airborne particles, toxins and other microorganisms are within acceptable levels.

430 Waste

1. **Waste:** Includes rubbish, debris, spoil, containers and packaging, and surplus material requiring disposal.
2. **Requirement:** Minimize production and prevent accumulation of waste. Keep the site and works clean and tidy. Clean out voids and cavities in the construction before closing.
3. **Disposal:** Collect and store in suitable containers. Remove from site and dispose of in a safe and competent manner, as approved and directed by the waste regulation authority.
4. **Recyclable material:** Sort and dispose of at a materials recycling facility approved by the waste regulation authority.
5. **Documentation:** Retain on-site.

440 Electromagnetic interference

1. **Duty:** Prevent excessive electromagnetic disturbance to apparatus outside the site.

450 Laser equipment

1. **Construction laser equipment:** Install, use and store in accordance with BS EN 60825-1 and the manufacturer's instructions.
2. **Class 1 or Class 2 laser equipment:** Ensure laser beam is not set at eye level and is terminated at the end of its useful path.
3. **Class 3R and Class 3B laser equipment:** Do not use without approval and subject to submission of a method statement on its safe use.

460 Powder actuated fixing systems

1. **Use:** Not permitted.

Protect the following

510 Existing services

1. **Confirmation:** Notify all service authorities, statutory undertakers and/ or adjacent owners of proposed works not less than one week before commencing site operations.
2. **Identification:** Before starting work, check and mark positions of utilities/ services. Where positions are not shown on drawings obtain relevant details from service authorities, statutory undertakers or other owners.
3. **Work adjacent to services**
 - 3.1. Comply with service authority's/ statutory undertaker's recommendations.
 - 3.2. **Adequately protect and prevent damage to services:** Do not interfere with their operation without consent of service authorities/ statutory undertakers or other owners.
4. **Identifying services**
 - 4.1. **Below ground:** Use signboards, giving type and depth;
 - 4.2. **Overhead:** Use headroom markers.
5. **Damage to services:** If any results from execution of the Works:
 - 5.1. Immediately give notice and notify appropriate service authority/ statutory undertaker.
 - 5.2. Make arrangements for the work to be made good without delay to the satisfaction of service authority/ statutory undertaker or other owner as appropriate.
 - 5.3. Any measures taken to deal with an emergency will not affect the extent of the Contractor's liability.

6. **Marker tapes or protective covers:** Replace, if disturbed during site operations, to service authority's/ statutory undertakers recommendations.

520 Roads and footpaths

1. **Duty:** Maintain roads and footpaths within and adjacent to the site and keep clear of mud and debris.
2. **Damage caused by site traffic or otherwise consequent upon the Works:** Make good to the satisfaction of the Employer, Local Authority or other owner.

560 Existing features

1. **Protection:** Prevent damage to existing buildings, fences, gates, walls, roads, paved areas and other site features, which are to remain in position during execution of the Works.

570 Existing work

1. **Protection:** Prevent damage to existing work, structures or other property during the course of the work.
2. **Removal:** Minimum amount necessary.
3. **Replacement work:** To match existing.

580 Building interiors

1. **Protection:** Prevent damage from exposure to the environment, including weather, flora, fauna, and other causes of material degradation during the course of the work.

625 Adjoining property restrictions

1. **Precautions**
 - 1.1. Prevent trespass of workpeople and take precautions to prevent damage to adjoining property.
 - 1.2. Pay all charges.
 - 1.3. Remove and make good on completion or when directed.
2. **Damage:** Bear cost of repairing damage arising from execution of the Works.

630 Existing structures

1. **Duty:** Check proposed methods of work for effects on adjacent structures inside and outside the site boundary.
2. **Supports:** During execution of the Works:
 - 2.1. Provide and maintain all incidental shoring, strutting, needling and other supports as may be necessary to preserve stability of existing structures on the site or adjoining that may be endangered or affected by the Works.
 - 2.2. Do not remove until new work is strong enough to support existing structure.
 - 2.3. Prevent overstressing of completed work when removing supports.
3. **Adjacent structures:** Monitor and immediately report excessive movement.
4. **Standard:** Comply with BS 5975 and BS EN 12812.

640 Materials for recycling/ reuse

1. **Duty:** Sort and prevent damage to stated products or materials, clean off bedding and jointing materials and other contaminants.
2. **Storage:** Stack neatly and protect until required by the Employer or for use in the Works as instructed.

Ω End of Section

A35

Specific limitations on method/ sequence/ timing

Clauses

110 Scope

1. **General:** The limitations described in this section are supplementary to limitations described or implicit in information given in other sections or on the drawings.

140 Scaffolding

1. **Scaffolding:** Make available to subcontractors and others at all times.

170 Working Hours

1. **Specific limitations:** Working hours are 8:00 to 18:00 Monday to Friday and 8:00 to 13:00 on Saturday in accordance with the Planning Consent granted by the Local Authority. Any works that are associated with the generation of ground borne vibration are only to be carried out between the hours of 08:00 and 18:00 Monday to Friday

Ω End of Section

A36

Facilities/ temporary work/ services

Generally

110 Spoil heaps, temporary works and services

1. **Location:** Give notice and details of intended siting.
2. **Maintenance:** Alter, adapt and move as necessary. Remove when no longer required and make good.

Accommodation

210 Room for meetings

1. **Facilities:** Provide suitable temporary accommodation for site meetings, adequately heated and lit. The room may be part of the Contractor's own site offices.
2. **Furniture and Equipment:** Provide table and chairs for 10 people.

220 Site Accommodation

1. **Purpose:** for Contractor's and site meetings
2. **Facilities:** Provide and obtain approval of suitable lockable temporary accommodation and facilities as follows:
 - 2.1. **Status:** May be part of the contractor's own accommodation
 - 2.2. **Location:** on site
 - 2.3. **Furniture and equipment:** table and chairs as necessary
 - 2.4. **Temperature control:** must be heated in winter
 - 2.5. **Lighting:** as necessary
 - 2.6. **Services:** drinking water
 - 2.7. **Sanitary facilities:** shared with general site facilities

260 Sanitary accommodation

1. **Requirement:** Provide sanitary accommodation for the Employer/ Purchaser, and other members of the consultant team, either separate or shared with the Contractor's supervisory staff. Maintain in clean condition and provide all consumables.

Temporary works

340 Name boards/ advertisements

1. **Name boards/ advertisements:** Not permitted.

Services and facilities

410 Lighting

1. **Finishing work and inspection:** Provide temporary lighting, the intensity and direction of which closely resembles that delivered by the permanent installation.

420 Lighting and power

1. **Supply:** Electricity from the existing mains may be used for the Works as follows:
 - 1.1. **Metering:** Free of charge
 - 1.2. **Point of supply:** Property supply

- 1.3. Frequency: 50 Hz.
- 1.4. Current: Alternating.
- 2. Continuity: No responsibility will be accepted for the consequences of failure or restriction in supply.

430 Water

- 1. Supply: The existing mains may be used for the Works as follows:
 - 1.1. Metering: Free of charge
 - 1.2. Source: Property supply
- 2. Continuity: No responsibility will be accepted for the consequences of failure or restriction in supply.

570 Personal protective equipment

- 1. General: Provide for the sole use of other members of the project team, in sizes to be specified:
 - 1.1. Safety helmets to BS EN 397, neither damaged nor time expired. Number required: 3
 - 1.2. High-visibility waistcoats to BS EN ISO 20471 Class 1. Number required: 3.
 - 1.3. Safety boots with steel insole and toecap to BS EN ISO 20345. Pairs required: 3
 - 1.4. Disposable respirators to BS EN 149.FFP1S.
 - 1.5. Eye protection to BS EN ISO 16321-1 and BS EN ISO 16321-3.
 - 1.6. Ear protection - muffs to BS EN 352-1, plugs to BS EN 352-2
 - 1.7. Hand protection - to BS EN 388, 407, 420 or 511, as appropriate.

Ω End of Section

A37

Operation/ maintenance of the finished works

Generally

110 The building manual

1. **Purpose:** The manual is to be a comprehensive information source and guide for owners and users of the completed works. It should provide an overview of the main design principles and describe key components and systems to enable proper understanding, efficient and safe operation and maintenance.
2. **Scope**
 - 2.1. **Part 1: General:** content as clause 120.
 - 2.2. **Part 2: Fabric:** content as clause 130.
 - 2.3. **Part 3: Services:** content as clause 140.
 - 2.4. **Part 4: The Health and Safety File:** content as clause 150.
 - 2.5. **Part 5: Building User Guide:** content as clause 151.
3. **Responsibility:** The building manual is to be produced by the Contractor and must be complete no later than one week before Practical Completion.
4. **Compilation**
 - 4.1. Prepare all information for contractor designed or performance specified work including as-built drawings.
 - 4.2. Obtain or prepare all other information to be included in the manual.
5. **Reviewing the manual:** Submit a complete draft. Amend in the light of any comments and resubmit. Do not proceed with production of the final copies until authorized.
6. **Final copies of the manual**
 - 6.1. **Number of copies:** two
 - 6.2. **Format:** two hard copies and an electronic version
 - 6.3. **Latest date for submission:** one week before the date for completion stated in the contract.
7. **As-built drawings and schedules**
 - 7.1. **Format:** electronic

115 The Health and Safety File

1. **Responsibility:** the Contractor
2. **Content:** Obtain and provide the following information:
3. **Format:** two hard copies and an electronic version
4. **Delivery to:** Employer By (date): one week before Practical completion.

120 Content of the building manual part 1: General

1. **Content:** Obtain and Provide the following, including all relevant details not included in other parts of the manual:
2. **Index:** list the constituent parts of the manual, together with their location in the document.
3. **The Works**
 - 3.1. Description of the buildings and facilities.
 - 3.2. Ownership and tenancy, where relevant
 - 3.3. Health and Safety information – other than that specifically required by the Construction (Design and Management) Regulations.
4. **The Contract**

- 4.1. Names and addresses and contact details of all significant consultants, contractors, subcontractors, suppliers and manufacturers.
- 4.2. Overall design criteria.
- 4.3. Environmental performance requirements
- 4.4. Relevant authorities, consents and approvals.
- 4.5. Third party certification, such as those made by “competent” persons in accordance with the Building Regulations
5. **Operational requirements and constraints of a general nature**
 - 5.1. Maintenance contracts and contractors.
 - 5.2. Fire safety strategy for the buildings and the site. Include drawings showing emergency escape and fire appliance routes, fire resisting doors location of emergency alarm and fire fighting systems, services, shut off valves switches, etc.
 - 5.3. Emergency procedures and contact details in case of emergency.
6. Description and location of other key documents.

130 Content of the building manual part 2: Building fabric

1. **Content:** Obtain and Provide the following, including all relevant details not included in other parts of the manual:
2. **Detailed design criteria, including**
 - 2.1. Floor and roof loadings.
 - 2.2. Durability of individual components and elements.
 - 2.3. Loading restrictions.
 - 2.4. Insulation values.
 - 2.5. Fire ratings.
 - 2.6. Other relevant performance requirements.
3. **Construction of the building**
 - 3.1. A detailed description of methods and materials used.
 - 3.2. As-built drawings recording the construction, together with an index.
 - 3.3. Information and guidance concerning repair, renovation or demolition/ deconstruction.
4. Periodic building maintenance guide chart.
5. Inspection reports.
6. Manufacturer’s instructions index, including relevant COSHH data sheets and recommendations for cleaning, repair and maintenance of components.
7. Fixtures, fittings and components schedule and index.
8. Guarantees, warranties and maintenance agreements – obtain from manufacturers, suppliers and subcontractors.
9. **Test certificates and reports required in the specification or in accordance with legislation, including**
 - 9.1. Air permeability.
 - 9.2. Resistance to passage of sound.
 - 9.3. Continuity of insulation.
 - 9.4. Electricity and Gas safety.
10. **Timescale for completion:** one week before Practical Completion

140 Content of the building manual part 3: Building services

1. **Content:** Obtain and Provide the following, including all relevant details not included in other parts of the manual:

2. Detailed design criteria and description of the systems, including
 - 2.1. Services capacity, loadings and restrictions
 - 2.2. Services instructions.
 - 2.3. Services log sheets.
 - 2.4. Manufacturers' instruction manuals and leaflets index.
 - 2.5. Fixtures, fittings and component schedule index.
3. Detailed description of methods and materials used.
4. As-built drawings for each system recording the construction, together with an index, including
 - 4.1. Diagrammatic drawings indicating principal items of plant, equipment and fittings
 - 4.2. Record drawings showing overall installation
 - 4.3. Schedules of plant, equipment, valves, etc. describing location, design performance and unique identification cross referenced to the record drawings.
 - 4.4. Identification of services – a legend for colour coded services.
5. Product details, including for each item of plant and equipment
 - 5.1. Name, address and contact details of the manufacturer.
 - 5.2. Catalogue number or reference
 - 5.3. Manufacturer's technical literature, including detailed operating and maintenance instructions.
 - 5.4. Information and guidance concerning dismantling, repair, renovation or decommissioning.
6. Operation: A description of the operation of each system, including:
 - 6.1. Starting up, operation and shutting down
 - 6.2. Control sequences
 - 6.3. Procedures for seasonal changeover
 - 6.4. Procedures for diagnostics, troubleshooting and faultfinding.
7. Guarantees, warranties and maintenance agreements – obtain from manufacturers, suppliers and subcontractors.
8. Commissioning records and test certificates list for each item of plant, equipment, valves, etc. used in the installations – including
 - 8.1. Electrical circuit tests.
 - 8.2. Corrosion tests.
 - 8.3. Type tests.
 - 8.4. Work tests.
 - 8.5. Start and commissioning tests.
9. Equipment settings: Schedules of fixed and variable equipment settings established during commissioning.
10. Preventative maintenance: Recommendations for frequency and procedures to be adopted to ensure efficient operation of the systems
11. Lubrication: Schedules of all lubricated items
12. Consumables: A list of all consumable items and their source.
13. Spares: A list of recommended spares to be kept in stock, being those items subject to wear and tear or deterioration and which may involve an extended delivery time when replacements are required.
14. Emergency procedures for all systems, significant items of plant and equipment.
15. Annual maintenance summary chart.
16. Timescale for completion:

150 Content of the building manual part 4: the Health and Safety File

1. **Content:** obtain and provide the following, including all relevant details not included in other parts of the manual, including:
 - 1.1. residual hazards and how they have been dealt with
 - 1.2. hazardous materials used
 - 1.3. information regarding the removal or dismantling of installed plant and equipment
 - 1.4. health and safety information about equipment provided for cleaning or maintaining the structure;
 - 1.5. the nature, location and markings of significant services,
 - 1.6. information and as-built drawings of the structure, its plant and equipment
2. **Timescale for completion:** one week before Practical completion
3. **Submit to:** the Employer

151 Content of the building manual part 5: the building user guide

1. **Content:** Obtain and provide the following:
 - 1.1. Building services information.
 - 1.2. Emergency information.
 - 1.3. Energy & environmental strategy.
 - 1.4. Water use.
 - 1.5. Transport facilities.
 - 1.6. Materials & waste policy.
 - 1.7. Re-fit/ re-arrangement considerations.
 - 1.8. Reporting provision.
 - 1.9. Training.
 - 1.10. Links & references.
2. **Timescale for completion:** one week before Practical completion

160 Presentation of building manual

1. **Format:** A4 size, plastics covered, loose leaf, four ring binders with hard covers, each indexed, divided and appropriately cover titled.
2. **Selected drawings needed to illustrate or locate items mentioned in the Manual:** Where larger than A4, to be folded and accommodated in the binders so that they may be unfolded without being detached from the rings.
3. **As-built drawings:** The main sets may form annexes to the Manual.

250 Tools

1. **General:** Provide tools and portable indicating instruments for the operation and maintenance of all services plant and equipment (except any installed under Named Subcontracts) together with suitable means of identifying, storing and securing.
2. **Quantity:** Two complete sets.
3. **Time of submission:** At completion.

Ω End of Section

A40

Contractor's general cost items: management and staff

Clauses

110 Management and staff

1. Cost-significant items: refer to Contract Sum Analysis

Ω End of Section

A41

Contractor's general cost items: site accommodation

Clauses

110 Site accommodation

1. Details: Site accommodation required or made/ not made available by the Employer: See section A36.
2. Cost significant items: Refer to Contract Sum Analysis

Ω End of Section

A42

Contractor's general cost items: services and facilities

Clauses

110 Power

1. Cost significant items: Refer to Contract Sum Analysis

120 Lighting

1. Cost significant items: Refer to Contract Sum Analysis

130 Fuels

1. Cost significant items: Refer to Contract Sum Analysis

140 Water

1. Cost significant items: Refer to Contract Sum Analysis

150 Telephone and administration

1. Cost significant items: Refer to Contract Sum Analysis

160 Safety, health and welfare

1. See clause A34/210.
2. Cost significant items: Refer to Contract Sum Analysis

170 Storage of materials

1. Cost significant items: Refer to Contract Sum Analysis

180 Rubbish disposal

1. See clause A34/430.
2. Cost significant items: Refer to Contract Sum Analysis

190 Cleaning

1. See clause A33/710.
2. Cost significant items: Refer to Contract Sum Analysis

220 Security

1. See clause A34/150.
2. Cost significant items: Refer to Contract Sum Analysis

240 Small plant and tools

1. Cost significant items: Refer to Contract Sum Analysis

310 Additional services and facilities items

1. Heading: TO BE COMPLETED BY CONTRACTOR
2. Cost significant items:

Ω End of Section

A43

Contractor's general cost items: mechanical plant

Clauses - No Amendments

Ω End of Section

A44

Contractor's general cost items: temporary works

Clauses

130 Access scaffolding

1. Cost significant items: Refer to Contract Sum Analysis

150 Hoardings, fans, fencing, etc.

1. Cost significant items:

Ω End of Section

A50

Work/ products by/ on behalf of the employer

Clauses - No Amendments

Ω End of Section

A53

Work by statutory authorities/ undertakers

Clauses - No Amendments

Ω End of Section

A54

Provisional work/ items

Clauses - No Amendments

Ω End of Section

A55

Dayworks

Clauses

110 Labour

1. Provisional sum: Include prime cost of labour incurred before the Final Completion Date: £45 per hour.
 - 1.1. Percentage adjustment: Add to cover incidental costs, overheads and profit: TO BE COMPLETED BY CONTRACTOR%.

120 Products

1. Provisional sum: Include prime cost incurred at any time during the Contract net cost + 30%.

130 Equipment

1. Provisional sum: Include prime cost of plant (equipment) incurred before the Final Completion Date: net cost + 30%.

Ω End of Section

A56

Advance procurement

Clauses - No Amendments

Ω End of Section



Specification created using NBS Chorus

Employer's Requirements
The Spectrum Building

SECTION 2

SCOPE OF WORKS

Item	Description of Work	Quantity	Unit	Rate	Total (£)
3.2	SCAFFOLDING				
	The Principal Contractor is to design a suitable scaffold to access to safely undertake the works.				
3.2.1	Supply and erect all necessary scaffolding to front/rear/flank elevations in order to facilitate the works, as well as any areas as necessary in order to safely access the works. Following completion of the works, the Principal Contractor is to allow for the striking of the scaffold. The Principal Contractor is to allow to employ a competent person to design the scaffold, including its erection and striking. Scaffolding to fully comply with HSE regulations.				
3.2.2	The scaffold is to be designed in such a way that continued access is maintained to the reception and ground floor retail units.				
3.2.3	The Employers Requirement is all design, procurement, supply and site works for external cladding replacement to the Spectrum Building, including but not limited to the following: - Removal and disposal of existing cladding system				
3.2.5	All scaffolding is to be installed neatly to provide a tidy and unobtrusive scaffold structure.				
3.2.4	- Installation of new cladding system suitable for the local environment with a warranty of no less than 10 years - Scaffolding, vertical access, site accommodation and other logistics - Any other works necessary to achieve an External Wall System Fire Review Certificate (EWS1) with a rating of B1 or better, together with Building Regulations Approval - Provision of documentation as required by the Building Safety Fund Grant Funding Agreement during and at the completion of works				
3.2.6	Any signage attached to the building is to be adequately protected from damage caused by the scaffold and from damage caused during normal working practices, throughout the course of the works.				
3.2.7	All scaffolding requirements are to be assessed by a suitably qualified specialist to ensure the feasibility and safety of any scaffolding. Suitability and safety are to be re-assessed when any additional erection of scaffolding occurs.				
3.2.8	All scaffold is to include fixed toe boards, handrails, new netting pulled taught and secured with cable ties and polythene sheeting below the timber boards at first lift to prevent debris falling onto the pavement/roadway below.				
3.2.10	Ensure the bottom lift is double boarded with sheeting inserted between and that the scaffold poles are fitted with high visibility tape to the 1st lift, the scaffold must be designed to maintain pedestrian access to the pavement area below during the course of the works.				
3.2.11	All scaffolding proposals (with supporting scaffolding design/drawing) to be approved by the CA before proceeding.				
3.2.12	Allow adequate provisions to transfer materials from ground level. Provide proposal with justification concerning safety to the occupants, public and the contractor's operatives.				
3.2.13	No scaffold or works materials are to be transferred through the demise at any point during the works.				
3.2.14	No scaffolding should be supported from any existing balconies or flat roof coverings. Contractor is to allow for all necessary additional supports and back propping to avoid loadings on flat roofs and balconies.				
3.2.15	Contractors should allow for plywood protection to existing roof coverings to limit damage as reasonably possible.				
3.2.16	Allow for obtaining all necessary licences required to undertake the works, including scaffolding licences from the local authority. All works are to adhere to the relevant Local Council's Code of Practice.				
3.2.17	Scaffolding to conform to all CDM regulations, including but not limited to providing necessary lighting and signage.				
3.2.18	Ensure that scaffolding is erected in such a way as to maintain the area in a safe condition for use by pedestrians and vehicles, such as installation of scaffold fans above entrances etc.				
3.2.19	Allow for the provision of a scaffolding alarm to the first floor scaffolding on all elevations. Allow for all maintenance costs in this regard.				
3.2.20	In addition to the alarm system, the contractor is to fully enclose the scaffolding at ground floor level with hoarding or Heras fencing (to be returned on all sides). Where Heras fencing cannot be provided to return sides, the contractor is to allow for supply and installing a motion detector to cover the side entry point. The motion detector is to be linked back to the scaffold alarm.				
3.2.21	The alarm system and hoarding or Heras fencing is to be provided the same day the first lift of scaffolding is erected. This clause is to be strictly adhered to. Controls for the alarm are to be housed in an external control box and NOT to be located internally.				
3.2.22	No ladders shall be left standing providing access onto scaffolding. i.e. ladders should be "pulled-up" following access by the contractor's workmen.				
3.2.23	At the end of each working day (or when scaffolding is unattended), any loose ladders are to be suitably chained to prevent use by others.				
3.2.24	Scaffolding shall be enclosed by netting or other approved material with appropriate fire rating but allowing light through to residents windows.				
3.2.25	Scaffolding shall be removed as soon as possible after completion and inspections of cladding works to each section of each elevation				
	Total cost for scaffolding				
	SECTION 2 SUB TOTAL				£

Employer's Requirements
The Spectrum Building

APPENDIX A

**Brief for Delivery of PCSA (Pre Construction Services Agreement)
dated 02 August 2022**

Date 02 August 2022

Ref: 20644 pcsa brief

Brief for Delivery of PCSA (Pre-Construction Services Agreement) role for: Cladding Remediation Works at the Spectrum Building, 22 Freshwater Road, RM8 1EH



Introduction

An EWS1 and Façade Survey Assessment Report was carried out on the above building in December 2020. This indicated that there are some high and medium risk issues that need to be remediated. HartDixon have been appointed as project managers to lead the remediation process.

The building in question is known as the Spectrum Building, 22 Freshwater Road, RM8 1EH as pictured above. The building was originally an office block and was converted to residential, including a two storey extension to create floors 5 and 6, around 2013. It is understood that the building freehold was purchased by the present owner in 2019. The report identifies four areas of concern and recommends remediation in the medium term:

- The high pressure laminate on timber frame cladding system that has been used for the extension of the building to create floors 5 and 6.
- The “spandrel” window infill panels to floors G-4
- High pressure laminate privacy screens between balconies
- Timber decking to balconies

The report provides some caveated options to the replacement of the cladding to floors 5 and 6, but these do not appear to be feasible so this strategy assumes that they will need to be replaced.

It has been determined that the above project will benefit from the appointment of a suitable Specialist Contracting Company to deliver the requirements listed below within a PCSA. The PCSA provider shall employ all required professionals and designers to provide the deliverables listed below with the exception of the following who will be engaged directly by the Client:

- Project manager, CDM Principle Designer and Employers Agent (HartDixon)
- Independent Quantity Surveyor to provide value for money (VfM) report required for the BSF application if



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the costs are negotiated, together with ongoing cost control.

- Fire Engineer to check proposals and issue EWS 1 determination on completion.
- Building Control Approved Inspector.

The contractor appointed to provide PCSA services is not guaranteed the contract to carry out the remedial cladding works, and all information delivered in relation to the PCSA shall become the property of the Client.

Specific PCSA Deliverables

- Review of EWS1 and Façade Survey Assessment Report dated December 2020 and any as built information available
- Selection of replacement materials from those available that meet the requirements of the building regulations and MHCLG advice note on cladding.
- Further intrusive site investigations required to confirm existing fabric and design details
- Consideration of thermal properties of the alternative materials and if additional measures are required to maintain the overall insulation value.
- Evidence to support appeal for funding of items that are currently non-eligible.
- Effect on appearance of the building resulting from the replacement materials and consideration of the need for planning consent. Note that it is a requirement of the BSF that consent is obtained or confirmation from the planning authority that an application is not required.
- Design for the cladding remediation to RIBA stage 3
- Design required for the incorporation of replacement materials into the overall fabric such as junctions and service penetrations.
- Confirmation that the new design system is compliant with the requirements of the Building Regulations and MHCLG advice note so that a EWS 1 Determination of A can be issued on completion of the work.
- Means of access to the areas requiring remediation and temporary protection to the building while works are carried out.
- Detailed cost breakdown for review by the Quantity Surveyor, together with costs in format required for the Building Safety Fund Stage 2 application.
- Detailed programme for remedial works, including any remaining design, other pre-construction activities and procurement periods

Other PCSA Requirements

- Review in conjunction with the Professional Team the objectives and requirements of the Employer and develop them in a manner approved by the Employer.
- Use best efforts to achieve economies in time, cost and design and suggest any design changes which could be made to reduce the incidence of conflict or duplication between trades.
- Identify areas of potential cost savings and recommend appropriate action by the Professional Team. Participate in value engineering costing studies with the Professional Team and/or Specialist Contractors.
- Provide buildability advice. Review and advise on the practical implications of the proposed drawings and specifications and formulate and agree construction methods with the Professional Team and any Specialist Contractors and advise on safety requirements and good industry practice.
- Advise the Employer's Agent, Architect and Cost Consultant on procurement and programme by reference to the Programme, including preparing and agreeing with the Employer's Agent, Architect and Cost Consultant a procurement and construction programme.
- Investigate and advise upon programming and construction methodology and sequencing to improve or shorten the Programme and to ensure the earliest or most efficient schedule of handover.
- Provide early warning of any likely overspend as against the relevant estimate in its Cost Plan and, in conjunction with the Professional Team, identify how costs can be brought within budget.
- At all times liaise and co-operate with the Cost Consultant and provide the Cost Consultant with such financial and other information relating to the Project as it may request from time to time.



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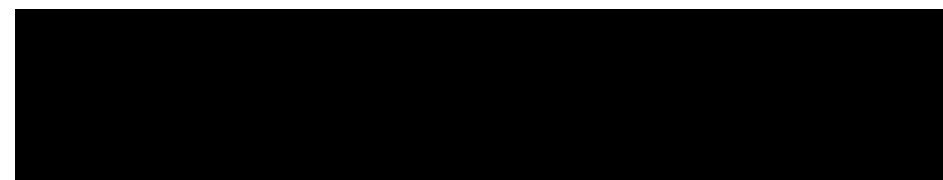
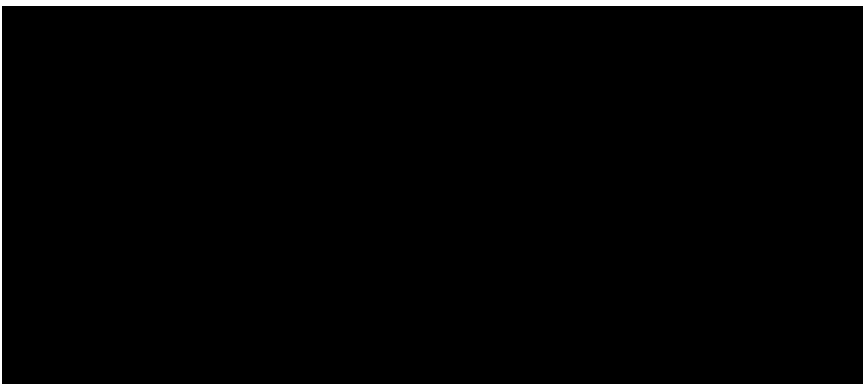
- Plan and prepare a detailed methodology for construction works, especially with regard to sequencing, temporary support, existing services relocation or protections, existing means of escape, protection, maintaining the structural integrity of the existing structures or facilities which adjoin, abut or run through the site and the safety of users and occupiers of the surrounding properties, structures or facilities.
- Prepare a detailed methodology which addresses the measures that the Contractor proposes to undertake to ensure both protection and security of the site and any continuing access for vehicles around and to the site.
- Monitor and advise on materials, component and labour plans of the proposed works.
- Monitor and advise on the availability and price of materials, method of working, labour plans, building systems, feasibility of construction and manufacture of components and installation of construction.
- Prepare material, labour and component flow schedules and identify those which require advance ordering and processing, including a time based procurement schedule and a related trade personnel or operative resources histogram; identify all pre-fabrication items.
- Notify the Employer and the Cost Consultant if any proposed subcontractor or supplier is affiliated directly or indirectly to the Contractor (or its parent or other group companies).
- Liaise with the Principal Designer regarding production of the health and safety file and provide to the Principal Designer all information requested for inclusion in the health and safety file.
- Assist in developing and updating the Construction Phase plan according to the CDM Regulations in conjunction with the Principal Designer and the professional Team.
- Recommend, in conjunction with the Professional Team, appropriate site investigation works to be carried out and monitor their execution and report to the Employer thereon.
- Assist the Employer and the Professional Team in liaising with public authorities, public and fire officers and the like, by providing information to and assisting the professional Team in making and negotiating all applications, approvals, waivers or agreements necessary for the Project.
- Procure measurements of the building to facilitate the works under the Main Contract.
- Work in conjunction with the Approved Building Inspector to develop and implement a strategy to satisfy and discharge Building Regulations.
- Provide expenditure justification alongside Fee submissions relating to any third party design fees.
- Provide the Employer with a schedule of pre-construction Surveys & Due Diligence activities required on site in line with the Pre-Construction programme.

Appended Information

EWS1 and Façade Survey Assessment Report dated December 2020

Draft programme

Prepared on behalf of HartDixon



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Employer's Requirements
The Spectrum Building

APPENDIX B

PCSA 2016 PRE-CONSTRUCTION SERVICES AGREEMENT
executed



This document has changed from the published version. A comparison document must be provided.

PCSA 2016
Pre-Construction Services Agreement
(General Contractor) 2016

2016
PRE-CONSTRUCTION SERVICES AGREEMENT

Pre-Construction Services Agreement (General Contractor) (PCSA)

Appropriate:

- for the supply of pre-construction services by a Contractor selected under a two-stage tendering procedure; and
- where the main contract is to be the JCT Standard Building Contract, Design and Build Contract, Major Project Construction Contract, Intermediate Building Contract or Intermediate Building Contract with contractor's design, 2016 Edition.

Can be used:

- whether or not the Contractor is to be responsible for any design work;
- where there is to be novation to the Contractor of any specialist sub-contract(s) or supply contract(s) or (in the case of a Design and Build Contract or Major Project Construction Contract) any consultancy agreement(s);
- by both private and local authority employers; and
- (with minor adaptation) in a JCT Construction Management procurement, for the provision of pre-construction services by prospective Trade Contractors.

Not suitable for use:

- between the Employer and specialist sub-contractors (except as prospective Trade Contractors in a JCT Construction Management procurement – but see also paragraph 7 of the Guidance Notes);
- between a Contractor and a sub-contractor; or
- in conjunction with the JCT Management Building Contract.

This contract document is created using JCT's online service. Changes or choices made by the contract creator mean that this document differs from the original JCT text. A comparison document, showing all the changes from the original JCT text, is available and must be provided with the contract by the contract creator to all parties to the contract under the terms and conditions of the use of this service. Please note that the finalised version of a contract document that has been output from this service includes the comparison document automatically. Reports of failure to observe the terms and conditions of the use of this service may result in this service being suspended.

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For details of 2016 Edition changes, see the Guidance Notes and the Tracked Change Document.

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Pre-Construction Services Agreement

This Agreement

is made the 3 February 2023

Between

The Employer

Arinium Limited

Place of incorporation: England and Wales

(Company No. 11784090)^[1]

whose registered office is at 310 Harrow Road, Wembley, United Kingdom, HA9 6LL

And

The Contractor

Fleetwood Architectural Aluminium Limited

Place of incorporation: England and Wales

(Company No. 03321897)^[1]

whose registered office is at Fleetwood House, 480 Bath Road, Slough, Berkshire, SL1 6BB

[1] Where the Employer or Contractor is neither a company incorporated under the Companies Acts nor a company registered under the laws of another country, delete the references to Company number and registered office. In the case of a company incorporated outside England and Wales, particulars of its place of incorporation should be inserted immediately before its Company number. As to execution by foreign companies and matters of jurisdiction, see the Guidance Notes.

Recitals

Whereas

First

the Employer wishes to have the following work carried out:

Replacement of combustible cladding deemed non-compliant by the Client's Fire Engineer
at

Spectrum Building, 22 Freshwater Road, Dagenham RM8 1EH ('the Project'),
as described in greater detail in the document(s) identified in the Particulars, that work to be carried
out under a main contract ('the Main Contract') provisional details of which are also given or referred
to in the Particulars;

Second

the Employer's Agent for the pre-construction phase of the Project ('the Pre-Construction Period') is

HartDixon LLP

of

14 Devonshire Square, London EC2M 4YP
or such other person as the Employer shall nominate and notify to the Contractor;

Third

The Principal Designer for the purposes of the CDM Regulations is^[2]

HartDixon LLP

of

14 Devonshire Square, London EC2M 4YP
or such replacement as the Employer at any time appoints to fulfil that role.

Fourth

The Principal Contractor the Employer intends to appoint for the purposes of the CDM Regulations is
the Contractor or such replacement as the Employer at any time appoints to fulfil that role.

Fifth

prior to the execution of this Agreement, the Contractor has submitted to the Employer the initial

[2] Insert the name of the Principal Designer in the Third Recital and that of the Principal Contractor in the Fourth Recital (if that is to be a person other than the Contractor) if appointed or, where appropriate, amend to state whom the Employer intends to appoint. Under the CDM Regulations 2015, regardless of whether or not a project is notifiable, there is a requirement to appoint a principal designer and a principal contractor in all cases where there is more than one contractor, or if it is reasonably foreseeable that more than one contractor will be working on a project at any time. The appointments must be made as soon as is practicable, and, in any event, before the construction phase begins. For these purposes, the term 'contractor' is broadly defined by the regulations and treats the Contractor's sub-contractors as separate contractors.

proposal document(s) identified in the Particulars^[3], on the basis of which the Employer has requested that, for the fee specified in Annex A ('the Fee') and other payments in accordance with this Agreement, the Contractor should during the Pre-Construction Period provide the pre-construction services listed in Annex B;

Sixth

it is intended that work on the Construction Phase of the Project shall commence on site on TBA ('the Date of Possession') with a duration initially estimated at TBA weeks and that for the purposes of the Main Contract, not later than 4 weeks prior to the Date of Possession:

- the Contractor should submit his Second Stage Tender and, where applicable, Contractor's Proposals, and
- the Contract Sum should be agreed between the Parties

in conformity with the requirements (the 'Second Stage Tender Requirements') identified in the Particulars;

[3] Delete as appropriate.

Now it is hereby agreed as follows

Section 1 Definitions and Interpretation

1.1 Definitions

In addition to the capitalised terms defined above, the following expressions shall unless the context otherwise requires have the meanings stated or referred to below:

Additional Payments: see clause 6.1.3.

Additional Services: see clause 5.1.

BIM Protocol: (where applicable) the document identified as such in the **Particulars** (against the reference to clause 1.1).

CDM Regulations: the Construction (Design and Management) Regulations 2015.

Contractor's Information: Information supplied or to be supplied by the Contractor under this Agreement whether under the BIM Protocol or otherwise.

Contractor's Key Personnel: the persons identified as such in the **Particulars** (against the reference to clause 2.1.2) or any replacements appointed in accordance with clause 4.2.2.

Contractor's Project Staff: the Contractor's Representative, the Contractor's Key Personnel and his other staff engaged on the Project, as identified in paragraph 3 of Annex A.

Contractor's Representative: the person identified as such in the **Particulars** (against the reference to clause 2.1.2) or any replacement appointed in accordance with clause 4.2.2.

Cost Plan: the plan identified as such in the **Particulars** (against the reference to clause 2.1), as amended/revised from time to time.

Employer's Requirements: the document identified as such in the **Particulars** (against the reference to clause 2.1).

Information: all information, including designs, drawings, specifications, programmes, schedules and other material supplied or to be supplied by or on behalf of any member of the Project Team for the purposes of the Project, whether in hard copy form or stored in any electronic or other medium.

Interest Rate: a rate 5% per annum above the official bank rate of the Bank of England current at the date that a payment due under this Agreement becomes overdue.

Joint Fire Code: the Joint Code of Practice on the Protection from Fire of Construction Sites and Buildings Undergoing Renovation, published by Construction Industry Publications Ltd and the Fire Protection Association, as amended/revised from time to time.

Local or Public Authority: a body that is a 'contracting authority' as defined by the PC Regulations.

Party: the Employer or the Contractor.

PC Regulations: the Public Contracts Regulations 2015.

Pre-Construction Services: the services listed in Annex B and any Additional Services instructed under clause 5.1.

Programme: the document identified as such in the **Particulars** (against the reference to clause 2.1), as amended/revised from time to time.

Project Team: the Contractor and the other persons listed in the **Particulars** (against the reference to clause 2.1), together with any other members from time to time nominated by the Employer.

Reimbursable Expenses: see Annex A.

Scheme: Part 1 of the Schedule to The Scheme for Construction Contracts (England and Wales) Regulations 1998.

Statutory Requirements: any statute, statutory instrument, regulation, rule or order made under any statute or directive having the force of law which affects the Project or performance of any obligations under this Agreement and any regulation or bye-law of any local authority or statutory undertaker which has any jurisdiction with regard to the Project or with whose systems the Project is to be connected.

Third Party Agreements: any agreement or licence between the Employer and any person other than members of the Project Team that relates to the Project, the Project site or the use of it and of which the relevant details have been given to the Contractor (including, without limitation, agreements with actual or prospective purchasers, tenants and funders and those relating to planning, highways, rights of way, light, oversailing or other easements) as listed in or by the **Particulars** (by reference to **clause 2.1**).

VAT: Value Added Tax.

1.2 Headings, references to persons, legislation etc.

1.2.1 Nothing in the documents identified in the **Particulars** shall override or modify the other provisions of this Agreement.

1.2.2 In this Agreement, unless the context otherwise requires:

1.2.2.1 the headings, notes and footnotes are included for convenience only and shall not affect the interpretation of this Agreement;

1.2.2.2 the singular includes the plural and vice versa;

1.2.2.3 a gender includes any other gender;

1.2.2.4 a reference to a 'person' includes any individual, firm, partnership, company and any other body corporate;

1.2.2.5 a reference to a statute, statutory instrument or other subordinate legislation ('legislation') is to such legislation as amended and in force from time to time, including any legislation which re-enacts or consolidates it, with or without modification, and including corresponding legislation in any other relevant part of the United Kingdom; and

1.2.2.6 references to documents shall, where there is a BIM Protocol or other protocol relating to the supply of documents or information under this Agreement, be deemed to include information in a form or medium conforming to that protocol.

1.3 Contracts (Rights of Third Parties) Act 1999

Nothing in this Agreement confers or is intended to confer any right to enforce any of its terms on any person who is not a party to it.

1.4 Notices and other communications

1.4.1 Any notice or instruction under this Agreement shall be in writing.

1.4.2 Any notice required to be given in accordance with this clause 1.4.2 shall be delivered by hand or sent by Recorded Signed for or Special Delivery post, in which case it shall be deemed to be given on delivery.

1.4.3 Any other communications may be sent by such other means as the Parties shall agree from time to time.

1.5 Applicable law

This Agreement shall be governed by and construed in accordance with the law of England.^[4]

[4] Where the Parties do not wish the law applicable to this Agreement to be the law of England appropriate amendments should be made.

Section 2 Contractor's General Obligations

2.1 Performing the Services

The Contractor shall perform the Pre-Construction Services in accordance with the Employer's Requirements, the Statutory Requirements and the Programme and with due regard to the Cost Plan and any Third Party Agreements. In performing those services the Contractor shall:

- 2.1.1 exercise the level of skill, care and diligence reasonably to be expected of a contractor experienced in projects of similar size, scope and complexity;
- 2.1.2 ensure that, unless otherwise agreed with the Employer, Contractor's Key Personnel shall fulfil their identified roles and that they and the Contractor's Representative (or competent deputies) are at all reasonable times available for communication and consultation with the Employer and Project Team; and
- 2.1.3 duly consult with members of his supply chain and, at the Employer's request, endeavour so far as practicable to ensure the attendance at relevant Project meetings of those suppliers whose attendance is necessary or desirable.

2.2 Compliance with instructions

The Contractor shall comply with all lawful instructions from the Employer or Employer's Agent as to all matters within the scope of the Pre-Construction Services and the Contractor's competence. For these purposes:

- 2.2.1 instructions given to the Contractor's Representative shall be deemed to have been issued to the Contractor;
- 2.2.2 if the Contractor considers that, irrespective of any additional time or financial adjustment under section 5, an instruction would compromise or materially and adversely affect the Project, performance of the Pre-Construction Services or compliance with the Statutory Requirements, he shall notify the Employer in writing and the Parties shall promptly meet with a view to immediate resolution of the matter, consulting as necessary with other relevant members of the Project Team.

2.3 Co-operation and supply of Information

The Contractor shall liaise and co-operate fully with other members of the Project Team, both directly and through Project Team meetings, and in accordance both with any identified framework agreements and with such procedures as the Employer may establish from time to time. In particular (but without limitation) the Contractor shall:

- 2.3.1 supply in accordance with the Programme all the Contractor's Information required as part of the Pre-Construction Services, together with any other Information reasonably requested by the Employer or Project Team;
- 2.3.2 notify other members of the Project Team in due time of any requirements that the Contractor may have for Information from them that is not provided for in the Programme or other agreed information release schedule;
- 2.3.3 promptly notify the Employer's Agent of any inconsistency or divergence (actual or prospective) of which he becomes aware in relation to the Employer's Requirements or other documents referred to in clause 2.1 and of any delay or impediment in performing the Pre-Construction Services; and
- 2.3.4 promptly notify those to whom the Contractor has supplied Contractor's Information of any changes to it, and of any inaccuracies or inconsistencies in it of which he becomes aware, together with any necessary corrections, and similarly notify those from whom he has received Information if he becomes aware of inaccuracies or inconsistencies in the items received.

2.4 Specification of materials

Unless required by this Agreement or otherwise authorised in writing by the Employer, the Contractor will not select or recommend the use of materials for the Project other than in accordance with the guidelines contained in the edition of 'Good Practice in the Selection of Construction Materials' (British Council for Offices) current at the date of this Agreement.

2.5 Joint Fire Code

Insofar as the Pre-Construction Services concern matters within the Joint Fire Code, the Contractor shall observe its provisions.

2.6 Sub-contracting

The Contractor shall not sub-contract the performance of any of the Pre-Construction Services without the Employer's prior consent. The Contractor shall remain fully responsible for any work sub-contracted.

2.7 Second Stage Tender

2.7.1 The Contractor shall duly prepare and submit his Second Stage Tender in accordance with the Second Stage Tender Requirements and (unless otherwise agreed) within the time specified in the Sixth Recital.

2.7.2 The Employer is under no obligation to accept any Second Stage Tender and, unless the Parties otherwise agree in writing, no binding contract in respect of the Construction Phase of the Project shall come into existence unless and until the Parties execute and deliver the Main Contract.

2.8 Liability for design work^[5]

Where the Pre-Construction Services include design work, the Contractor shall unless otherwise specifically provided in Annex B have no liability of any kind to the Employer under this Agreement for that design work, whether in contract, negligence, breach of duty or otherwise (other than any personal injury or death arising from that work), unless and until the Main Contract is entered into by the Parties, upon entry into which the Contractor's obligations and liability in respect of that design work shall be the same as if it formed part of the design work undertaken by him under the Main Contract and shall be subject to any relevant exclusions or limitations of liability contained in that contract.

[5] See the Guidance Notes.

Section 3 Employer's General Obligations

3.1 Supply of Employer information etc.

The Employer shall in relation to the Pre-Construction Services duly comply with applicable CDM Regulations and provide the Contractor with such information in his possession or control as is relevant to the Pre-Construction Services and compliance with the Statutory Requirements, that information to be supplied in accordance with the Programme or promptly upon the Contractor's reasonable request. In addition the Employer shall promptly notify the Contractor of:

3.1.1 additions to or other changes in the Project Team; and

3.1.2 any necessary updates or corrections to any information supplied under this clause 3.1.

3.2 Decisions, approvals and instructions

Decisions, approvals and instructions reasonably required by the Contractor shall be made or given by the Employer or by the Employer's Agent within a reasonable time of the Contractor's request.

3.3 Project Team – delay or default

If the Contractor is at any time materially delayed or hindered in performing the Pre-Construction Services by any delay or default on the part of any other member of the Project Team and notifies the Employer with relevant particulars, the Employer shall exercise his powers to ensure, as far as is reasonably practicable, that the delay or default is promptly corrected.

Section 4 Representatives and Contractor's Key Personnel

4.1 Employer's Agent

The Employer's Agent shall be the authorised recipient for all notices to and other communications with the Employer under this Agreement and, subject only to any limits on his authority as are from time to time notified in writing to the Contractor, shall otherwise have full power and authority to represent the Employer. If at any time the appointee ceases to hold the post, the Employer shall promptly appoint a replacement and notify the Contractor.

4.2 Contractor's Representative and Contractor's Key Personnel – changes

4.2.1 The Contractor shall not remove the Contractor's Representative or any of the Contractor's Key Personnel from their post or replace such person without the Employer's prior approval of the removal or of the replacement appointee. Where practicable, the Contractor shall arrange an appropriate handover period. The Employer shall not unreasonably withhold or delay his approval.

4.2.2 If the Contractor's Representative or any of the Contractor's Key Personnel ceases for any reason to hold their post, the Contractor shall, subject to such approval, promptly appoint a replacement.

4.3 Removal and replacement of Contractor appointees

After consultation with the Contractor, the Employer may require the removal of the Contractor's Representative, of any of the Contractor's Key Personnel or of any other person engaged in the Pre-Construction Services if, in the Employer's reasonable opinion, their performance or conduct is or has been unsatisfactory.

Section 5 Additional Services, Fee Adjustment etc.

5.1 Additional Services

The Employer may instruct the Contractor to perform services which are additional to or represent an alteration in the Pre-Construction Services as then specified (including advice in relation to any changes to the definitive design) ('Additional Services') to the extent that they are within the scope of the Project and the Contractor's competence. The Contractor shall promptly notify the Employer of any Additional Service that he considers necessary or desirable.

5.2 Changes, delaying events etc.

The Fee and/or other amounts payable under this Agreement shall be adjusted for additional work and for any additional costs that the Contractor incurs as a result of:

- 5.2.1 instructions for any Additional Services that cannot readily be undertaken by the Contractor's Project Staff in the ordinary course and within the Programme timetable; or
- 5.2.2 any event or cause related to the Project that is beyond the Contractor's control and materially alters, delays, prolongs or disrupts the performance of the Pre-Construction Services, including delay in finalisation of the Employer's design or any default on the part of the Employer or any member of the Project Team.

5.3 Notification by the Contractor

If the Contractor wishes to claim an adjustment of the Fee and/or any additional payment or reimbursement in respect of any Additional Services or of any event or cause within clause 5.2 and/or to claim any additional time, he shall promptly notify the Employer to that effect either upon receipt of the instruction (and before implementing it, except in the case of an emergency) or upon the occurrence of the relevant event or cause, as the case may be. Such notification shall include an estimate of any additional time required, cost and/or (where appropriate) loss and/or expense, which, in the case of cost, shall be consistent with any rates set out in Annex A, so far as properly applicable.

5.4 Adjustment of Fee or additional payment and time

Where following notification by the Contractor under clause 5.3 the Employer confirms his instruction for any Additional Services or the Contractor is able to demonstrate loss and/or expense arising from an event or cause within clause 5.2.2, the addition to the Fee or other payment shall be such amount as is agreed between the Parties or, in default of such agreement, fairly valued by or on behalf of the Employer, based in the case of Additional Services on the net additional time spent in performing them and on any relevant rates given in Annex A. Where relevant a fair adjustment of time shall be made.

Section 6 Payment

6.1 Amounts payable

The Employer shall in accordance with Annex A and the following provisions of this section pay the Contractor:

- 6.1.1 the Fee;
- 6.1.2 Reimbursable Expenses;
- 6.1.3 any additional amounts payable pursuant to section 5 that are not included by way of adjustment of the Fee ('Additional Payments'),

together with any VAT properly payable in respect of such sums.

6.2 Contractor's payment applications

The Contractor may make payment applications as at the application dates or stages/milestones specified in Annex A. Each such application shall state the sum the Contractor considers due to him at that date or stage/milestone, including the amount of any Reimbursable Expenses paid or incurred in the period preceding the specified date or stage/milestone and the amount of any Additional Payment, so far as it relates to that period and is then due and payable, and shall set out the basis on which that sum has been calculated. The application shall be accompanied by such documents, vouchers and receipts as are specified in paragraph 6 of Annex A or are otherwise reasonably required by the Employer.

6.3 Due date and final date for payment

- 6.3.1 The due date for payment of any amount payable under section 6 shall be the application date or stage/milestone or, if later, the date of receipt of the Contractor's payment application by the Employer.
- 6.3.2 The final date for payment shall be 14 days from the due date.

6.4 Payment – amount and notices

- 6.4.1 Not later than 5 days after the due date the Employer shall give a payment notice to the Contractor, stating the sum he considers to be due from him calculated in accordance with clause 6.1 and the basis on which that sum has been calculated.
- 6.4.2 Subject to any notice given under clause 6.4.3, the Employer shall no later than the final date for payment pay the Contractor the amount specified in the payment notice under clause 6.4.1 or, if that notice is not given in accordance with that clause, the amount stated as due in the Contractor's payment application.
- 6.4.3 If the Employer intends to pay less than the sum stated as due from him in his payment notice or, where applicable, in the Contractor's payment application, he shall not later than 5 days before the final date for payment give notice to the Contractor of that intention stating the sum that he considers to be due to the Contractor at the date he gives notice under this clause 6.4.3 and the basis on which that sum has been calculated. Where such notice is given, the payment to be made on or before the final date for payment shall not be less than the amount stated as due in the notice.
- 6.4.4 A notice to be given by the Employer under clause 6.4.1 or 6.4.3 may be given on his behalf by the Employer's Agent or by any other person who the Employer notifies the Contractor as being authorised to do so.
- 6.4.5 In relation to the requirements for the giving of notices under this clause 6.4, it is immaterial that the amount then considered to be due may be zero.

6.5 Interest

If the Employer fails to pay a sum, or any part of it, due to the Contractor under this Agreement by its

final date for payment, the Employer shall, in addition to any unpaid amount that should properly have been paid, pay the Contractor simple interest on that amount at the Interest Rate for the period from the final date for payment until payment is made. Any such unpaid amount and any interest under this clause 6.5 shall be recoverable as a debt.

6.6 Contractor's right of suspension

- 6.6.1 If the Employer fails to pay a sum payable to the Contractor in accordance with clause 6.4 (together with any VAT properly chargeable in respect of that payment) by the final date for payment and the failure continues for 7 days after the Contractor has given notice to the Employer of his intention to suspend the performance of the Pre-Construction Services and the grounds for such suspension, the Contractor, without affecting his other rights and remedies, may suspend performance of any or all of those obligations until payment is made in full. Where payment is made in full the Contractor shall notify the Employer of the resumption of those services.
- 6.6.2 Where the Contractor exercises his right of suspension under clause 6.6.1, he shall be entitled to a reasonable amount in respect of costs and expenses reasonably incurred by him as a result of exercising the right.
- 6.6.3 Applications in respect of any such costs and expenses shall be made to the Employer's Agent and the Contractor shall with his application or on request submit such details of them as are reasonably necessary for ascertaining the amount in question.

Section 7 Insurance

7.1 Professional Indemnity and Public Liability insurance

Where stated as required in the Particulars, the Contractor shall during the Pre-Construction Period maintain with reputable insurers that have a place of business in the United Kingdom:

- 7.1.1 Professional Indemnity insurance with limits of indemnity of the types and in amounts not less than those stated in the Particulars; and
- 7.1.2 Public Liability insurance in respect of death and personal injury and injury or damage to property in a sum not less than the amount stated in the Particulars for any one occurrence or series of occurrences arising out of one event,

provided in the case of any renewal of Professional Indemnity insurance that it remains available at commercially reasonable rates.

7.2 Evidence of insurance

When reasonably requested by the Employer, the Contractor shall send to the Employer appropriate documentary evidence that such insurances have been effected and/or are being maintained.

7.3 Non-availability of Professional Indemnity insurance

If Professional Indemnity insurance is required but as at renewal has ceased to be available at commercially reasonable rates, the Contractor shall promptly notify the Employer in order that they may discuss the means of best protecting their respective positions.

Section 8 Use of Contractor's Information, Confidentiality etc.

8.1 Use of the Contractor's Information

- 8.1.1 Unless otherwise agreed in writing in relation to any specific items, all rights including (without limitation) copyright in the Contractor's Information shall remain vested in the Contractor.
- 8.1.2 Subject to all monies due and payable under this Agreement to the Contractor having been paid, the Contractor grants to the Employer an irrevocable royalty-free licence to copy and use the Contractor's Information and to reproduce that information for the execution and completion of the Project and the subsequent maintenance, letting, occupation, management, sale, advertisement, alteration, refurbishment, reinstatement and repair of it.
- 8.1.3 The licence referred to in clause 8.1.2:
- 8.1.3.1 shall enable the Employer to copy and use the Contractor's Information for an extension of the Project, but not to reproduce any designs comprised in that information for any such extension;
 - 8.1.3.2 includes the right to grant sub-licences; and
 - 8.1.3.3 shall continue in force notwithstanding the expiry or termination of the Contractor's employment under this Agreement.
- 8.1.4 The Contractor's liability for the consequences of any use of the Contractor's Information by the Employer or any other person shall be subject to clause 2.8 and he shall not in any event be liable for any use for any purpose other than that for which that information was prepared.

8.2 Confidentiality and publicity

The Contractor shall during the continuance of the Project keep confidential and use or disclose only as necessary for the purposes of the Project any information supplied to him that relates to the Employer or the Project. That obligation shall not apply to any information that is in or comes into the public domain (other than as a result of the Contractor's breach) or prevent any disclosure required by law. The Employer's consent shall be required to any publication relating to the Project, but shall not be unreasonably withheld.

8.3 Transparency

Where the Employer is a Local or Public Authority or other body to whom the provisions of the Freedom of Information Act 2000 ('FOIA') apply, the Parties acknowledge that, except for any information which is exempt from disclosure in accordance with the provisions of FOIA, the content of this Agreement is not confidential. The Employer shall be responsible for determining in his absolute discretion whether any of the content of this Agreement is exempt from disclosure in accordance with the provisions of FOIA. Notwithstanding any other term of this Agreement:

- 8.3.1 the Contractor hereby consents to the Employer publishing any amendments to the standard form JCT contract in their entirety, including changes to the standard form agreed from time to time, but in each case with any information which is exempt from disclosure in accordance with the provisions of FOIA redacted;
- 8.3.2 the Employer shall promptly inform the Contractor of any request for disclosure that he receives in relation to this Agreement.

Section 9 Assignment and Novation

9.1 Restrictions on assignment

Neither the Employer nor the Contractor shall without the written consent of the other assign this Agreement or any rights thereunder.

9.2 Novation

It is nevertheless agreed that:

9.2.1 where the Main Contract is a JCT Design and Build Contract or Major Project Construction Contract 2016 and this clause 9.2 applies in respect of the consultancy agreement or appointment for the Project of any member of the Consultant Team identified by name in the Particulars; or

9.2.2 (in the case of any form of Main Contract) where this clause 9.2 applies in respect of a contract or order placed with any specialist or supplier identified by name in the Particulars, or one with whom it is otherwise agreed in writing by the Parties that a contract or order should be placed in advance of the Main Contract, and where the material terms of the contract or order and its intended novation under this clause 9.2 have been agreed by the Parties,

the Contractor, on or after execution and delivery of the Main Contract, shall promptly on notice from the Employer given in accordance with clause 1.4.2 enter into a novation agreement with such consultant, specialist or supplier substantially in the form (or appropriate form) of Novation Agreement specified in the Particulars or otherwise agreed.^[6]

[6] As to forms of Novation Agreement, see the Guidance Notes.

Section 10 Suspension by the Employer, Termination, Adjudication and the PC Regulations

10.1 Suspension by the Employer

The Employer may at any time on not less than 14 days' notice to the Contractor given in accordance with clause 1.4.2 require him to suspend performance of the whole or any part of the Pre-Construction Services. Following the issue of a notice under this clause 10.1, the Employer shall pay the Contractor in accordance with section 6:

- 10.1.1 any accrued instalments of the Fee and of any Additional Payment then unpaid;
- 10.1.2 a fair proportion of the next instalment in each case, having regard to the services performed (or to be performed to the effective date of suspension) since the last instalment fell due;
- 10.1.3 all Reimbursable Expenses accrued; and
- 10.1.4 any demobilisation costs properly and necessarily incurred by the Contractor in complying with the notice,

together with any VAT properly payable.

10.2 Remobilisation

The Employer may at any time within 6 months (or such other period as is specified in the Particulars) following the notice under clause 10.1 instruct the Contractor to recommence the performance of the suspended services. The Contractor shall comply with any such instruction as soon as reasonably practicable and the Employer shall pay the Contractor any remobilisation costs properly and necessarily incurred by him as a result.

10.3 Notification of costs

The Contractor shall:

- 10.3.1 promptly notify the Employer of the amount of any demobilisation and remobilisation costs which he intends to claim;
- 10.3.2 provide the Employer with such supporting documents as he may reasonably require to verify the amount claimed; and
- 10.3.3 use all reasonable endeavours to minimise those costs.

10.4 Extended suspension – termination by the Contractor

In the case of a suspension by the Employer of all or a substantial proportion of the Pre-Construction Services for any reason, where the Employer has not within the period referred to in clause 10.2 instructed the Contractor to recommence the performance of all or substantially all those services that remain to be performed, the Contractor, after giving to the Employer not less than 14 days' prior notice of his intention to do so, may give notice to the Employer terminating the Contractor's employment under this Agreement. Each notice under this clause 10.4 shall be given in accordance with clause 1.4.2 and, if notice of termination is given, clause 10.6 shall apply.

10.5 Termination at will or for default/insolvency or under regulation 73(1) of the PC Regulations

- 10.5.1 The Employer may at any time give the Contractor not less than 14 days' notice terminating his employment.
- 10.5.2 If either Party is insolvent, the other may give notice to that Party terminating the Contractor's employment with immediate effect.
- 10.5.3 If either Party ('the defaulting Party') commits a material breach of his obligations, the other Party may give notice to the defaulting Party specifying the breach and requiring its remedy. If the defaulting Party fails to comply with the notice within 7 days, the other Party

may give notice to the defaulting Party terminating the Contractor's employment with immediate effect.

10.5.4 Where this Agreement is one to which regulation 73(1) of the PC Regulations applies and the circumstances set out in regulation 73(1)(a), 73(1)(b) or 73(1)(c) of those regulations apply, the Employer shall be entitled by notice to the Contractor to terminate the Contractor's employment.

10.5.5 Each notice referred to in this clause 10.5 shall be given in accordance with clause 1.4.2.

10.6 Consequences of termination

10.6.1 Following the issue of a notice of termination under clause 10.4 or 10.5:

10.6.1.1 the Parties shall consult and take all reasonable steps to bring the Pre-Construction Services to an orderly close; and

10.6.1.2 the Contractor shall within 14 days deliver to the Employer copies of the Contractor's Information (including any material prepared prior to the date of termination and not previously delivered to the Employer), provided that in the case of termination under clause 10.4 or by the Employer under clause 10.5.4 (regulation 73(1)(a) or 73(1)(c)) or where the Contractor terminates under clause 10.5, the Contractor shall be obliged to do so only against the Employer's payment of any amount due under clause 10.6.2.

10.6.2 The amount due on termination from the Employer to the Contractor or (if a negative amount) from the Contractor to the Employer shall be the aggregate of:

10.6.2.1 an appropriate proportion of the Fee, determined in accordance with Annex A, and of any Additional Payments;

10.6.2.2 any Reimbursable Expenses; and

10.6.2.3 (where the termination is not due to the Contractor's insolvency or material breach or under clause 10.5.4 (regulation 73(1)(b))) any demobilisation and other costs reasonably and properly incurred by the Contractor as a result of the termination,

less amounts previously paid to the Contractor and less (where the termination is due to the Contractor's insolvency or material breach or under clause 10.5.4 (regulation 73(1)(b))) any additional costs reasonably and properly incurred by the Employer in procuring the completion of the Pre-Construction Services by others, but together in each case with any VAT properly payable.

10.6.3 The final date for payment of the amount properly due on termination shall be 28 days from the date of submission of the Contractor's invoice or (where an amount is due to the Employer) the Employer's statement.

10.6.4 Except as set out in clause 10.6.2, neither Party shall be liable to the other for any loss of profit, loss of contracts, or any other losses, costs or expenses that arise out of the termination.

10.6.5 Termination of the Contractor's employment shall not affect the accrued rights or remedies of either Party.

10.7 Adjudication

If a dispute or difference arises under this Agreement which either Party wishes to refer to adjudication, the Scheme shall apply except that for the purposes of the Scheme the Adjudicator shall be the person (if any) and the nominating body shall be that stated in the Particulars.

10.8 The Public Contracts Regulations 2015

Where the Employer is a Local or Public Authority and this Agreement is subject to the PC Regulations^[7]:

[7] An explanatory summary of those provisions in the PC Regulations that are reflected in this Agreement is contained in the Guidance Notes.

- 10.8.1 where regulation 113 of the PC Regulations applies to this Agreement, the Contractor shall include in any sub-contract entered into by him suitable provisions to impose the requirements of regulation 113(2)(c)(i) and (ii);
- 10.8.2 the Contractor shall include in any sub-contract entered into by him provisions requiring the sub-contractor:
 - 10.8.2.1 to supply and notify to the Contractor the information required (as applicable) under regulations 71(3), 71(4) and 71(5) of the PC Regulations; and
 - 10.8.2.2 to include in any sub-subcontract he in turn enters into provisions to the same effect as required under clause 10.8.2.1;
- 10.8.3
 - 10.8.3.1 the Contractor shall include in any sub-contract entered into by him provisions that shall entitle him to terminate the sub-contractor's employment where there are grounds for excluding the sub-contractor under regulation 57;
 - 10.8.3.2 in the event the Employer requires the Contractor to terminate a sub-contractor's employment pursuant to regulation 71(9) the Contractor shall take the appropriate steps to terminate that employment and where required by the Employer under regulation 71(9) shall, or in circumstances where there is no such requirement may, appoint a replacement sub-contractor.

The Particulars

Note: An asterisk * indicates where selection has been or should have been made.

Documents and Listings

The following terms used in the Agreement refer to (or are defined by) the following documents and listings (as altered and updated from time to time in accordance with this Agreement). *(Where the relevant document(s) or listing(s) form an Annex to this Agreement insert a reference to that Annex; in other cases, give the document title, reference number and date or other identifier (or, where convenient and practicable, insert details here).)*

First Recital

Project
(detailed description)

Recommendations listed in the Facade Survey Assessment Report
(Incl. EWS1 Determination) prepared by Ark Sustainability dated 21/12/2020

Main Contract
(type, conditions, amendments and other details of the proposed contract)

JCT 2016 Design and Build Contract with amendments and collateral warranty to suit the requirements of the Building Safety Fund as administered by the Greater London Authority

Fifth Recital

Contractor's initial proposals

PCSA offer prepared by Fleetwood Aluminium dated 19/01/2022

Sixth Recital

Second Stage Tender Requirements
(Identify the Instructions to Tenderers and/or other relevant document(s).)

Contractor to set out design proposals, programme and costs of all works and associated tasks to achieve an A1, A2 or B1 EWS certificate

1.1

BIM Protocol
(Not applicable unless it is stated to apply, with the title, edition, date or other identifiers of the relevant documents stated, and the identified protocol is included in the Employer's Requirements.)

* does not apply

2.1

Cost Plan

To be provided as part of the PCSA

Employer's Requirements

Programme	To be provided as part of the PCSA	
Project Team	To be provided as part of the PCSA	
	[Name]	[Function]
	HartDixon LLP	Project Manager and Employers Agent
	TBC	Fire Engineer
	TBC	Approved Inspector
	TBC	Clerk of Works
	TBC	Independent Design Reviewer
Third Party Agreements		
Not applicable		

2.1.2

Contractor's Key Personnel

[Name]	[Function]
	Pre-Construction Director
Contractor's Representative (as at the date of this Agreement)	
	

Insurances

7.1.1

Professional Indemnity insurance – level of cover

(If an alternative is not selected the amount shall be the aggregate amount for any one period of insurance. A period of insurance for these purposes shall be one year unless otherwise stated.)

Amount of indemnity required

* relates to claims or series of claims arising out of one event

(If no amount is stated, insurance under clause 7.1.1 shall not be required.)

and is

£5M

Professional Indemnity insurance – cover for pollution and contamination claims

(If no amount is stated, such cover shall not be required; unless otherwise stated, the required limit of indemnity is an annual aggregate amount.)

* is not required

Nominating body – where no Adjudicator is named or where the named Adjudicator is unwilling or unable to act (whenever that is established)^[10]

(Where an Adjudicator is not named and a nominating body has not been selected, the nominating body shall be one of the bodies listed below selected by the Party requiring the reference to adjudication.)

- * The Royal Institution of Chartered Surveyors

[10] Delete all but one of the nominating bodies asterisked.

Attestation

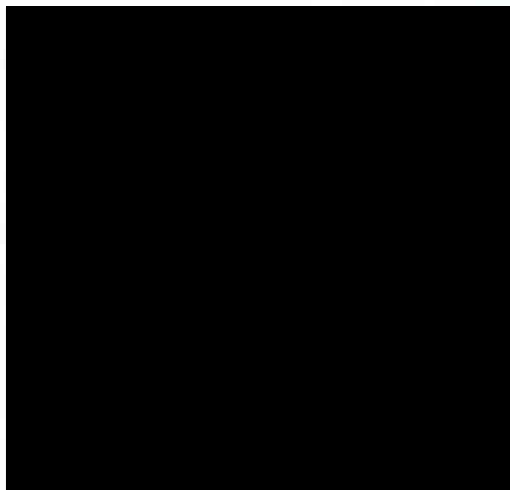
Execution under hand^[11]

As witness

the hands of the Parties
or their duly authorised representatives

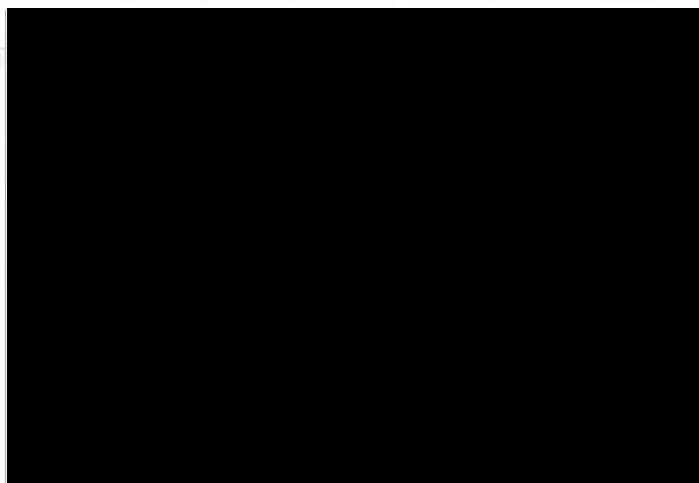
Signed by or on behalf of
the Employer

in the presence of:



Signed by or on behalf of
the Contractor

in the presence of:



[11] This Agreement for the reasons given in the Guidance Notes only provides for execution under hand.

Annex A Fee, Rates, Additional Payments and Reimbursable Expenses

*Note: An asterisk * indicates where selection has been or should have been made.*

1 The Fee

* The Fee is the fixed sum of £78,926.25

2 Payment of Fee etc.

The Fee shall become due and payable in accordance with section 6 at the following dates or stages/ milestones and in the following amounts or percentages^[12]:

<i>[Application date or stage/milestone at which due]</i>	<i>[Percentage of Fee or amount]</i>
1 month after commencement, and each subsequent month	To be assessed according to progress demonstrated

3 Contractor's Project Staff – Applicable rates

The *weekly all-in rate for any necessary extension of Pre-Construction Services work (and for the purposes of any apportionment under clause 10.6.2.1) is

£0 based on the Contractor's Project Staff of

<i>[No.]</i>	<i>[Person(s)/Grade]</i>	<i>[Rate per hour/day]</i>
<input type="text"/>	<input type="text"/>	£ <input type="text"/> per <input type="text"/>

4 Additional Services

The rates specified above shall apply (so far as properly applicable) for the purposes of any Additional Services instructed (or events or causes within clause 5.2).

5 Reimbursable Expenses

Subject to their being properly and necessarily incurred for the purposes of the Project, the following expenses/disbursements of the Contractor shall be reimbursable by the Employer up to any maximum amount or rate specified below or as otherwise agreed in writing from time to time:

<i>[Type]</i>	<i>[Maximum amount/rate]</i>
Not applicable	Not applicable

Save as otherwise agreed in writing, all other expenses and disbursements shall be deemed to be included in the Fee.

6 Supporting documents

Each application that includes any of the following types of charge or expenditure should be accompanied by the following documents:

<i>[Charge/Expenditure]</i>	<i>[Documentation]</i>
-----------------------------	------------------------

[12] If the dates or stages/milestones are not specified sufficiently clearly, the Scheme for Construction Contracts (under the Housing Grants, Construction and Regeneration Act 1996) will apply.

	<div></div>	<div></div>
7	VAT	

All amounts and rates shown above are exclusive of VAT.

Annex B Pre-Construction Services^[13]

Document(s) listing the Pre-Construction Services:

Brief for Delivery of PCSA (Pre-Construction Services Agreement) role for:
Cladding Remediation Works at the Spectrum Building, 22 Freshwater Road, RM8 1EH prepared by
HartDixon dated 13 January 2022

[13] Each Project has its own individual requirements, which generally require to be specified in considerable detail, and the listings are therefore a matter for the Parties and the Consultant Team. The five headings given above indicate merely a convenient (and commonly used) division of those requirements into the principal categories that may form a useful framework for the detailed requirements.

Guidance Notes

Introduction

- 1 This Agreement, the General Contractor (PCSA) version of the JCT Pre-Construction Services Agreement, is designed to cover the interim appointment of a contractor and the provision by him of pre-construction services where procurement is based on a two-stage tender process.
- 2 The appointment follows first stage tenders and covers the period leading up to the Contractor's submission of a definitive, second stage tender and entry into the Main Contract for the construction phase.
- 3 This Agreement envisages first stage tenders being made on the basis of designs by the Consultant Team that are only partially developed and that, during his appointment for the pre-construction period, the selected Contractor will assist with final development of the design and of specialist tender documents and with the arrangements necessary to obtain sub-contract tenders for the Contractor's second stage bid. The latter bid is to be made in accordance with costing parameters that are generally established by the initial tender documents.
- 4 The Contractor's involvement and advice during the pre-construction period, as to (inter alia) programme, cost plans, buildability and specialist procurement as well as the final design and preparations for the construction phase, is generally valuable and often essential, particularly in Design and Build procurement. It is in the pre-construction period, not during the construction phase, that the Employer, assisted by the Contractor and relevant specialists, is able to derive the greatest benefits from value engineering exercises.
- 5 Reflecting the advisory position of the Contractor during the pre-construction period, the Agreement is drafted on a basis similar to that of construction consultancy agreements.
- 6 This Agreement is designed for use between the Employer and the prospective Contractor in cases where it is necessary for a main contractor to establish and maintain a substantial team of his own to work with the Consultant Team during the pre-construction period. It is intended for use in connection with the JCT Standard Building Contract, Design and Build Contract, Major Project Construction Contract and the two versions (IC and ICD) of the Intermediate Building Contract 2016. Subject to minor adaptation, it can also be used with Trade Contractors under JCT Construction Management documentation, since each of those contractors contracts directly with the Employer.
- 7 Subject to the Trade Contractor exception, however, it is not intended for use between the Employer (or main contractor) and specialist sub-contractors; pre-construction arrangements with specialists (by either the Employer or the Contractor) are catered for by the other version of the agreement, namely the JCT Pre-Construction Services Agreement (Specialist) (PCSA/SP). These agreements are by their nature intended to be simple and the insertion here of even a modest selection of the necessary alternatives for arrangements with specialists would result in too lengthy and complex a document.
- 8 The payment provisions in this Agreement comply with the requirements of the Housing Grants, Construction and Regeneration Act 1996 as amended by the Local Democracy, Economic Development and Construction Act 2009 ('the Construction Act').

Specific Provisions

Recitals

- 9 The First Recital requires the insertion of a brief description of the Project, with the detailed descriptive document(s) identified in the Particulars. The detailed description is important because it defines the scope of instructions that can be given to the Contractor as to matters that are (or should be) within his competence.
- 10 The Second Recital identifies the Employer's Agent, who it is envisaged will have full authority to act on the Employer's behalf in the Pre-Construction Period. Any notice to the Employer that the Contractor sends to the Employer's Agent is duly given if sent by the appropriate means, but under clause 4.1 the Employer may in other respects limit the agent's authority by written notice to the

Contractor,

- 11 For the Construction Phase of projects where the Architect/Contract Administrator acts as certifier, e.g. those under Standard Building Contract or Intermediate Building Contract 2016, the JCT discourages appointment of the Architect/Contract Administrator as Employer's Agent. During the Pre-Construction Period, however, where payment is on an application basis and there is no independent certifier role, there is no necessary conflict in the Architect or other Lead Consultant acting also as Employer's Agent. It may often assist co-ordination if he does so.
- 12 The Third and Fourth Recitals relate to the CDM Regulations. The Fifth Recital refers to the Contractor's first stage tender or initial proposal document(s) intended to form the basis of the Contractor's Second Stage Tender; the reference to initial proposal document(s) is intended to include any existing Framework or similar agreement that in effect serves as a tender for these purposes. The Fifth Recital also refers to Annex A (the Fee) and Annex B (the Pre-Construction Services), which the parties must complete; the Sixth Recital sets out a provisional timetable for the end of the Pre-Construction Period and commencement of the Construction Phase.

Section 1 – Definitions and Interpretation

- 13 In keeping with the aim of brevity, section 1 defines only those terms not defined earlier in the Agreement. Several of the defined terms are common to the JCT range as a whole, including in this edition new terms relating to BIM and the CDM Regulations. In relation to BIM, there is a new entry in the Particulars against clause 1.1. If a BIM Protocol is to apply this must be stated and the identified protocol included in the Employer's Requirements.
- 14 Those terms that are not already familiar are mostly self-explanatory. Of those that are less familiar, the term Additional Payment relates to payment for Additional Services (or for any other events or causes within clause 5.2) that is not effected by means of an adjustment of the Fee (where, for example, a one-off payment is more appropriate than payment phased over the remainder of the Pre-Construction Period). The listing of 'Contractor's Project Staff' in Annex A is intended to assist in distinguishing between, on the one hand, those instructions from the Employer which he can reasonably expect to be dealt with in the ordinary course by the Contractor's existing Project Staff within the agreed Fee and, on the other, those instructions that can properly be said to be for additional work not covered by the original Fee.
- 15 The Interpretation provisions of PCSA 2016 contain two straightforward changes, both of which relate to BIM, i.e.:
- first, clause 1.2.1 deals with precedence of documents, and in this regard any BIM Protocol stated to apply is one of the documents identified in the Particulars but some model protocols claim in the case of conflict to override the Agreement and other contract documents; JCT considers that its contracts give sufficient latitude to BIM Protocols so that a conflict should not arise; in any event, it also considers that unqualified overriding provisions of this type are not appropriate in such protocols;
 - secondly, with a view to avoiding any 'form over substance' argument, clause 1.2.2.6 reflects the fact that, under BIM, designs and information supplied to or by the Contractor may not take the same name or form as their hardcopy equivalent, albeit they clearly serve the same function.

Section 2 – Contractor's General Obligations (and Annex B)

Pre-Construction Services

- 16 The principal obligation of the Contractor is to provide the Pre-Construction Services, as listed by the Parties in Annex B which, for the purposes of that listing, contains an indicative division into five sections (Programme preparation, Construction advice, Cost advice, Procurement and specialist design development services, and Establishment of management and communication systems).
- 17 It is not reasonably practicable in this Agreement to give standard detailed listings of the services that the Contractor is expected to supply, first because they will vary according to the nature of the project and, secondly, because the Contractor's role and relationship with the other members of the Project Team will differ materially as between Design and Build projects on the one hand (under the Design and Build Contract or Major Project Construction Contract 2016) and those procured under the direction of a Contract Administrator (i.e. under the Standard Building Contract or either version of the Intermediate Building Contract 2016) on the other. A substantial proportion of Employers already have listings appropriate for Annex B and such listings should also be readily available from the Consultant Team.
- 18 The JCT envisages that construction advice will include development of the Construction Phase Plan

in a manner that incorporates best industry safety practices and that both CDM and other Health and Safety matters will be dealt with thoroughly in tender documentation for specialist sub-contractors.

Performance of Services

- 19 The provisions of clauses 2.1 to 2.6, governing performance of the Pre-Construction Services, are all substantially in standard JCT terms, as to compliance with the Employer's Requirements and applicable legislation (clause 2.1), level of skill and care (clause 2.1.1), compliance with instructions (clause 2.2), the supply of information (clause 2.3, which also includes an express duty of co-operation), deleterious materials (clause 2.4), Fire Code (clause 2.5) and the requirement for consent to sub-contracting (clause 2.6).
- 20 Clauses 2.1 and 2.3 make reference to compliance with other documents which may or may not be included within the Employer's Requirements, namely the Cost Plan (which will no doubt alter and develop during the Pre-Construction Period) and Third Party Agreements, a term which covers agreements relating to the site and its use and agreements relating to the requirements of prospective purchasers and tenants. It is envisaged that the listing of those agreements will be fixed at the outset; any further agreements affecting performance of the Pre-Construction Services that the Employer enters into during the Pre-Construction Period may of course be dealt with under section 5.
- 21 Under clause 2.1.2, unless otherwise agreed, the Contractor is required to ensure that his Key Personnel fulfil the roles that have been agreed and are readily accessible to the Employer and Consultant Team. Clause 2.1.3 provides for involvement of the Contractor's supply chain.
- 22 Clause 2.2 provides for compliance with instructions, but at clause 2.2.2 also provides for immediate consultation if the Contractor has objections to an instruction on grounds of a material and adverse effect on the Project, as distinct from matters relating principally to time or money, which are dealt with in section 5.
- 23 Clause 2.7 makes provision for the Contractor's Second Stage Tender, as envisaged by the Sixth Recital, though clause 2.7.2 makes it clear that the Employer is not bound to accept that tender. Clause 2.8 conversely provides that, personal injury apart and unless otherwise stated in Annex B, the Contractor has no liability to the Employer in respect of any design work under the Pre-Construction Services Agreement unless and until the Parties enter into the Main Contract, when any such work is placed on the same footing as design work under the Main Contract. If Annex B expressly provides for design liability independently of the Main Contract, the Contractor should check that the required level of skill and care and extent of liability are reasonable.

Section 3 – Employer's General Obligations etc.

- 24 Apart from the obligation to maintain an Employer's Agent (clause 4.1) and payment obligations, which are dealt with in sections 5 and 6, the Employer's obligations are limited to complying with applicable CDM Regulations and supplying the necessary information in his control (clause 3.1), making decisions promptly on request (clause 3.2) and exercising his powers to ensure that members of the Project Team do not prevent due and timely performance of the Pre-Construction Services (clause 3.3).

Section 4 – Representatives and Contractor's Key Personnel

- 25 Under clause 4.1 the Employer is required to maintain an Employer's Agent during the Pre-Construction Period. The Contractor for his part is under an obligation to have a Contractor's Representative and not to make any voluntary changes in that appointment or in Key Personnel without the Employer's consent (clause 4.2), but the Employer has a right under clause 4.3 to require their removal for unsatisfactory performance. Where replacement is necessary, the Employer's prior approval of the proposed appointee is required.

Section 5 – Additional Services, Fee Adjustment

- 26 Under clause 5.1, the Employer can instruct alterations and additions to the Pre-Construction Services that are within the Project's scope and the Contractor's competence.
- 27 If the altered or additional services cannot reasonably be expected to be carried out by the Contractor's agreed levels of Project Staff in the ordinary course during the Pre-Construction Period or if there is material alteration, delay, prolongation or disruption to the Contractor as a result of a Project-related event or cause beyond his control, he is entitled to additional payment for it (clause 5.2) provided he notifies the Employer in accordance with clause 5.3. Any additional time requirements should be notified as well as costs; both are fairly to be assessed under clause 5.5.

Section 6 – Payment (and Annex A)

- 28 The provisions of section 6 follow the standard JCT payment provisions closely, with clause 6.1 providing for payment of the Fee and Reimbursable Expenses (each to be specified in, or calculated in accordance with, Annex A) together with any Additional Payments in accordance with section 5 and the VAT properly chargeable.
- 29 Clause 6.2 provides for applications by the Contractor at specified dates or stages, with such documentary evidence as is either specified in Annex A or reasonably required by the Employer. The final date for payment (clause 6.3) has been reduced in line with other JCT 2016 contracts and is now 14 days from the respective due date. Those provisions are then followed by standard provisions as to payment and pay less notices (clause 6.4), interest on unpaid amounts (clause 6.5) and the Contractor's right of suspension (clause 6.6). It will be noted that in default of notice by the Employer in accordance with clause 6.4.1 or 6.4.3, the Contractor is statutorily entitled to payment of the amount he has applied for. In clause 6.6, the Contractor's right of suspension for non-payment reflects the statutory right for him to recover his reasonable costs and expenses arising from such suspension.
- 30 Paragraph 1 of Annex A requires the insertion there of the amount (or basic amount) of the Fee and/or the method of calculation (if or to the extent that it is not a fixed sum), together with details of any other terms that affect that amount or calculation. The dates/stages/milestones for payment should then be set out in paragraph 2. It is important that these terms should be set out clearly. Paragraph 3 of the Annex specifies the Contractor's Project Staff requirement (which may of course vary over the period) and enables the Parties to specify hourly, daily or weekly rates for valuing additional work, subject to any further terms that the Parties specify in paragraph 4.
- 31 As respects paragraph 5, it is desirable that the categories of Reimbursable Expenses be listed and that an appropriate limit be put on the overall amount and/or the rate at which such items are reimbursable.
- 32 Paragraph 6 is not exhaustive, since the Employer has a residual right to call for reasonable evidence of time charges and other payments and disbursements by the Contractor, but it is also desirable that there should be agreement in advance on the documentation generally required to support the Contractor's payment applications in this regard.
- 33 As indicated in paragraph 7, all amounts and rates shown in the Annex are exclusive of VAT.

Section 7 – Insurance

- 34 If so stated in the Particulars, the Contractor is required to maintain Professional Indemnity ('PI') and Public Liability insurances in the amounts specified in the Particulars and on request to produce appropriate evidence of such insurances. The obligation to maintain PI insurance is subject to the usual proviso as to continuing availability at commercially reasonable rates, but is not related solely to design work. In the JCT's view PI cover is desirable where (as here) the Contractor is providing professional or similar advisory services.
- 35 In relation to PI cover, it will be noted that, while the Particulars continue to provide a separate optional limit for pollution and contamination claims, there is no longer provision for asbestos or toxic mould cover as cover for those items is very limited and not readily available to Contractors in their own right. If pollution or contamination cover is required and is only available to the Contractor on a limited exposure basis (e.g. sudden and unforeseen events), this should be disclosed pre-contract to the Employer and recorded in the Particulars.
- 36 This Agreement is not intended to cover preliminary asbestos removal work, which can only be undertaken by licensed specialists: they should have access to the insurance schemes specifically set up for their industry and, while their insurance needs to be checked, it is in any event recommended that any such work should be dealt with by a separate agreement.

Section 8 – Use of Contractor's Information, Confidentiality etc.

- 37 The section comprises the standard JCT licence for the Employer to use the Contractor's design work (clause 8.1) and an undertaking by the Contractor to keep confidential information that relates to the Employer or the Project (clause 8.2). Employer's consent to related publications is not to be unreasonably withheld; this is appropriate in a large majority of cases, but it will be recognised that there are Employers who need to limit or preclude publicity regarding their construction activities. Clause 8.3, if it applies, deals with the authorising of disclosures by public sector employers in accordance with the Freedom of Information Act 2000.

Section 9 – Assignment and Novation

- 38 Clause 9.1 contains the standard JCT restriction on assignment.

39 Where the Main Contract is a JCT Design and Build Contract or Major Project Construction Contract 2016, clause 9.2 provides for the novation, upon entry into the Main Contract, of the agreements/appointments of Consultant Team members identified in the Particulars and, whichever form of Main Contract is used, it provides for novation of contracts or orders with specialists and suppliers who are either identified in the Particulars or in relation to whom it is otherwise agreed by the Parties that there should be a novation under clause 9.2. The clause and Particulars envisage that there may be different forms of novation agreement for consultants on the one hand and for specialists/suppliers on the other.

40 The JCT itself does not at present publish forms of novation agreement.

41 However, novations, though commonplace, are not entirely straightforward. The Contractor will need to review the agreements and appointments to be novated and each party may need advice before agreeing to enter into novations. The Employer needs to ensure that his obligations will be discharged but that he will remain entitled to any necessary warranties in respect of past services; the Contractor will wish to ensure that he has the necessary representations, warranties and/or undertakings as to performance prior to the novation, free of any unreasonable limitations and 'no loss' arguments, and that, save as provided for in the Main Contract price, amounts owing or accrued to the consultant, specialist or supplier are discharged on or before the novation. The consultant or specialist for his part may also be concerned to preserve any 'net contribution' protection that might otherwise disappear on novation.

Section 10 – Suspension by the Employer, Termination, Adjudication and the PC Regulations

42 In this edition, along with other contracts in the JCT 2016 range, provisions have been included to reflect the Public Contracts Regulations 2015 ('the PC Regulations'). These provisions will only apply where the Employer is a Local or Public Authority and the Agreement is subject to those regulations. The new provisions in section 10 include new termination grounds (regulation 73(1)), reflect aspects of the sub-contracting regulation (regulation 71) and refer to the prompt payment regulation (regulation 113). For a more detailed summary of those provisions, please go to www.jctltd.co.uk. (Reference should always be made to the wording of the regulations themselves and if there is any doubt as to the applicability of the PC Regulations generally or any specific provision, appropriate legal advice should be taken.)

43 In keeping with the preliminary nature of the Agreement, the Employer has the right at any time to suspend the Pre-Construction Services or part of them (clause 10.1) or to terminate the Contractor's employment at will (clause 10.5.1), in each case on not less than 14 days' notice.

44 In the case of suspension, the Employer has the right under clause 10.2 to instruct the Contractor to remobilise but, if the period of suspension exceeds the relevant period (6 months or such other period as is specified in the Particulars) and such instruction has not been given, the Contractor, after giving a warning notice, may himself terminate his employment.

45 In common with JCT contracts generally, each Party has the right to terminate that employment in the case of the insolvency or unremedied default of the other (clauses 10.5.2 and 10.5.3). In the case of default a warning notice is required.

46 In the case of suspension by the Employer, there is provision for payment up to the date of suspension, plus reasonable demobilisation costs (clauses 10.1.1 to 10.1.4), with clause 10.2 making provision for remobilisation costs and for the notification of costs either way.

47 In the case of termination, clause 10.6.1 makes provision for consultation and delivery of documents and clause 10.6.2 for the financial consequences of termination. The latter are essentially limited to costs and expenses incurred by the Contractor, less, in the case of termination for the Contractor's insolvency or default, the additional cost to the Employer in procuring completion of the Pre-Construction Services. No other loss or damage, e.g. loss of profits, is payable as a result of termination (clause 10.6.4).

48 Suspension, warning and termination notices each require to be given by the means set out in clause 1.4.2. In relation to disputes and in line with JCT contracts generally, clause 10.7 incorporates into the Agreement the Adjudication provisions of the Scheme for Construction Contracts.

Attestation – Execution under hand

49 The Pre-Construction Services Agreement is a relatively simple short-term agreement and therefore the form provides for execution under hand only and not for execution as a deed.

50 The rationale for execution as a deed would be the longer limitation period of 12 years, as opposed to the 6 year period for agreements executed under hand, desirable where there is a possibility of latent

defects in construction work or design remaining undetected for a substantial period. Here it is anticipated that the Contractor will not be undertaking any material construction work and that, in most cases, the Pre-Construction Services performed by the Contractor will generally be of the types indicated in Annex B, i.e. will not include a substantial element of design work. Design work performed during the period will normally fall to the Consultant Team and/or specialist contractors who at that stage are generally employed separately by the Employer.

- 51 Any prefabrication, advance ordering or detailed design agreement is best dealt with by a separate agreement or order.



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SWEET & MAXWELL



THOMSON REUTERS

Date 02 August 2022

Ref: 20644 pcsa brief

Brief for Delivery of PCSA (Pre-Construction Services Agreement) role for: Cladding Remediation Works at the Spectrum Building, 22 Freshwater Road, RM8 1EH



Introduction

An EWS1 and Façade Survey Assessment Report was carried out on the above building in December 2020. This indicated that there are some high and medium risk issues that need to be remediated. HartDixon have been appointed as project managers to lead the remediation process.

The building in question is known as the Spectrum Building, 22 Freshwater Road, RM8 1EH as pictured above. The building was originally an office block and was converted to residential, including a two storey extension to create floors 5 and 6, around 2013. It is understood that the building freehold was purchased by the present owner in 2019. The report identifies four areas of concern and recommends remediation in the medium term:

- The high pressure laminate on timber frame cladding system that has been used for the extension of the building to create floors 5 and 6.
- The “spandrel” window infill panels to floors G-4
- High pressure laminate privacy screens between balconies
- Timber decking to balconies

The report provides some caveated options to the replacement of the cladding to floors 5 and 6, but these do not appear to be feasible so this strategy assumes that they will need to be replaced.

It has been determined that the above project will benefit from the appointment of a suitable Specialist Contracting Company to deliver the requirements listed below within a PCSA. The PCSA provider shall employ all required professionals and designers to provide the deliverables listed below with the exception of the following who will be engaged directly by the Client:

- Project manager, CDM Principle Designer and Employers Agent (HartDixon)
- Independent Quantity Surveyor to provide value for money (VfM) report required for the BSF application if



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the costs are negotiated, together with ongoing cost control.

- Fire Engineer to check proposals and issue EWS 1 determination on completion.
- Building Control Approved Inspector.

The contractor appointed to provide PCSA services is not guaranteed the contract to carry out the remedial cladding works, and all information delivered in relation to the PCSA shall become the property of the Client.

Specific PCSA Deliverables

- Review of EWS1 and Façade Survey Assessment Report dated December 2020 and any as built information available
- Selection of replacement materials from those available that meet the requirements of the building regulations and MHCLG advice note on cladding.
- Further intrusive site investigations required to confirm existing fabric and design details
- Consideration of thermal properties of the alternative materials and if additional measures are required to maintain the overall insulation value.
- Evidence to support appeal for funding of items that are currently non-eligible.
- Effect on appearance of the building resulting from the replacement materials and consideration of the need for planning consent. Note that it is a requirement of the BSF that consent is obtained or confirmation from the planning authority that an application is not required.
- Design for the cladding remediation to RIBA stage 3
- Design required for the incorporation of replacement materials into the overall fabric such as junctions and service penetrations.
- Confirmation that the new design system is compliant with the requirements of the Building Regulations and MHCLG advice note so that a EWS 1 Determination of A can be issued on completion of the work.
- Means of access to the areas requiring remediation and temporary protection to the building while works are carried out.
- Detailed cost breakdown for review by the Quantity Surveyor, together with costs in format required for the Building Safety Fund Stage 2 application.
- Detailed programme for remedial works, including any remaining design, other pre-construction activities and procurement periods

Other PCSA Requirements

- Review in conjunction with the Professional Team the objectives and requirements of the Employer and develop them in a manner approved by the Employer.
- Use best efforts to achieve economies in time, cost and design and suggest any design changes which could be made to reduce the incidence of conflict or duplication between trades.
- Identify areas of potential cost savings and recommend appropriate action by the Professional Team. Participate in value engineering costing studies with the Professional Team and/or Specialist Contractors.
- Provide buildability advice. Review and advise on the practical implications of the proposed drawings and specifications and formulate and agree construction methods with the Professional Team and any Specialist Contractors and advise on safety requirements and good industry practice.
- Advise the Employer's Agent, Architect and Cost Consultant on procurement and programme by reference to the Programme, including preparing and agreeing with the Employer's Agent, Architect and Cost Consultant a procurement and construction programme.
- Investigate and advise upon programming and construction methodology and sequencing to improve or shorten the Programme and to ensure the earliest or most efficient schedule of handover.
- Provide early warning of any likely overspend as against the relevant estimate in its Cost Plan and, in conjunction with the Professional Team, identify how costs can be brought within budget.
- At all times liaise and co-operate with the Cost Consultant and provide the Cost Consultant with such financial and other information relating to the Project as it may request from time to time.



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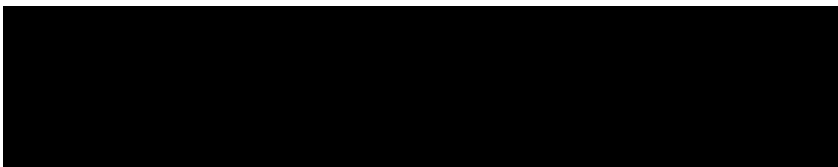
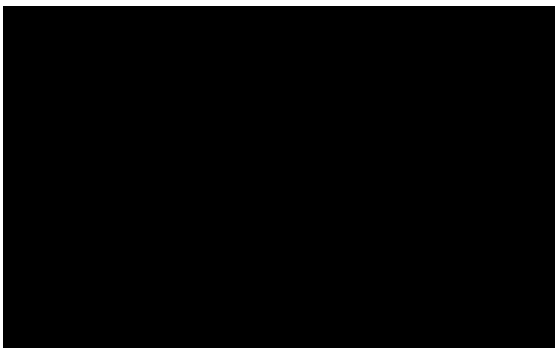
- Plan and prepare a detailed methodology for construction works, especially with regard to sequencing, temporary support, existing services relocation or protections, existing means of escape, protection, maintaining the structural integrity of the existing structures or facilities which adjoin, abut or run through the site and the safety of users and occupiers of the surrounding properties, structures or facilities.
- Prepare a detailed methodology which addresses the measures that the Contractor proposes to undertake to ensure both protection and security of the site and any continuing access for vehicles around and to the site.
- Monitor and advise on materials, component and labour plans of the proposed works.
- Monitor and advise on the availability and price of materials, method of working, labour plans, building systems, feasibility of construction and manufacture of components and installation of construction.
- Prepare material, labour and component flow schedules and identify those which require advance ordering and processing, including a time based procurement schedule and a related trade personnel or operative resources histogram; identify all pre-fabrication items.
- Notify the Employer and the Cost Consultant if any proposed subcontractor or supplier is affiliated directly or indirectly to the Contractor (or its parent or other group companies).
- Liaise with the Principal Designer regarding production of the health and safety file and provide to the Principal Designer all information requested for inclusion in the health and safety file.
- Assist in developing and updating the Construction Phase plan according to the CDM Regulations in conjunction with the Principal Designer and the professional Team.
- Recommend, in conjunction with the Professional Team, appropriate site investigation works to be carried out and monitor their execution and report to the Employer thereon.
- Assist the Employer and the Professional Team in liaising with public authorities, public and fire officers and the like, by providing information to and assisting the professional Team in making and negotiating all applications, approvals, waivers or agreements necessary for the Project.
- Procure measurements of the building to facilitate the works under the Main Contract.
- Work in conjunction with the Approved Building Inspector to develop and implement a strategy to satisfy and discharge Building Regulations.
- Provide expenditure justification alongside Fee submissions relating to any third party design fees.
- Provide the Employer with a schedule of pre-construction Surveys & Due Diligence activities required on site in line with the Pre-Construction programme.

Appended Information

EWS1 and Façade Survey Assessment Report dated December 2020

Draft programme

Prepared on behalf of HartDixon



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Employer's Requirements
The Spectrum Building

APPENDIX C

FAÇADE SURVEY ASSESSMENT REPORT (Incl. EWS1 Determination)

Facade Survey Assessment Report (Incl. EWS1 Determination)



Building: Spectrum Building, 22 Freshwater Road, Dagenham, RM8 1EH

Report Author: [REDACTED]

Project Reference: J000034 / ASLPR200228B

Date: 21.12.2020

Instructing Client: Chadwell Properties LLP

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Version	Date Issued	Author	Update Information
V1.0	02.12.2020		Draft Report
V2.0	21.12.2020		Amendments following issue of Chartered Fire Engineers report

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REPORT AUTHORS

Name / Role	Professional Memberships and Qualifications	Signature
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REVIEWED BY

Name / Role	Professional Memberships and Qualifications	Signature
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EXECUTIVE SUMMARY

- 0.1 This report provides an analysis of the type and nature of any cladding systems utilised within the construction of Spectrum Building, 22 Freshwater Road, Dagenham, RM8 1EH with the specific objective of providing informed advice and guidance as to whether the external façade and any attachments meets (or not) the advice and guidance issued by the Ministry of Housing, Communities and Local Government (MJHCLG)
- 0.2 This report was commissioned to provide an analysis and evaluation of the current cladding systems employed at the property and determine compliance with the MHCLG guidance as well as provide an EWS1 form for the client to use in respect of any financing arrangements for the property
- 0.3 The scope of this report covers the external façade and any attachments to Spectrum Building, 22 Freshwater Road, Dagenham, RM8 1EH only; all other areas including tenants demised areas are excluded from this report and investigation.
- 0.4 It was noted that the following types of cladding systems have been utilised on site:

Cladding / Wall Type 1

Solid concrete, DPM (assumed), Timber Batten (assumed), Laminated Polyisocyanurate (PIR) and Plasterboard (assumed).

Cladding / Wall Type 2

Render, Hollow Concrete Masonry Blockwork (assumed), Timber Batten (assumed), Fireline Plasterboard (assumed).

Cladding / Wall Type 3

High Pressure Laminate Panel, Clear Cavity, Breathable Membrane, Timber Oriented Strand Board, Soda-lime-silicate (Glass Wool), Timber Framing (assumed), Vapour Control Layer (assumed), Timber Batten (assumed), Fireline Plasterboard (assumed).

Cladding / Wall Type 4

Polyvinyl Chloride PVC, Fibreboard, Polystyrene Insulation Foam, Fibreboard (assumed), Polyvinyl Chloride PVC (assumed).

In addition to the various wall types, the following attachments to the façade were noted:

Attachment Type 1 – Balconies

Steel structure and balustrading, timber decking.

Attachment Type 2 – Privacy Screens

High Pressure Laminate Panel.

0.5 Overview of findings

- 0.5.1 The physical survey of the building, representative sampling and testing of materials at a UKAS accredited laboratory has enabled a determination of **B2** for the EWS1 Form.
- 0.5.2 The physical survey of the building highlighted a number of areas of concern due to unconfirmed fire classification / type of high pressure laminate panel and its associated timber framed wall construction (wall type 3), the spandrel / window insulated panels (wall type 4) and the timber decking and high pressure laminate privacy screens used within the facade.
- 0.5.3 Testing of the materials obtained by representative sampling at a UKAS accredited laboratory has indicated that the composition of the facade and the materials used within was consistent across sample locations. Seven of the materials tested were found not to be of limited combustibility.
- 0.5.4 This has impacted upon the determination for the EWS1 Form which has been peer reviewed by a Chartered Fire Engineer. Following this determination, we have highlighted our observations regarding compliance with the Building Regulations and performance standards. Finally, this document provides a brief summary of the recommendation for remediation in respect of the facade.
- 0.5.5 A full Fire Safety Risk Assessment of the fire risk posed by the high pressure laminate panel and its associated timber framed wall construction (wall type 3), the spandrel / window insulated panels (wall type 4) and the timber decking and high pressure laminate privacy screens will be necessary.
- 0.5.6 The determination of **B2** has been established based on investigative works which have confirmed:
- The primary materials of the external walls are considered not to be of limited combustibility as defined within BS 9991:2015 as:
 - It is currently unclear whether the high pressure laminate panels installed to the upper additions of floor levels 5 and 6 (wall type 3) meets with the guidance of the MHCLG advice note (January 2020).
 - The construction arrangements / components utilised for the upper additions of floor levels 5 and 6 (wall type 3 - timber frame construction) are considered not to meet the requirements of the MHCLG advice note (January 2020) as they would appear not to achieve a minimum rating of '*Class A2-s3,d2 or better*'.
 - The construction arrangements / components utilised for the upper additions of floor levels 5 and 6 (wall type 3 - timber frame construction)

are considered not to meet the requirements of the Building Regulations 2010 (Regulation 7(4)) as they would appear not to achieve a minimum rating of Class A2-s1, d0 or A1.

- The composite panels utilised within the spandrel / window insulated panels are considered to be both combustible and flammable (Plastic Coating (Polyvinyl Chloride PVC), Fibreboard (Cellulose / wood fibres) and White Foam Insulation (Polystyrene)) with the Polystyrene core also producing droplets of flaming molten polymer. As it is assumed that the composite panels feature the same composition both externally and internally (to be verified), the risks associated with accidental ignition and fire spread across the facade are increased.
- The timber decking (attachment type 1) and high pressure laminate privacy panels (attachment type 2) installed across the facades are considered to be both combustible and flammable, representing an increased risk of fire spread across the building.
- Due to the potentially combustible and flammable materials across the buildings facades, the fire risk cannot be considered as 'low'.

0.6 Remediation Recommendations

The following remediation measures are recommended to assist in mitigating the fire risks to an acceptable level:

0.6.1 Short Term

- Clear dialogue should be established between the responsible person and the relevant fire and rescue service to ensure all parties are aware of the current building arrangements including any risks associated with the combustible High Pressure Laminate system, the timber frame constructed fifth and sixth floor levels, spandrel panels and timber decking to balconies.
- Clear dialogue should be established between the responsible person and the current occupants of all apartments to assist in minimising the risks associated with external fires, including:
 - All external ignition sources (smoking / BBQ's) should be removed from balcony areas.
- The current fire risk assessment should be reviewed and updated where necessary following the findings evidenced in this report. This review should include consideration of the current evacuation strategy (which the current assessment fails to highlight) to establish its suitability. If the current strategy is found to be

inappropriate with regards to the current risk, the National Fire Chiefs Council (NFCC) guidance should be considered.

- Confirm that the junction between the existing external wall and the existing structural floor is adequate to ensure horizontal compartmentation.
- The fire risk from the basement level and ground floor commercial and retail occupancies should be assessed, with particular attention of any occupancies with cooking / frying facilities.

0.6.2 Medium Term

- The following medium-term actions focus on the fifth and sixth floor levels that incorporate the High Pressure Laminate / timber framing systems (wall type 3), where the greatest risk of external fire spread exists. These actions are aiming to deliver a proportional response to the risk of external fire spread.

The options available are as follows:

1. If evidence can be provided that the external wall / cladding system (wall type 3) used on the Spectrum Building has been subject to a BR135 classification, a detailed survey must be undertaken to identify the as built construction and ensure the integrity of the external wall system from an external fire spread perspective is as per the classified system (including cavity barriers).
 2. Undertake a holistic fire engineering analysis to determine the additional fire safety measures necessary to ensure an adequate level of fire safety accounting for the High Pressure Laminate / timber framing systems (wall type 3) at fifth and sixth floor levels. This assessment should be undertaken in consultation with the fire and rescue service, building insurer and the residents of the Spectrum Building.
 3. Remove the external wall / cladding system and replace with materials that achieve Class A2-s3,d2 or better, to demonstrate that the external wall / cladding system meets the guidance within the MHCLG advice note (January 2020).
- Irrespective of the option selected above, the spandrel panels (wall type 4), timber decking to balconies (attachment type 1) and High Pressure Laminate privacy screens (attachment type 2) should be replaced with materials that meets the MHCLG advice note (January 2020).

0.6.3 Long Term

- Given that the Building Safety Bill is highly likely to be legislated over the next two to three years, it is recommended that the actions undertaken should ensure that the Spectrum Building will be in a position to demonstrate structural and fire safety standards against the new legislation and regulations including:

- Development of a Safety Case.
- Collection and presentation of the necessary building information in a digital format.

Please Note: This is not an exhaustive list, nor is it intended to act as a design guide for compliance nor to provide legal advice in relation to any applicable British Standards, Guidance, Regulatory requirements or statutory obligations.

1.0 INTRODUCTION

- 1.1 Ark Sustainability Ltd (Ark) has been instructed by Chadwell Properties LLP to undertake investigations of the external façade Spectrum Building, 22 Freshwater Road, Dagenham, RM8 1EH to support meeting the requirements of the Ministry of Housing Communities and Local Government (MHCLG) current guidance regarding external façade and cladding systems.
- 1.2 Following the Grenfell disaster and the publication of numerous advice notes and guidance issued by MHCLG regarding external façades and cladding systems (with the most recent dated January 2020) along with the publication of the Building (Amendment) Regulations 2018 (S.I. 2018/1230) banning certain cladding materials, there is a clear need for owners to determine the suitability and sufficiency of the materials used in the external façade construction and importantly whether or not the external facades are meeting the recommendations contained within the said advice notes and guidance.
- 1.3 Ark has developed a methodology for undertaking such investigations based on the advice and guidance issued by the MHCLG which will provide the client with a high level of validation and verification of the composition of an external façade and how this does or does not meet the recommendations, guidance and advice provided by the MHCLG.

1.4 Scope and Exclusions

- 1.4.1 This report and investigation is limited to the external façade of Spectrum Building, 22 Freshwater Road, Dagenham, RM8 1EH only and in line with the proposed methodology as set out in Ark's proposal reference ASLPR200228B.
- 1.4.2 The facade survey and investigation is intended to provide indicative evidence as to the facade composition and the materials used to assist with a determination for the issuance of an EWS1 Form. The facade survey and investigation is by no means conclusive as it limited to representative sampling.
- 1.4.3 In this report - elements of building structure and fabric may be referred to, but this is for reference only and is not to be relied upon for determination of composition nor condition. Where we feel further investigation is merited, specific reference to this will be made in our report. The report is not intended to comment on the condition and the quality of the installation of facade components and where reference is made to these, the purpose is to provide context to observations where appropriate.
- 1.4.4 Whilst the report in various areas refers to the MHCLG guidance, the scope is limited to the guidance relating to the external façade and any attachments only. It excludes consideration of the guidance in relation to other areas, such as smoke control systems and fire doors.

1.5 Methodology

1.5.1 In line with the agreed methodology as detailed within Proposal ASLPR200228B, the following methodology has been adopted.

1.5.2 Stage One & Two - Desk Top Review, Orientation Survey & RAMS

- Initial desk-top research of the information available (on public databases and open sources) - product literature, fire test results, client held information/reports etc and other publicly available information relating to the property.
- Orientation visit undertaken at the building subject to survey and an initial assessment of the external wall construction and cladding systems.
- Desk-top review and method statement produced detailing the survey and investigation method (Desk-Top Review and Method Statement).

1.5.3 Stage Three - Sampling and Investigation Survey

- Appointment of competent specialist surveying/fire engineering consultant
- Review of any available/relevant documentation provided by the client including a copy of any existing cladding survey or details/O&M Manuals (containing as-built documentation, specification and drawings) and other related documentation and photographs for reference purposes.
- Intrusive investigation of the external façade construction by representative sampling using endoscope technology and the taking of small-bore samples where available and appropriate.

1.5.4 Stage Four - Assessment of Facade Materials

- Samples analysis and assessment at a UKAS registered laboratory
- Review of laboratory analysis report and survey findings by the appointed Consultant.

1.5.5 Stage Five - Evidence Report and EWS1 submission

The purpose of this final report is to provide clients with a formal understanding of the external façade construction and fire safety arrangements and to provide formal due diligence in determining compliance to current guidance and to enable the issuance of an EWS1 form.

- Appointed Consultant will consider the available documentary evidence together with the on-site investigation data and laboratory results
- Combining all the available information a formal investigation report will be produced.

- Where appropriate - a Chartered Fire Engineer will review the findings and the recommendations for remediation action in accordance with guidance issued by MHCLG (2020) and the IFE (Guidance Note 1).

- 1.6 Where it is clear that insufficient evidence is available to confirm compliances or non-conformance relating to the external facade in respect of the advice and guidance issued by the MHCLG along with the 2018 Regulations, this will be clearly indicated in the section entitled 'Recommendations for Remediation Work'. This will provide a clear route for the client to achieve the necessary standard of compliance and evidence in respect of the EWS1 Form and MHCLG Guidance (2020).

Note: Where clients wish ASL to project manage or review remediation work schemes then this will be subject to a separate proposal.

- 1.7 A Fire risk assessment which includes consideration of the findings of this report may also be required in order to provide a determination for the purposes of the EWS1 Form and managing any risks safely within the building under review. Where this is necessary ASL will advise the client and this is subject to a separate proposal.

1.8 Documentary Evidence

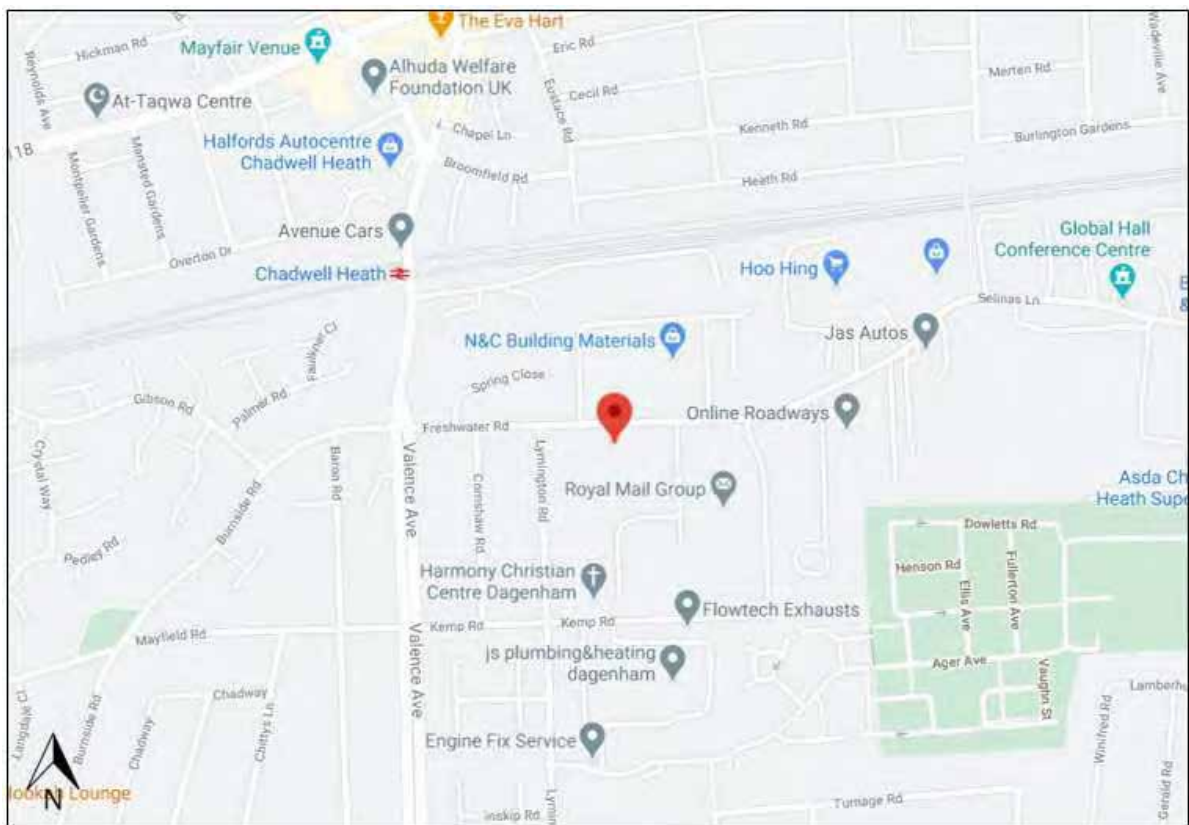
1.8.1 The following evidence has been provided by the instructing client or was available from alternative sources at the time of compiling this report.

Documentary Evidence	Provided by Client YES/NO?	Available from alternative Source YES/NO?	Source and Document Dates?	Drawing / Document References
'Working Drawings'	Yes	No	MGL Architects, August 2013. Block Management UK. 29.09.2020.	2927.WD.00 to 07, 09 to 12, 20, 21, 27, 28, 34, 41 to 47, 62 to 71.
'Working Drawings' Technical Specification / details	Yes	No	MGL Architects, August 2013. Block Management UK. 29.09.2020.	2927.WD.00 to 07, 09 to 12, 20, 21, 27, 28, 34, 41 to 47, 62 to 71.
Fire Strategy Drawings	Yes	No	MGL Architects, August 2013. Block Management UK. 29.09.2020.	2927.WD.10 to 12.3
Fire Risk Assessment	Yes	No	Source Fire Risk Management 18.03.2019	RB-Q86LY8
Operations & Maintenance Manuals (O&M)	No	No	N/A	N/A
Compartmentation Plan	Yes	No	MGL Architects, August 2013. Block Management UK. 29.09.2020.	2927.WD.10 to 12.3
Fire Alarm & Detection System	Yes	No	MGL Architects, August 2013. Block Management UK. 29.09.2020.	2927.WD.10 to 12.3 Annotated on working drawings.

Documentary Evidence	Provided by Client YES/NO?	Available from alternative Source YES/NO?	Source and Document Dates?	Drawing / Document References
Smoke Control Systems	Yes		MGL Architects, August 2013. Block Management UK. 29.09.2020.	2927.WD.10 to 12.3 Annotated on working drawings.
AWSS	N/A	N/A	N/A	N/A
Wet/Dry Riser	Yes		MGL Architects, August 2013. Block Management UK. 29.09.2020.	2927.WD.10 to 12.3 Annotated on working drawings.
Cladding System Technical Specification/ Design	Yes	No	MGL Architects, August 2013. Kingspan Benchmark Sandberg Block Management UK. 29.09.2020.	Cladding details - 2014.09.16 - Detail 43 and 46 Trespa Product Data Sheet. May 2013. Cladding Investigation Report. 63594/X/01.

2.0 DESCRIPTION OF PROPERTY

- 2.1.1 Spectrum Building, 22 Freshwater Road, Dagenham, RM8 1EH is a detached, mixed use building located within the London Borough of Barking and Dagenham.
- 2.1.2 The existing former office building has been extended upwards and converted to provide commercial spaces at basement and ground floor levels with 60 individual residential apartments formed between first and sixth floor levels. Plant and services are contained within the basement level and a communal roof terrace is provided to the top of the building.
- 2.1.3 The building is provided with two stair cores and two passenger lifts. Stair one and both lift cores, one of which is a fire fighting lift is located to the east elevation with stair two being located to the west elevation. The premise benefits from a Grade A LD2 fire alarm system, dry rising main, smoke venting provisions at the head of the stair cores and communal residential corridors and protected stair cores.
- 2.1.4 The fire risk assessment confirms that the building operates a 'full evacuation' procedure. (Source Fire Risk Management, RB-Q86LY8, 18.03.2019).



2.2 Determining Building Height

2.2.1 For the purposes of this report the method outlined in diagram D6 of the building regulations has been used to determination approximate building height.

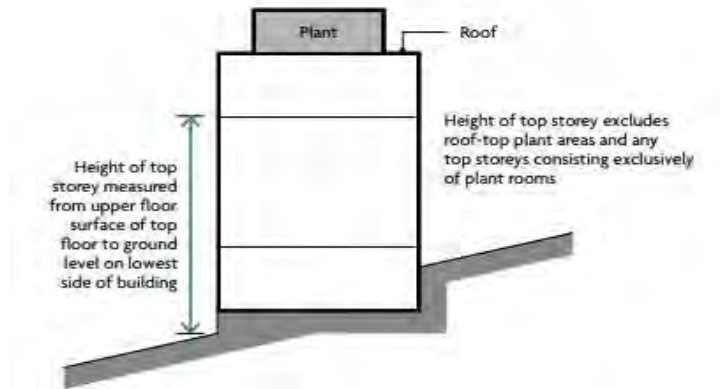


Figure 1 – Diagram D6 Approved Document B - Height of top storey in building.

2.2.2 The Finished Floor Level (FFL) of the uppermost storey has been calculated as being **19.7 metres** above ground level.

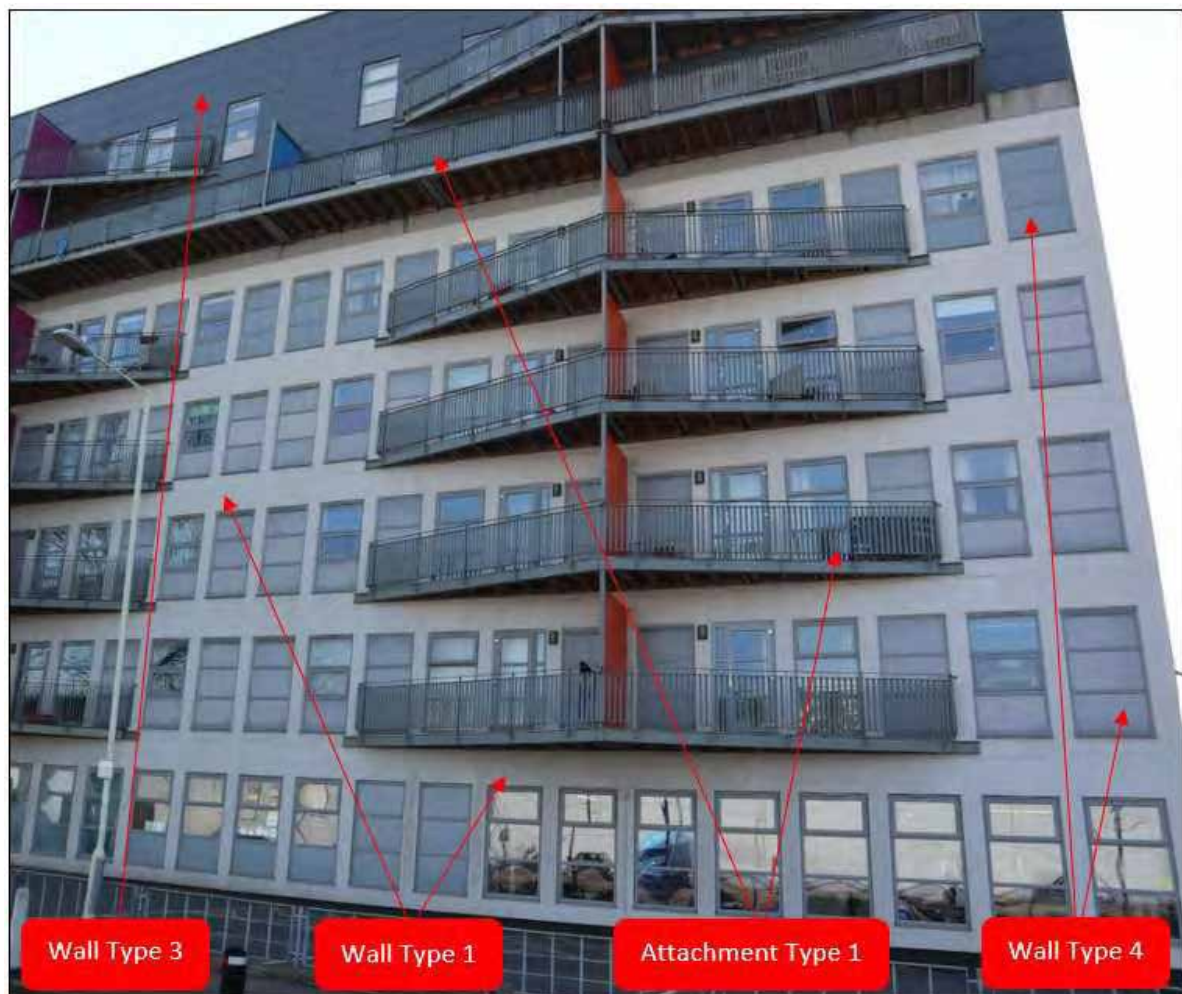
2.3 Basis of Fire Safety Design

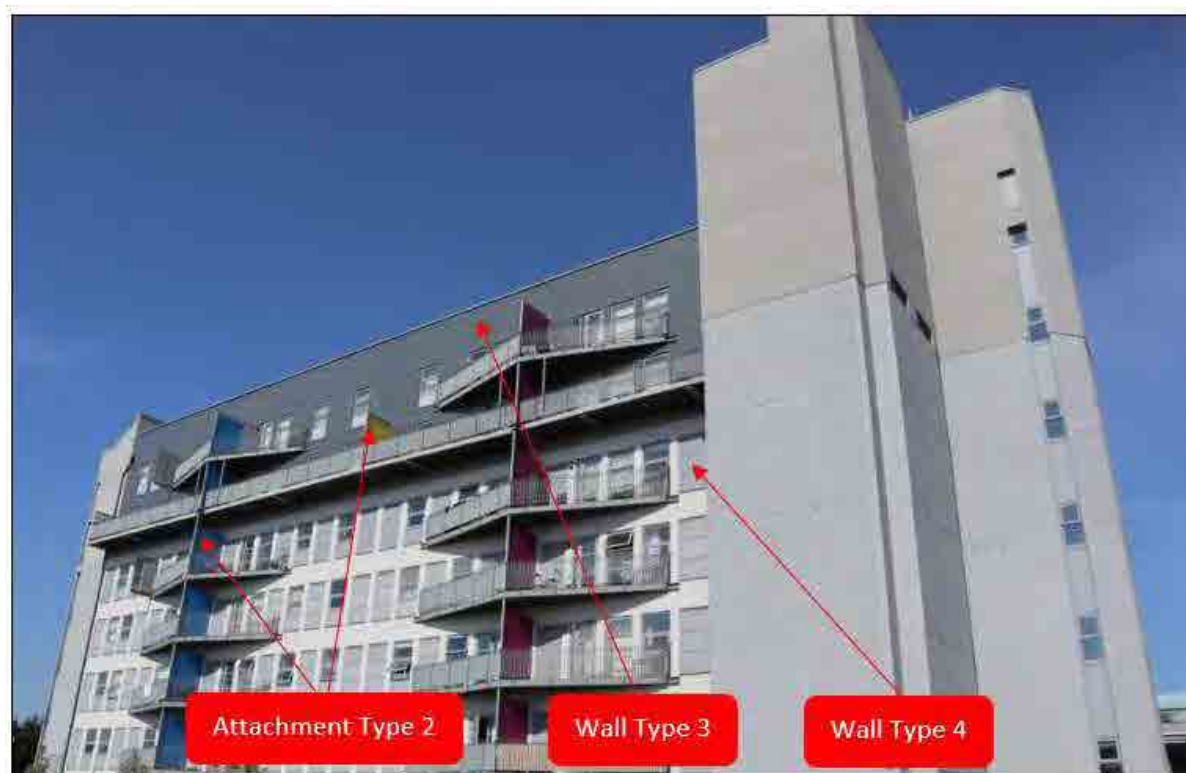
Basis of Fire Safety Design Provided?	Approved Document B	BS9991	BS9999	BS 7974
Yes	X			

Please Note: Where there is no clear evidence of the basis of design it has been assumed that the building has been design in accordance with Approved Document B, appropriate to date of construction (where known).

3.0 DETERMINATION OF EXTERNAL FAÇADE AND ADEQUACY

- 3.1 The following observations/statements are based upon a visual inspection, sampling survey, intrusive investigation and data/information made available or obtained through publicly available databases.
- 3.2 The statements detailed below as to the facade composition should only be considered to be indicative and may be used in conjunction with more wholistic assessments fire safety risk assessments which taken into account building construction, design and fire safety measures.
- 3.3 The following wall types have been established based on the intrusive survey carried out on 24th September 2020. The full and detailed survey report is provided in Appendix A.





Wall Type 1 – Solid Concrete

#id	Material (External Inwards)	Thickness	Combustibility	Reference
1	Solid Concrete (Working drawing 2927.WD.34 indicates a thickness of 300mm)	300mm	A1	2000/147/EC
2	DPM (Assumed based on working drawing 2927.WD.34)	< 1mm	Unknown	N/A
3	Timber Batten (Assumed based on working drawing 2927.WD.34)	25mm	<i>Untreated timber is likely to fall within Euroclass Classification D*</i>	N/A
4	Thermal Insulation (Celotex PL4000) (polyisocyanurate (PIR)) laminated to; Plasterboard (Assumed based on working drawing 2927.WD.34)	60mm 12.5mm	Euroclass B-s1, d0	Celotex PL4000 Product Data Sheet

Wall Type 2 - Render

#id	Material (External Inwards)	Thickness	Combustibility	Reference
1	Render	15mm	Unknown	N/A
2	Hollow Concrete Masonry Blockwork (Assumed based on working drawing 2927.WD.44)	215mm	A1	2000/147/EC
3	Timber Batten (Assumed based on working drawing 2927.WD.44)	25mm	<i>Untreated timber is likely to fall within Euroclass Classification D*</i>	N/A
4	Fireline Plasterboard (Assumed based on working drawing 2927.WD.44)	15mm	Unknown	N/A

Wall Type 3 – High Pressure Laminate Panel

#id	Material (External Inwards)	Thickness	Combustibility	Reference
1	High Pressure Laminate Panel (Trespa Meteon) (Compressed wood fibres, acrylic coating)	8mm	Combustible and flammable Class D, s2, d0	C9054 4/1, C9056 6/1, C9057 7/1, C9058 8/1, Kingspan Benchmark. Trespa Product Data Sheet. May 2013.
2	Clear Cavity (Appearing to be formed with timber battens)	50mm	N/A	N/A
3	Breathable Membrane (Polypropylene)	< 1mm	Combustible and flammable. Dripped flaming molten polymer.	C9055 4/2
4	Timber Oriented Strand Board (Wood cellulose)	15mm	Combustible and flammable. <i>Untreated timber is likely to fall within Euroclass Classification D*</i>	C9059 8/2, C9061 10/1
5	Brown Insulation Wool (Soda-lime-silicate, glass wool) (Fixed between timber frame – see id 6)	150mm	Not combustible or flammable	C9060 8/3, C9062 10/2
6	Timber Framing (Assumed based on working drawing 2927.WD.43)	140mm	<i>Untreated timber is likely to fall within Euroclass Classification D*</i>	N/A
7	Vapour Control Layer (Assumed based on working drawing 2927.WD.43)	< 1mm	N/A	N/A
8	Timber Batten (Assumed based on working drawing 2927.WD.43)	50mm	<i>Untreated timber is likely to fall within Euroclass Classification D*</i>	N/A
9	Fireline Plasterboard (Assumed based on working drawing 2927.WD.43)	15mm x 2 layers	Unknown	N/A

Wall Type 4 – Spandrel / Window Insulated Panel

#id	Material (External Inwards)	Thickness	Combustibility	Reference
1	Plastic Coating (Polyvinyl Chloride PVC)	< 1mm	Combustible and flammable	C9063 19/1, C9065 21/1
2	Fibreboard (Cellulose / wood fibres)	5mm	Combustible and flammable	C9063 19/1, C9066 21/2
3	White Foam Insulation (Polystyrene)	30mm	Combustible and flammable. Dripped flaming molten polymer. <i>Polystyrene products are likely to fall within Euroclass Classification D to F*</i>	C9064 20/1, C9067 21/3
4	Inner Face of Panel (Assumed plastic coating on fibreboard as id 1 and 2)	Unknown	Combustible and flammable (Assumed based on id 1 and 2)	N/A

In addition to the various wall types, the following attachments to the façade were noted:

Attachment Type 1 - Balconies

#id	Attachment	Construction	Combustibility	Reference
1	Balconies	Steel Structure and Balustrading	A1	2000/147/EC
		Timber Decking	<i>Untreated timber is likely to fall within Euroclass Classification D*</i>	N/A

Attachment Type 2 – Privacy Screens

#id	Attachment	Construction	Combustibility	Reference
1	Privacy Screens to Balconies	High Pressure Laminate Panel (Compressed wood fibres, acrylic coating)	Combustible and flammable.	C9056 6/1

** The brand / type / specification of the product 'as installed' was not established, therefore, any associated technical literature was not reviewed. The classification range is included to aid understanding of the risks posed by the product / materials.*

3.4 Materials Testing

3.4.1 Laboratory Details

Sandberg was one of the first construction materials related laboratories to receive UKAS testing accreditation in May 1985 (by the UKAS fore-runner NATLAS). Its laboratories have UKAS testing accreditation for a wide range of sampling and testing services both in the laboratory and on-site. Sandberg is also a corporate member of the Institute of Expert Witnesses.

Sandberg Consulting Engineers, Sandberg LLP, 5 Carpenters Place, London, SW4 7TD.

3.4.2 Laboratory Analysis

Following the analysis of the samples as referred to in the Survey Report the samples were tested and the following results obtained;

Sample No	Description	Laboratory Analysis	Determination of Combustibility	Presence of Fire Retardant
C9053 1/1, C9054 4/1, C9056 6/1, C9057 7/1, C9058 8/1	High Pressure Laminate	Compressed wood fibres, acrylic coating	Combustible and flammable	N/A
C9055 4/2	Breathable Membrane	Polypropylene	Combustible and flammable. Dripped flaming molten polymer.	N/A
C9059 8/2, C9061 10/1	Timber Oriented Strand Board	Wood / Cellulose	Combustible and flammable	N/A
C9060 8/3, C9062 10/2	Brown Insulation Wool	Soda-lime-silicate, glass wool	Not combustible or flammable	N/A
C9063 19/1, C9066 21/2	Fibre Board	Wood / Cellulose	Combustible and flammable	N/A
C9063 19/1, C9065 21/1	Plastic Coating	PVC	Combustible and flammable	N/A
C9064 20/1, C9067 21/3	White Foam Insulation	Polystyrene	Combustible and flammable. Dripped flaming molten polymer.	Not Present

3.5 BR135 Testing and Fire Performance Standards

- 3.5.1 The materials utilised within the existing construction arrangements (wall type 1 (excluding the internal insulated lining)) are representative of those primarily used within traditional construction methods, therefore a BR135 assessment would not be appropriate for these materials and arrangements
- 3.5.2 It has not been possible to fully clarify whether any comparable BS 8414 testing achieving BR135 classification exists for the newer arrangement featuring the high pressure laminate panels (wall type 3).
- 3.5.3 Copies of the Trespa product data sheet and details of a previous cladding investigation undertaken in 2018 by Sandberg (63594/X/01) were provided to Ark Sustainability Ltd for reference along with additional O&M documentation. Following visual inspection, sampling and investigation, Sandberg confirmed that an 8mm Trespa panel system had been installed at fifth and sixth floor levels of the Spectrum Building.

The technical literature associated with the Trespa façade panels clarifies that two types of panel were available:

- Trespa Meteor panels having a reaction to fire classification of Class D,s2,d0.
- Trespa Fire Retardant panels having a reaction to fire classification of Class B,s2,d0.

The Sandberg Report (63594/X/01) clarifies; *‘without a reference material, it is not possible to comment on whether the performance of the cladding panels indicates the presence of any fire retardant coating’.*

Both Trespa panels were tested in accordance with EN 13501-1:2002 Fire Classification of Construction Products and Building Elements, EN 438-7 and ISO 4586 and achieved ratings of Class D, s2, d0 and B, s2, d0 respectively. On this basis, it is clear that the panels fall short of the requirements outlined within the MHCLG advice note (January 2020) paragraph 3.10:

‘The Expert Panel’s view is that the clearest way to demonstrate that materials in the external walls system do not present a risk of fire spread is to confirm that they are made using materials that achieve Class A2-s3,d2 or better, previously referred to as limited combustibility.’

However, Paragraph 5.10 of the MHCLG advice note (January 2020) clarifies further:

‘The Expert Panel’s advice is that an external wall system using Class C-s3,d2 or D-s3,d2 HPL panels on residential buildings of 18m or more to the height of the top occupied storey would not have met the functional requirements of the Building Regulations, or associated advice. Any such system presents a notable

fire hazard on these buildings. Where these materials are identified, building owners should take immediate measures to remediate their system’.

It is therefore recommended that further laboratory testing be undertaken to establish the specification and reaction to fire classification of the Trespa panel system installed on the upper storeys at the Spectrum Building. Having an understanding of the panels installed will allow for greater certainty when assessing risks and determining whether remediation works are appropriate.

- 3.5.4 It was noted that when reviewing the Trespa panel fixing systems, whilst it was shown being fixed onto timber batten framing, the ‘as built’ arrangement on site (timber frame construction) was not depicted. It is therefore not possible to establish whether the system has been installed to the manufacturers direction and specification.

3.6 Cavity Barriers

- 3.6.1 During the intrusive investigation undertaken on 24th September 2020, it was established that there was a 50mm clear cavity formed by timber batten framing behind the high pressure laminate panels (wall type 3). This construction arrangement would appear to be consistent with the working drawing (2927.WD.46) which shows cavity barrier arrangements being formed with timber battens fixed at party wall / floor locations along with ‘TCB Rockwool’ cavity barriers installed at party wall lines behind the Timber Oriented Strand Board. Due to the limited nature of the intrusive survey and the difficulty in establishing party wall lines externally, it could not be confirmed whether suitable timber batten and ‘TCB Rockwool’ cavity barriers had been installed as shown in the working drawings.
- 3.6.2 There is also not sufficient evidence to determine both the presence and adequacy of cavity barrier arrangements across the whole of the building. Inadequate / incorrectly installed / missing cavity barriers to compartment lines is considered to significantly increase the risk of unseen fire spread from compartment to compartment, potentially affecting escape routes and evacuation strategies across the building.
- 3.6.3 Due to the solid nature of the concrete walls (wall type 1) and rendered walls (wall type 2), cavity barrier installations would not be applicable for this construction arrangement.

3.7 Building Regulations

- 3.7.1 Fire resistance - An external wall may need fire resistance to meet the requirements of the applicable Building Regulations (Section 3 (Means of escape – flats), Section 6 (Load-bearing elements of structures – flats) or Section 11 (Resisting fire spread from one building to another). This should be considered as part of any fire risk assessment for the building as is not addressed within this report.

- 3.7.2 Non-combustible materials in external walls of tall buildings - Regulation 7(1) of the Building Regulations requires that materials used in building work are appropriate for the circumstances in which they are used. Regulations 7(2) set requirements in respect of external walls and specified attachments in relevant building. Regulation 7(2) applies to any building with a storey of at least 18m above ground level as measured using the method outlined in diagram D6 and which contains one or more dwellings; an institution; or a room for residential purposes (excluding any room in a hostel, hotel, or a boarding house). It requires that all materials which become part of an external wall or specified attachment achieve class A2-s1, d0 or class A1, other than the exemption described in regulation 7(3).
- 3.7.3 Combustibility of external walls - Buildings to which regulation 7(2) of the Building Regulations apply require that all materials used within the external wall construction should achieve class A2-s1, d0 or class A1. This does not apply to the following;
- cavity trays when used between two leaves of masonry;
 - any part of a roof (other than any part of a roof which falls within paragraph (iv) of regulation 2(6)) if that part is connected to an external wall;
 - door frames and doors;
 - electrical installations;
 - insulation and water proofing materials used below ground level;
 - intumescent and fire stopping materials where the inclusion of the materials is necessary to meet the requirements of Part B of Schedule 1;
 - membranes;
 - seals, gaskets, fixings, sealants and backer rods;
 - thermal break materials where the inclusion of the materials is necessary to meet the thermal bridging requirements of Part L of Schedule 1; or
 - window frames and glass.
- 3.7.4 Please note: for the purposes of the EWS1 Form - the requirement for meeting 'limited Combustibility' is different. The definition of material of limited combustibility (BS9991:2015) is as follows; a non-combustible material; or any material of density 300 kg/m³ or more which, when tested in accordance with BS 476-11, does not flame and the rise in temperature on the furnace thermocouple is not more than 20 °C; or any material with a non-combustible core of 8 mm thick or more, having combustible facings (on one or both sides) not more than 0.5 mm thick; or a material classified as class A2-s3, d2 in accordance with BS EN 13501-1, when tested in accordance with BS EN ISO 1182 or BS EN ISO 1716 and BS EN 13823.
- 3.7.5 Glass Balustrading - Glass in balustrades must meet the functional requirements of Part K of the building regulations. Generally, this may mean that glazing within balustrades is either laminated with a PVB or SGP interlayer. Laminated glass used balconies in buildings for which regulation 7(2) of the building regulations applies would not meet the fire classification requirements by virtue of the PVB or SGP layer within layers of glass float.

3.8 Observations and Comments Regarding Building Regulations

3.8.1 Under Regulation 7(4) of the Building Regulations 2010, materials which become part of an external wall, or specified attachment, of a 'relevant building' are to be of European Classification A2-s1, d0 or A1, classified in accordance with BS EN 13501-1:2007+A1:2009 entitled "Fire classification of construction products and building elements: Classification using test data from reaction to fire tests". Based on the design and height of the Spectrum Building, 22 Freshwater Road, Dagenham, RM8 1EH, it would fall within the requirements and therefore be classified as a relevant building.

3.8.2 Following the intrusive investigation survey it has been established that:

- It is currently unclear whether the high pressure laminate panels installed to the upper additions of floor levels 5 and 6 (wall type 3) meets with the guidance of the MHCLG advice note (January 2020).
- The laminated insulating material / plasterboard assumed to have been installed to the inner face of the existing concrete structure (wall type 1), Polyisocyanurate (PIR) is considered to have a reaction for fire classification of Euroclass B-s1, d0 (Celotex PL4000 Product Data Sheet).
- The construction arrangements / components utilised for the upper additions of floor levels 5 and 6 (wall type 3 - timber frame construction) are considered not to meet the requirements of the MHCLG advice note (January 2020) as they would appear not to achieve a minimum rating of 'Class A2-s3, d2 or better'.
- The construction arrangements / components utilised for the upper additions of floor levels 5 and 6 (wall type 3 - timber frame construction) are considered not to meet the requirements of the Building Regulations 2010 (Regulation 7(4)) as they would appear not to achieve a minimum rating of Class A2-s1, d0 or A1.
- The composite panels utilised within the spandrel / window insulated panels are considered to be both combustible and flammable (Plastic Coating (Polyvinyl Chloride PVC), Fibreboard (Cellulose / wood fibres) and White Foam Insulation (Polystyrene)) with the Polystyrene core also producing droplets of flaming molten polymer. As it is assumed that the composite panels feature the same composition both externally and internally (to be verified), the risks associated with accidental ignition and fire spread across the facade are increased.
- The timber decking (attachment type 1) and high pressure laminate privacy panels (attachment type 2) installed across the facades are considered to be both combustible and flammable, representing an increased risk of fire spread across the building.

4.0 EWS1 FORM DETERMINATION

4.1 General

- 4.1.1 This provision of an EWS1 form is intended for recording using a consistent manner and approach what assessments has been carried out for the external wall construction of a particular residential apartment buildings where the highest floor is 18m or more above ground level or where specific concerns exist.
- 4.1.2 The notes accompanying the EWS1 form state clearly that it should not be used for other purposes.
- 4.1.3 The EWS1 form is to be completed by a competent person with the levels of expertise as described in Notes 2 and 3 on the form.
- 4.1.4 This review is for the sole and exclusive use of the client organisation named on the form. No responsibility is accepted to any third party for the whole or any part if its contents. For the avoidance of doubt, the term 'third party' includes (but is not limited to): any lender who may see the review during the process through which they come to make a loan secured on any part of the respective property; and any prospective purchaser who may see the review during the process through which they come to purchase an interest in any part of the respective property.
- 4.1.5 The investigation must include evidence of the fire performance of the actual materials installed. This includes either a physical inspection by the signatory to this form, or inspection of photographic or similar information gathered by a 3rd party (subject to the signatory having sufficient confidence in that 3rd party).
- 4.1.6 It would also include the standards of construction of key fire safety installations such as cavity barriers. Given the nature of external walls this would typically involve investigations in a limited number of locations as detailed above. The notes to the form make it clear that a review of design drawings may assist but on their own would not be sufficient. Where the wall construction includes multiple wall types, the investigation should include each type.
- 4.1.7 Attached to the EWS1 form is a flowchart that is to be used to determine what option of form can be signed.

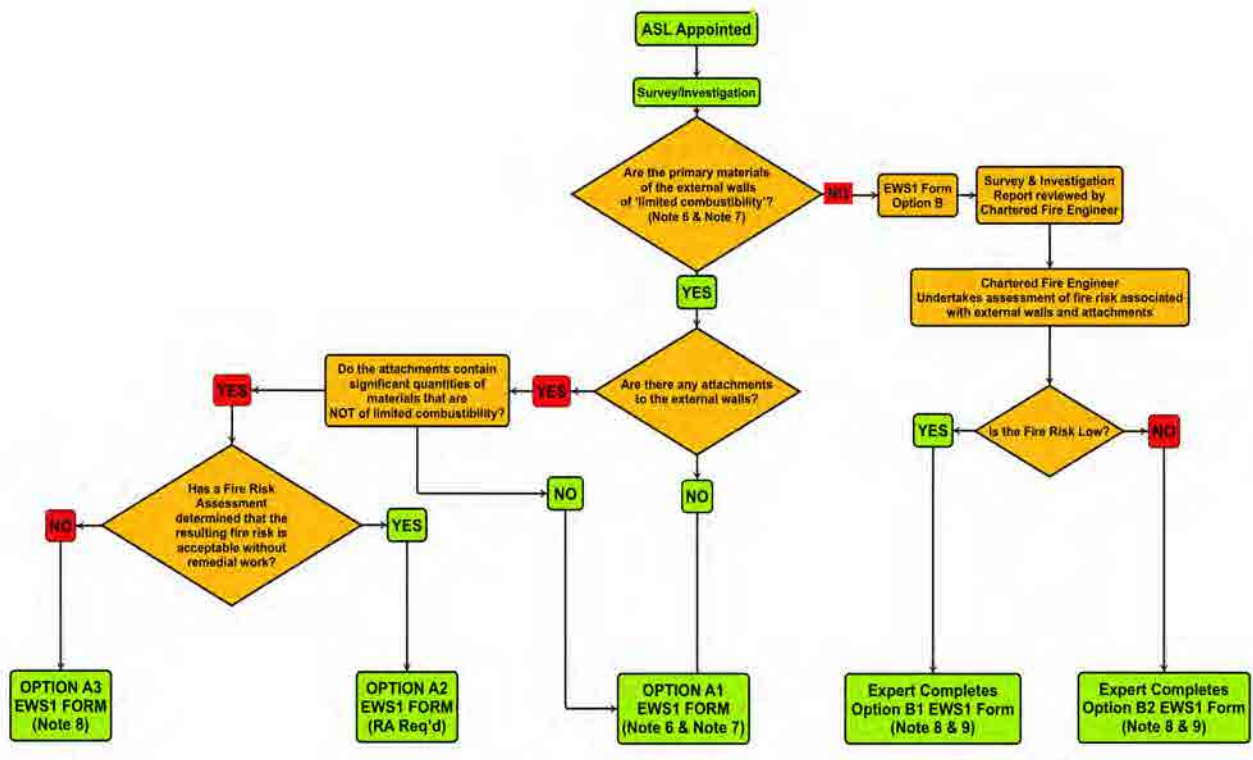


Figure – EWS1 Form Flowchart (ASL, 2020)

EWS1 Form Determination

4.2 The EWS1 determination for Spectrum Building, 22 Freshwater Road, Dagenham, RM8 1EH is considered as follows:

The overall EWS1 Form Determination reached by the appointed Chartered Fire Engineer is that of **B2**. This has been determined due to:

- The primary materials of the external walls are considered not to be of limited combustibility as defined within BS 9991:2015 as :
 - It is currently unclear whether the high pressure laminate panels installed to the upper additions of floor levels 5 and 6 (wall type 3) meets with the guidance of the MHCLG advice note (January 2020).
 - The construction arrangements / components utilised for the upper additions of floor levels 5 and 6 (wall type 3 - timber frame construction) are considered not to meet the requirements of the MHCLG advice note (January 2020) as they would appear not to achieve a minimum rating of 'Class A2-s3,d2 or better'.

- The construction arrangements / components utilised for the upper additions of floor levels 5 and 6 (wall type 3 - timber frame construction) are considered not to meet the requirements of the Building Regulations 2010 (Regulation 7(4)) as they would appear not to achieve a minimum rating of Class A2-s1, d0 or A1.
- The composite panels utilised within the spandrel / window insulated panels are considered to be both combustible and flammable (Plastic Coating (Polyvinyl Chloride PVC), Fibreboard (Cellulose / wood fibres) and White Foam Insulation (Polystyrene)) with the Polystyrene core also producing droplets of flaming molten polymer. As it is assumed that the composite panels feature the same composition both externally and internally (to be verified), the risks associated with accidental ignition and fire spread across the facade are increased.
- The timber decking (attachment type 1) and high pressure laminate privacy panels (attachment type 2) installed across the facades are considered to be both combustible and flammable, representing an increased risk of fire spread across the building.
- Due to the potentially combustible and flammable materials across the buildings facades, the fire risk cannot be considered as 'low'.

5.0 REMEDIATION WORK

5.1 Recommendations for Remediation Work

This section is intended to provide a brief overview of what might be required to the external façade / materials to enable compliance with current regulations, guidance and standards and how this might impact upon the determination for the EWS1 Form.

5.2 Remediation Recommendations

The following remediation measures are recommended to assist in mitigating the fire risks to an acceptable level:

5.2.1 Short Term

- Clear dialogue should be established between the responsible person and the relevant fire and rescue service to ensure all parties are aware of the current building arrangements including any risks associated with the combustible High Pressure Laminate system, the timber frame constructed fifth and sixth floor levels, spandrel panels and timber decking to balconies.
- Clear dialogue should be established between the responsible person and the current occupants of all apartments to assist in minimising the risks associated with external fires, including:
 - All external ignition sources (smoking / BBQ's) should be removed from balcony areas.
- The current fire risk assessment should be reviewed and updated where necessary following the findings evidenced in this report. This review should include consideration of the current evacuation strategy (which the current assessment fails to highlight) to establish its suitability. If the current strategy is found to be inappropriate with regards to the current risk, the National Fire Chiefs Council (NFCC) guidance should be considered.
- Confirm that the junction between the existing external wall and the existing structural floor is adequate to ensure horizontal compartmentation.
- The fire risk from the basement level and ground floor commercial and retail occupancies should be assessed, with particular attention of any occupancies with cooking / frying facilities.

5.2.2 Medium Term

- The following medium-term actions focus on the fifth and sixth floor levels that incorporate the High Pressure Laminate / timber framing systems (wall type 3), where the greatest risk of external fire spread exists. These actions are aiming to deliver a proportional response to the risk of external fire spread.

The options available are as follows:

1. If evidence can be provided that the external wall / cladding system (wall type 3) used on the Spectrum Building has been subject to a BR135 classification, a detailed survey must be undertaken to identify the as built construction and ensure the integrity of the external wall system from an external fire spread perspective is as per the classified system (including cavity barriers).
 2. Undertake a holistic fire engineering analysis to determine the additional fire safety measures necessary to ensure an adequate level of fire safety accounting for the High Pressure Laminate / timber framing systems (wall type 3) at fifth and sixth floor levels. This assessment should be undertaken in consultation with the fire and rescue service, building insurer and the residents of the Spectrum Building.
 3. Remove the external wall / cladding system and replace with materials that achieve Class A2-s3,d2 or better, to demonstrate that the external wall / cladding system meets the guidance within the MHCLG advice note (January 2020).
- Irrespective of the option selected above, the spandrel panels (wall type 4), timber decking to balconies (attachment type 1) and High Pressure Laminate privacy screens (attachment type 2) should be replaced with materials that meets the MHCLG advice note (January 2020).

5.2.3 Long Term

- Given that the Building Safety Bill is highly likely to be legislated over the next two to three years, it is recommended that the actions undertaken should ensure that the Spectrum Building will be in a position to demonstrate structural and fire safety standards against the new legislation and regulations including:
 - Development of a Safety Case.
 - Collection and presentation of the necessary building information in a digital format.

Please Note: This is not an exhaustive list, nor is it intended to act as a design guide for compliance nor to provide legal advice in relation to any applicable British Standards, Guidance, Regulatory requirements or statutory obligations.

Remediation Notes

Limitations - The following is intended only as a guide to the legal duties / obligations / requirements which should be considered when undertaking remediation work on buildings. It is not intended as legal advice and is not a comprehensive list of duties/obligations and requirements. If any doubt exists as to these requirements, independent legal advice should be sought.

Legal Considerations - Where remediation work is undertaken to improve the fire safety of a building, it may involve the removal/replacement of both a 'thermal element' of the building and materials used within the facade. This work may therefore fall within the scope of "notifiable works" as defined within the Building Regulations 2010.

If the works are 'notifiable' this means that before undertaking the work, responsible persons must submit a full plans application detailing the work they are proposing to carry out to a 'Building Control Body'. As part of this process responsible persons will be required to pay a fee (fees determined by the body to which you apply) and they are required to undertake a statutory consultation with the relevant Fire Safety Enforcement Authority regarding these plans (usually the local Fire and Rescue Service).

The Regulatory Reform (Fire Safety) Order (2005) applies to premises which are defined as any place and in particular includes any workplace. It does not apply to domestic premises, except for a provision allowing the enforcing authority to prohibit the use of a property in certain circumstances. The Court of Appeal has upheld that the common parts of residential premises are considered non-domestic premises because they are available for use by others as a place of work. The Chief Fire Officers' Association (CFOA) states that: 'For the purposes of clarity, the front doors to flats are considered to be a common protective measure, typically under the control of the occupier as an article 5(4) duty holder, because an early failure of the door can pose a serious risk to the safety of other relevant persons on the premises'. The Order applies to all non-domestic premises, which includes the common parts of apartment buildings and both the common and shared parts of Houses in Multiple Occupation.

The Fire Safety Order imposes numerous legal duties which the responsible person must perform. There is a general duty under the Fire Safety Order to take such fire precautions as may be reasonably required to ensure that premises are safe for the occupants and those in the immediate vicinity and a general duty to carry out a fire risk assessment.

Under Article 15, the responsible person is under a duty to provide appropriate procedures to be followed in the event of serious and imminent danger from fire to relevant persons. By virtue of the Fire Safety Order, the Responsible Person (see definitions) is required to ensure a fire risk assessment is carried out of their premises. This must be a suitable and sufficient assessment of the hazards and risks to which relevant persons are exposed for the purpose of identifying the general fire precautions that need to be taken to comply with the requirements under the Order.

Article 9 Obligations - The responsible person must make a suitable and sufficient assessment of the risks to which relevant persons are exposed for the purpose of identifying the measures they need to take to comply with the requirements and prohibitions imposed on them by the Order. The nature of the assessment will vary according to the type and use of the premises, the persons who use or may use the premises, and the risks associated with that use. A risk assessment should be reviewed regularly by the responsible person to keep it up to date, valid and to reflect any significant changes that may have taken place.

It is recommended that following this issuance of this report and the EWS1 Form (where applicable) that the responsible person ensure that the Risk Assessment for the building is reviewed and updated where appropriate and necessary.

New Fire Safety Bill - Main elements of the Fire Safety Bill include a clarification that the scope of the Regulatory Reform (Fire Safety) Order 2005 to include the external walls of the building (including cladding).

Building Regulation Applications – Under Regulation 3 of the Building Regulations, “Building Work” which would attract a requirement to provide an application, means;

- (a) the erection or extension of a building;
- (b) the provision or extension of a controlled service or fitting in or in connection with a building;
- (c) the material alteration of a building, or a controlled service or fitting, as mentioned in paragraph (2);
- (d) work required by regulation 6 (requirements relating to material change of use);
- (e) the insertion of insulating material into the cavity wall of a building;
- (f) work involving the underpinning of a building;
- (g) work required by regulation 22 (requirements relating to a change of energy status);
- (h) work required by regulation 23 (requirements relating to thermal elements);
- (i) work required by regulation 28 (consequential improvements to energy performance).
- (2) An alteration is material for the purposes of these Regulations if the work, or any part of it, would at any stage result—
 - (a) in a building or controlled service or fitting not complying with a relevant requirement where previously it did; or
 - (b) in a building or controlled service or fitting which before the work commenced did not comply with a relevant requirement, being more unsatisfactory in relation to such a requirement.
- (3) In paragraph (2) “relevant requirement” means any of the following applicable requirements of Schedule 1, namely—
 - Part A (structure)
 - paragraph B1 (means of warning and escape)
 - paragraph B3 (internal fire spread—structure)
 - paragraph B4 (external fire spread)
 - paragraph B5 (access and facilities for the fire service)

- Part M (access to and use of buildings).

Renovation/Replacement of thermal elements - Where renovating or replacing thermal elements to a building regulation 23 of Part L of the building Regulations will apply where;

(1) Where the renovation of an individual thermal element—

(a) constitutes a major renovation; or

(b) amounts to the renovation of more than 50% of the element's surface area; the renovation must be carried out so as to ensure that the whole of the element complies with paragraph L1(a)(i) of Schedule 1, in so far as that is technically, functionally and economically feasible.

(2) Where the whole or any part of an individual element is proposed to be replaced and the replacement—

(a) constitutes a major renovation; or

(b) (in the case of part replacement) amounts to the replacement of more than 50% of the thermal element's surface area; the whole of the thermal element must be replaced so as to ensure that it complies with paragraph L1(a)(i) of Schedule 1, in so far as that is technically, functionally and economically feasible.

Responsible Person - The 'responsible person' who has a number of legal duties under the Regulatory Reform (Fire Safety) Order 2005 is defined in Article 3 as;

(a) in relation to a workplace, the employer, if the workplace is to any extent under his control;

(b) in relation to any premises not falling within paragraph (a)—

(i) the person who has control of the premises (as occupier or otherwise) in connection with the carrying on by him of a trade, business or other undertaking (for profit or not); or

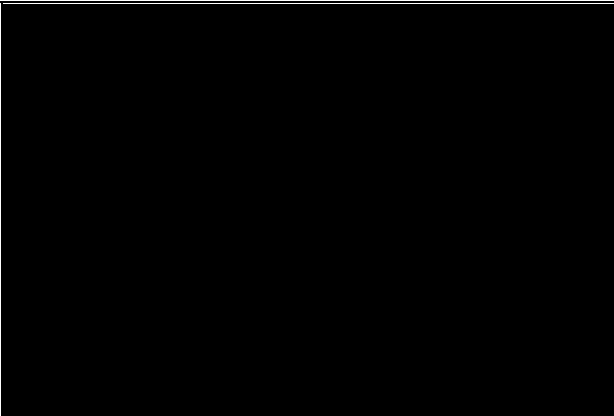
(ii) the owner, where the person in control of the premises does not have control in connection with the carrying on by that person of a trade, business or other undertaking.

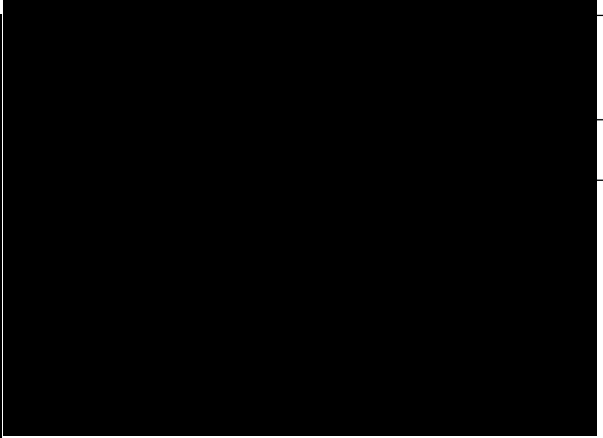
Typically, the responsible person is the freeholder or landlord but may be a residential management company.

6.0 CONCLUSIONS

Extent of Facade Survey and Investigation - General Limitations

Ark have provided this report based upon the information gained through documents sighted and provided by the client, during discussions with Client's representatives and site visits/investigations. Although Ark's Consultants are experienced and trained to the highest professional standards, they have no powers under any statutory order to demand entry and the production of documents or information. The advice in the report is therefore given in good faith based upon the evidence seen, the information given and the points discussed at the time of the visits. No guarantee can be given that during any subsequent visit by inspectors with statutory powers other non-compliance may not be found. Ark will not accept responsibility for any loss arising from such a discovery. Whilst every care is taken to interpret the Acts, Regulations and Approved Codes of Practice, these can only be authoritatively interpreted by Courts of Law. As part of this consultancy project, Ark may have had access to client information which is of a confidential or sensitive nature. Such information will be treated in the strictest confidence by Ark and will not be communicated or otherwise transmitted to a third party unless expressly authorised to do so by the Client.

Signed By:	
Name:	
Professional Memberships and Registrations:	
Dated:	21.12.2020

Reviewed By:	
Name:	
Professional Memberships and Registrations:	
Dated:	23.12.2020

APPENDICES

Appendix A – Intrusive Survey Report

Appendix B - Normative References

Appendix C - Chartered Fire Engineer MHCLG Advice Report

Appendix A – Intrusive Survey Report

Activity	External Façade Investigation and Survey (Intrusive)
Location	Spectrum, Dagenham RM8 1EH
Author	[REDACTED]
Date	24th September 2020
Project Reference	J000034
Document Type	Survey Record V1.71

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Survey Background

Ark Sustainability Ltd (Ark) has been instructed to undertake investigations of the external façade of the Spectrum building, Dagenham RM8 1EH to support meeting the requirements of the Ministry of Housing Communities and Local Government (MHCLG) current guidance regarding external façade and cladding systems.

Following the publication of the Building (Amendment) Regulations 2018 (S.I. 2018/1230) banning certain cladding materials, there is a clear need for owners to determine the suitability and sufficiency of the materials used in the external façade construction and importantly whether or not the external facades are meeting the recommendations contained within the said advice notes and guidance.

Survey Objectives

- 1.To recover samples from the facade which will then be sent for testing at a UKAS laboratory to determine their composition as per RAMS.
- 2.To conduct further intrusive investigation using a video borescope and gather photographic and contemporaneous notes
- 3.To gather sufficient information to determine the composition of the facade which will then be used along with the laboratory test results to ascertain the correct category of EWS1 to issue.

Survey Scope

This record specifically relates to the external cladding system and its component parts and is no way intended to provide a determination of the 'as built' structure of the building under review. However, where appropriate this may be commented upon.

Survey Limitations

Please use this section to highlight any physical limitations to the survey which occurred and why these limitations existed.

It was only possible to access the front elevations at all levels and the rear elevation at ground level as no vehicular rear access is possible at the site.

Personnel Details:

[REDACTED]

Observers:**Date of Survey:**

24th September 2020

Weather Conditions

Temperature: 14 degrees C

Light conditions: Bright

Humidity: Medium

Wind conditions: Moderate

Pre-start Checks

1. Obtain permission/license from Barking for the use of Lift Access Platform on Pavement and on the public roads where applicable.
2. Confirmation from The building management company that residents/leaseholders and any affected businesses will be advised of the survey work and the possibility of noise/disruption during the course of the investigation.
3. Review RAMS for proposed work.
4. Ensure MEWP Operator has appropriate license / approval to operate
5. Ensure MEWP operator has undertaken daily and other regular checks.
6. Ensure ladders (where appropriate) have been inspected
7. Ensure fall and arrest harnesses have been inspected and are serviceable.
8. Ensure access equipment protective barriers are available to protect pedestrians.
9. Check Building Contractor Site Rules and Procedures.
10. Ensure adequate and appropriate PPE is available.
11. Ensure that Sample location plan is available.
12. Ensure that appropriate equipment is available for sampling and removal of facade elements.

Sequence of Operations / Statement**ALL ELEVATIONS**


13. Please note any obvious existing physical damage to the external facade which was observed prior to the survey (include photographs and detail their location)
14. Undertake all pre start checks.
15. Establish Cordon and Safety Barriers in Pavement area.
16. Ensure MEWP is safe to use and competent operator on site and available.
17. Ensure access route for MEWP is safe and secured to prevent unauthorised access – check to ensure safety of all concerned.
18. VR operative to operate and provide access for Consultant to the joint areas to allow for inspection.
19. Undertake inspection of wall – joints (between party wall and ceiling, party wall and roof cladding, party wall and external wall, party wall and party wall).
20. PPE to be utilised.
21. Expose area of inspection.
22. Ark to complete inspection off Ladder/MEWP as above to determine construction and integrity of external façade, wall and fire stopping etc.
23. Remove and record and store sample evidence including recording sample sites upon survey map.
24. Place inspection covers in sample holes where appropriate.
25. Lower and remove MEWP access equipment and remove protective barriers.



26. Hand back area to client.


Observations of Areas of Existing Damage

The following table is used to record any observations regarding the external facade of the building prior to survey. Existing damage, deterioration and general observations regarding quality should be recorded where relevant in the table.


Location of Noted Existing Defect/Damage	Description/Image of Damage
No significant damage noted	


ELEVATION	EXAMPLE PHOTO
Front	


ELEVATION	EXAMPLE PHOTO
Rear	
Side Left	


ELEVATION	EXAMPLE PHOTO	
Side Right		
Other		

Survey Record


Sample No	Date/Time	X Axis	Y Axis	Datum Point	Photographs	Observations
1/1	24 th September 2020			1		8mm board on timber battens (1/1) 50mm void Breather membrane 10mm OSB board 150mm mineral wool


Sample No	Date/Time	X Axis	Y Axis	Datum Point	Photographs	Observations
						


Sample No	Date/Time	X Axis	Y Axis	Datum Point	Photographs	Observations
2 – no samples	24 th September 2020			2		Solid concrete


Sample No	Date/Time	X Axis	Y Axis	Datum Point	Photographs	Observations
3 – no samples	24 th September 2020			3		Solid concrete


Sample No	Date/Time	X Axis	Y Axis	Datum Point	Photographs	Observations
4/1	24 th September 2020			4		8mm board on timber battens (4/1) 50mm void Breather membrane (4/2) 10mm OSB board 150mm mineral wool


Sample No	Date/Time	X Axis	Y Axis	Datum Point	Photographs	Observations
						


Sample No	Date/Time	X Axis	Y Axis	Datum Point	Photographs	Observations
5 – no samples	24 th September 2020			5		Solid concrete


Sample No	Date/Time	X Axis	Y Axis	Datum Point	Photographs	Observations
6/1	24 th September 2020			6		9.5mm balcony privacy screen/partition board (6/1)

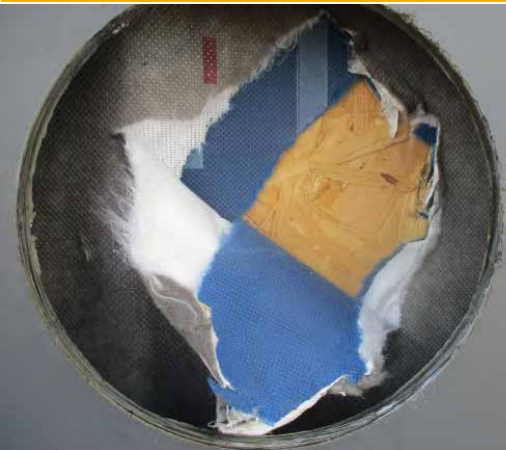
Sample No	Date/Time	X Axis	Y Axis	Datum Point	Photographs	Observations
7/1	24 th September 2020			7		8mm board on timber battens (7/1) 50mm void Breather membrane 10mm OSB board 150mm mineral wool


Sample No	Date/Time	X Axis	Y Axis	Datum Point	Photographs	Observations
						


Sample No	Date/Time	X Axis	Y Axis	Datum Point	Photographs	Observations
8/1-3	24 th September 2020			8		8mm board on timber battens (8/1) 50mm void Breather membrane 10mm OSB board (8/2) 150mm mineral wool (8/3)

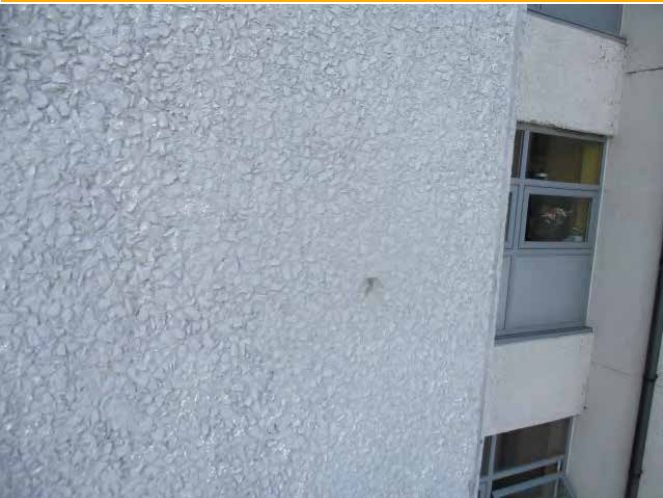
Sample No	Date/Time	X Axis	Y Axis	Datum Point	Photographs	Observations
						


Sample No	Date/Time	X Axis	Y Axis	Datum Point	Photographs	Observations
9 – no samples	24 th September 2020			9		Solid concrete


Sample No	Date/Time	X Axis	Y Axis	Datum Point	Photographs	Observations
10/1	24 th September 2020			10		8mm board on timber battens 50mm void Breather membrane 10mm OSB board (10/1) 150mm mineral wool (10/2)


Sample No	Date/Time	X Axis	Y Axis	Datum Point	Photographs	Observations
						


Sample No	Date/Time	X Axis	Y Axis	Datum Point	Photographs	Observations
11 – no samples	24 th September 2020			11		Render on concrete Solid construction


Sample No	Date/Time	X Axis	Y Axis	Datum Point	Photographs	Observations
12- no samples	24 th September 2020			12		Solid concrete


Sample No	Date/Time	X Axis	Y Axis	Datum Point	Photographs	Observations
13 – no samples	24 th September 2020			13		Render on concrete Solid construction


Sample No	Date/Time	X Axis	Y Axis	Datum Point	Photographs	Observations
14 – no samples	24 th September 2020			14		Solid concrete


Sample No	Date/Time	X Axis	Y Axis	Datum Point	Photographs	Observations
15 – no samples	24 th September 2020			15		Solid concrete


Sample No	Date/Time	X Axis	Y Axis	Datum Point	Photographs	Observations
16 – no samples	24 th September 2020			16		Solid concrete


Sample No	Date/Time	X Axis	Y Axis	Datum Point	Photographs	Observations
17 – no samples	24 th September 2020			17		Solid concrete


Sample No	Date/Time	X Axis	Y Axis	Datum Point	Photographs	Observations
18 – no samples	24 th September 2020			18		Render on concrete Solid construction


Sample No	Date/Time	X Axis	Y Axis	Datum Point	Photographs	Observations
19/1	24 th September 2020			19		<p>Composite panel comprising:</p> <ul style="list-style-type: none"> • UPVC/similar bonded to Fibreboard (19/1) • Insulation (as 20/1)


Sample No	Date/Time	X Axis	Y Axis	Datum Point	Photographs	Observations
20/1	24 th September 2020			20		<p>Composite panel comprising:</p> <ul style="list-style-type: none"> • UPVC/similar bonded Fibreboard • Insulation (as 20/1)

Sample No	Date/Time	X Axis	Y Axis	Datum Point	Photographs	Observations
						

Sample No	Date/Time	X Axis	Y Axis	Datum Point	Photographs	Observations
21/1-3	24 th September 2020			21		<p>Composite panel comprising:</p> <ul style="list-style-type: none"> • UPVC/similar 21/1 • bonded to Fibreboard (21/2) & • Insulation (21/3)

Sample No	Date/Time	X Axis	Y Axis	Datum Point	Photographs	Observations
						

Sample No	Date/Time	X Axis	Y Axis	Datum Point	Photographs	Observations
22 – no samples	24 th September 2020			22		<p>Composite panel comprising:</p> <ul style="list-style-type: none"> • UPVC/similar bonded to • Fibreboard & • Insulation <p>As 21</p>

Sample No	Date/Time	X Axis	Y Axis	Datum Point	Photographs	Observations
						


Survey Notes


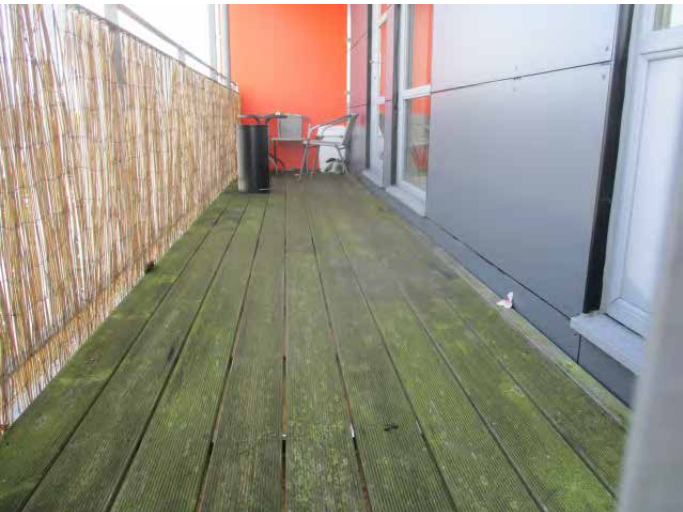
Contemporaneous Survey Notes

Upper 2 levels added
Cladding to upper 2 levels potential HPL board. Also rendered concrete to stairwells.
Lower levels primarily precast concrete.
Spandrel panels and infill panels are composite panels.

Balconies & Attachments

Note: Please include photographs and notes of any balconies and attachments observed during the survey.

ELEVATION	Photograph	Observations & Notes
Front & Rear		<p>Balconies front & rear</p> <p>Steel structure</p> <p>Timber decking</p> <p>Potentially HPL privacy screens/partitions</p>

ELEVATION	Photograph	Observations & Notes
		
		

Typical Composition

Wall Type 1- Upper Levels

#id	Material (External Inwards)	Thickness	Combustibility	Reference
1	Potential HPL Panel	8MM		
2	Void	50mm		
3	Breather Membrane			
4	Timber OSB	10mm		
5	Mineral Wool	150mm		

Wall Type 2 – rendered areas – upper levels

#id	Material (External Inwards)	Thickness	Combustibility	Reference
1	Render	Approx 15mm ?		
2	Concrete/masonry			
3				
4				

Wall Type 3 - Lower Levels

#id	Material (External Inwards)	Thickness	Combustibility	Reference
1	Concrete	>50mm		

Wall Type 4 – Spandrels/Infill Panels

#id	Material (External Inwards)	Thickness	Combustibility	Reference
1	UPVC/similar	1mm		
2	Fibreboard	3-5mm		
3	Insulation	30mm		
4	Inner face of panel	10mm		

In addition to the various wall types, the following attachments to the façade were noted:

Attachment Type 1

#id	Attachment	Construction	Combustibility	Reference
1	Balconies	Steel frame with timber decking, steel balustrade & potential HPL privacy screens.		

Sample Testing

Please complete ASL Sample Testing Form.

Photographic Evidence Location

Photographic evidence and contemporaneous notes and facade investigation and survey record were uploaded to file location.

Name:

Signed:

Position:

Dated:

END OF REPORT

Appendix C - Chartered Fire Engineer MHCLG Advice Report

Ark Sustainability Limited

**Spectrum Building, 22
Freshwater Road, Dagenham,
RM8 1EH**

External wall / cladding system

REP/022

Report | 17 December 2020



This report takes into account the particular instructions and requirements of our client.

It is not intended for and should not be relied upon by any third party and no responsibility is undertaken to any third party.

Job number 2020-22

buroashe Limited
NI 667620



Document Verification

Job title		Spectrum Building, 22 Freshwater Road, Dagenham, RM8 1EH		Job number 2020-22	
Document title		External wall / cladding system		File reference J000034	
Document ref		REP/022			
Revision	Date	Filename	Determination against MHCLG advice		
Draft 1	17 Dec 2020	Description	Draft for review by Ark Sustainability		
			Prepared by	Checked by	Approved by
		Name			
		Signature			
		Filename			
		Description			
			Prepared by	Checked by	Approved by
		Name			
		Signature			
		Filename			
		Description			
			Prepared by	Checked by	Approved by
		Name			
		Signature			
		Filename			
		Description			
			Prepared by	Checked by	Approved by
		Name			
		Signature			
<div> Issue Document Verification with Document <input checked="" type="checkbox"/> </div>					

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1 Scope

Based on the evidence listed in Section 3, the scope of this report is to determine whether the external wall / cladding systems used on Spectrum Building, 22 Freshwater Road, Dagenham, RM8 1EH satisfies the MHCLG advice (January 2020)¹ and supplementary advice (November 2020)² which addresses the measures building owners should take to review ACM and other cladding systems to assess and assure their fire safety, and the potential risks to life safety for residents, people in the proximity of the building and fire fighters from external fire spread. This determination focuses on external wall / cladding and does not address other fire safety issues of the MHCLG advice, such as fire doors and smoke ventilation.

In addition, based on the determination against the MHCLG advice the EWS1³ form has been completed.

2 Author – [REDACTED]

¹https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/869532/Building_safety_advice_for_building_owners_including_fire_doors_January_2020.pdf

²https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/936101/Supplementary_note_to_building_safety_advice_for_building_owners.pdf

³ <https://www.rics.org/globalassets/rics-website/ews1-external-wall-fire-review-final-2.pdf>

3 Evidence

The determination is based on the review of the following documents provided for this purpose:

1. Ark Sustainability (2020) *Facade Survey Assessment Report (Incl. EWS1 Determination) - Spectrum Building, 22 Freshwater Road, Dagenham, RM8 1EH*, Project Reference J00034 / ASLPR200228B (2 December 2020).
2. Sandberg (2020) Report 68387/C *Spectrum, Romford - Analysis of Insulation Samples* (5 November 2020).
3. Ark Sustainability (2020) *External Façade Investigation and Survey (Intrusive) - Spectrum Building, 22 Freshwater Road, Dagenham, RM8 1EH*. Project Reference J000034 (24 September 2020).
4. Source - Fire Risk Management (2019) *Fire Risk and Health and Safety Assessment - Spectrum Building, 22 Freshwater Road, Dagenham, RM8 1EH* Assessment Ref: RB-Q86LY8. (18 March 2019).
5. Sandberg (2018) Report 68594/X/01 *Spectrum Building, Cladding Investigation, Dagenham- Analysis of Cladding and Insulation Samples* (11 December 2018).

3.1 External wall / cladding

Based on the Ark Sustainability reports, although some uncertainty does exist, it is likely that the external wall / cladding and attachments is as described in the Ark Sustainability reports. Generically described as:

- Type 1 – Built-up wall – Solid Concrete (existing office) (300mm)*, DPM (<1mm), timber batten (25mm)*, polyisocyanurate (PIR) insulation (60mm) laminated to plasterboard* (12.5mm)⁴
- Type 2 – Built-up wall (to stair core)- Render (15mm) **(unknown)**, hollow concrete masonry blockwork (215mm)*, timber batten (25mm)*, fireline plasterboard (15mm)*⁵.
- Type 3 – Built-up wall (top two levels – new addition) – High Pressure Laminate (8mm), clear cavity (50mm), polypropylene membrane (<1mm), timber strand board (15mm), soda lime silicate, glass wool (150mm fixed between timber frame), vapour control layer (<1mm)*, timber batten (50mm)*, fireline plasterboard (15mm x 2)*⁶.
- Type 4 – Spandrel Panel (non-continuous) – Polyvinyl chloride sheet (<1mm), fibreboard (5mm), polystyrene insulation (30mm), inner face **(unknown combustion and thickness)**⁷.

* based on review of working drawings. Not confirmed by intrusive survey.

⁴ CWCT/SFE September 2020

⁵ CWCT/SFE September 2020

⁶ CWCT/SFE September 2020

⁷ CWCT/SFE September 2020

The following attachments to the façade were present:

- Attachment Type 1 (Balconies) – Steel structure and balustrading, timber decking.
- Attachment Type 2 (Privacy screens) – High pressure laminate panel, compressed wood fibres, acrylic coating).

The systems and materials assumed are based on the intrusive survey's, photos and sample testing. The sample testing did not identify any elements which could improve the reaction to fire of the polyisocyanurate PIR, polystyrene insulation polyvinyl chloride and other combustibles.

During the intrusive investigation, it was established that there was a 50mm clear cavity formed by timber batten framing behind the high pressure laminate panels (Type 3 – top two levels). This construction arrangement would appear to be consistent with the working drawing (2927.WD.46) which shows cavity barrier arrangements being formed with timber battens fixed at party wall / floor locations along with 'TCB Rockwool' cavity barriers installed at party wall lines behind the Timber Oriented Strand Board. Due to the limited nature of the intrusive survey and the difficulty in establishing party wall lines externally, it could not be confirmed whether suitable timber batten and 'TCB Rockwool' cavity barriers had been installed as shown in the working drawings.

There is also not sufficient evidence to determine both the presence and adequacy of cavity barrier arrangements across the whole of the building. Inadequate / incorrectly installed / missing cavity barriers to compartment lines is considered to significantly increase the risk of unseen fire spread from compartment to compartment, potentially affecting escape routes and evacuation strategies across the building.

Due to the solid nature of the concrete walls (Type 1) and rendered walls (Type 2), cavity barrier installations would not be applicable for this construction arrangement.

3.2 Related fire safety matters

The fire risk assessment confirms that the building operates a 'full evacuation' (simultaneous) procedure.

The premise contains a Grade A LD2 fire alarm system, dry rising main, smoke venting provisions at the head of the stair cores and communal residential corridors and protected stair cores.

4 Determination

As the Spectrum Building is greater than 18m (19.7m), as per the supplementary note to the MHCLG advice (clause 8), the advice states that owners of any building (18m or more in height from the top occupied storey (clause 8.1)) that has other forms of cladding should consider the risk of external fire spread and need for remediation. As stated in Clause 8, it is considered that the MHCLG advice January 2020) is applicable to the Spectrum Building.

Diagram 1 of the MHCLG advice outlines the process chart for assessing external wall systems. This process has been used to determine if the materials / systems used in the external wall system is appropriate from a fire risk perspective on Spectrum Building, 22 Freshwater Road, Dagenham, RM8 1EH:

- Process question 1: *Is your external wall insulation of European Class A2-s3,d2 or better?* **NO**. Polyisocyanurate PIR insulation, polystyrene insulation, high pressure laminate, timber battens, various membranes / various boards, all combustible to varying degrees.
- Process question 2: *Is your external wall system in line with one that has achieved a BR135 classification via a BS8414 test?* **NO**.

As a result of answers to these questions, MHCLG advice recommends the following:

Seek urgent professional advice on the measure(s) that need to be taken to ensure that the external walls meet an appropriate standard of fire safety. This may involve the replacement of some or all of the materials in the external wall. As part of the development of these measures, assess whether cavity barriers and fire stopping have been installed correctly, and whether the system has been maintained appropriately. Consider whether short-term interim safety measures are required. Carry out any remedial works required and update your fire risk assessment following the works.

5 Discussion

Spectrum Building, 22 Freshwater Road, Dagenham, RM8 1EH is a detached, mixed use building.

The existing former office building has been extended upwards and converted to provide commercial spaces at basement and ground floor levels with 60 individual residential apartments formed between first and sixth floor levels. Plant and services are contained within the basement level and a communal roof terrace is provided to the top of the building.

The building is provided with two stair cores and two passenger lifts. Stair one and both lift cores, one of which is a fire-fighting lift is located to the east elevation with stair two being located to the west elevation.

Generically, the Type 1 system which covers the vast majority of the elevations are a built-up wall (incorporating the existing structural external concrete wall) with – Solid Concrete (existing office building) (300mm)*, DPM (<1mm), timber batten (25mm)*, polyisocyanurate (PIR) insulation (60mm) laminated to plasterboard* (12.5mm).

From the drawings provided from the O&M manual (2927.WD.62A and 2927.WD.62B) it appears that the existing structure and in particular the junction between the external wall and the structural floor are cast in-situ and as such provide the sufficient compartmentation from the flat below to the flat above. This assumption is relevant for the existing structure up to level four. Assuming this condition, the use of combustible insulation on the interior of the external wall is not significant in terms of external fire spread, as fire spread and products of combustion should be contained within the flat of fire origin.

Generically, the Type 3 system to the top two levels (addition to existing structure) High Pressure Laminate (HPL) (8mm), clear cavity (50mm), polypropylene membrane (<1mm), timber strand board (15mm), soda lime silicate, glass wool (150mm fixed between timber frame), vapour control layer (<1mm), timber batten (50mm)*, fireline plasterboard (15mm x 2).

The HPL is likely to have a Euroclass D. Although, the type 3 system does not contain combustible insulation, it contains timber board and battens and combustible membranes and in combination with the HPL cladding presents a risk of external fire spread.

From the results of the intrusive survey the lack of cavity barriers / fire stopping to the voids, presents a risk of external fire spread.

The risk of an external fire (deliberate or accidental) igniting the HPL on Type 3 timber decking on balconies and privacy screens cannot be discounted and needs to be mitigated.

6 Recommendations

Given the evidence available and summarised above, the following recommendations are made to mitigate the fire risks to an acceptable level:

6.1 Short-term actions (within one month)

- Building owners to inform fire and rescue service to the nature of the external wall / cladding systems.
- Confirm that the junction between the existing external wall and the existing structural floor is adequate to ensure compartmentation.
- Review fire risk assessment given the nature of the external wall cladding / systems.
- Review fire risk assessment to ensure the management procedures are in place to ensure an effective simultaneous evacuation and that strategies are in place to identify and manage evacuation for vulnerable occupants. NFCC⁸ guidance should be considered.
- Strategies to minimise the likelihood of an external fire igniting timber decking should be implemented. All ignition sources (such as smoking, BBQ, heaters) should be removed from balconies.

6.2 Medium-term actions (within three months)

Given the MHCLG advice the options available to demonstrate the external wall / cladding system meets the MHCLG advice are limited. All actions / options come with varying levels of uncertainty and cost. Further evaluation of these actions / options in terms of uncertainty and cost is required to aid decision-making and not covered by this report.

⁸ <https://www.nationalfirechiefs.org.uk/Simultaneous-evacuation-guidance>

The following medium-term actions focus on the top 2 levels that incorporate the Type 3 system, where the greatest risk of external fire spread exists. These actions are aiming to deliver a proportional response to the risk of external fire spread.

The options available are as follows:

1. If evidence can be provided that the external wall / cladding system (Type 3) used on the Spectrum Building has been subject to a BR135 classification, a detailed survey must be undertaken to identify the as build construction and ensure the integrity of the external wall system from an external fire spread perspective is as per the classified system (including cavity barriers).
2. Undertake a holistic fire engineering analysis to determine the additional fire safety measures necessary to ensure an adequate level of fire safety accounting for the cladding system (Type 3) on the top 2 levels. This assessment should be undertaken in consultation with the fire and rescue service, building insurer and the residents of the Spectrum Building.
3. Remove External wall / cladding system and replace with materials that achieve Class A2-s3,d2 or better, to demonstrate external wall / cladding system meets the MHCLG advice.

Irrespective of the option selected, the spandrel panel (type 4), timber decking to balconies and HPL privacy screens should be replaced with materials that meets the MHCLG advice.

6.3 Long-term action (within 12 months)

The government is bringing forward fundamental changes in the draft Building Safety Bill that will improve building and fire safety. The government accepted the Hackitt review's recommendations and the draft Building Safety Bill, which, alongside the existing Fire Safety Bill and fire safety consultation will set out how they are bringing forward those proposals to provide the biggest changes to building safety in nearly 40 years.

Given that the Building Safety Bill is highly likely to be legislated over the next 1-2 years, it is recommended that the actions undertaken should ensure that Spectrum Building, 22 Freshwater Road, Dagenham, RM8 1EH will be in a position to demonstrate structural and fire safety against the new legislation and regulations such as:

- Development of a Safety Case.
- Collection and presentation of the necessary building information in a digital format.

6.4 EWS1 form

Based on the findings contained in this report I have concluded that an **adequate standard of safety is not achieved**, and I have identified to the client organisation the remedial and interim measures required.

Determination = **B2**.

Appendix B - Normative References

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

Standards Publications

British Standards Institution, BS 476 (all parts), Fire tests on building materials and structures, London: BSI.

British Standards Institution (2005) BS 4422 Fire Vocabulary, London: BSI.

British Standards Institution (1970) BS 476-4 Fire tests on building materials and structures - Part 4: Non-combustibility test for materials, London: BSI.

British Standards Institution (1982) BS 476-11 Fire tests on building materials and structures. Method for assessing the heat emission from building materials, London: BSI.

British Standards Institution (1991) BS 476-12 Fire tests on building materials and structures - Part 12: Method of test for ignitability of products by direct flame impingement, London: BSI.

British Standards Institution (1997) BS476-7 Fire tests on building materials and structures: Part 7. Method of test to determine the classification of the surface spread of flame of products, London: BSI.

British Standards Institution (1997) BS476-23 Fire tests on building materials and structures - Part 23: Methods for determination of the contribution of components to the fire resistance of a structure, London: BSI.

British Standards Institution (1987) BS 476 - 22 Fire tests on building materials and structures - Part 22: Methods for determination of the fire resistance of non-load bearing elements of construction, London: BSI.

British Standards Institution (1987) BS 476 - 21 Fire tests on building materials and structures - Part 20: Method for determination of the fire resistance of elements of construction (general principles), London: BSI.

British Standards Institution (1987) BS 476 -21 Fire tests on building materials and structures - Part 21: Methods for determination of the fire resistance of load bearing elements of construction, London: BSI.

British Standards Institution (2020) BS 8414-1 Fire performance of external cladding systems – Part 1: Test methods for non-load bearing external cladding systems applied to the face of a building, London: BSI.

British Standards Institution (2020) BS 8414-2, Fire performance of external cladding systems – Part 2: Test method for non-load bearing external cladding systems fixed to and supported by a structural steel frame, London: BSI.

British Standards Institution (2005) BS 6262-3: 2005 Glazing for buildings - Part 3: Code of practice for fire, security and wind loading, London: BSI.

British Standards Institution (2013) BS 8524-1/BS8524-2 (both parts), Active fire curtain barrier assemblies, London: BSI.

British Standards Institution (2014) BS 9251:2014, Sprinkler systems for residential and domestic occupancies - Code of practice, London: BSI.

British Standards Institution (2015) BS 9990:2015 Non automatic fire-fighting systems in buildings, Code of practice, London: BSI.

British Standards Institution (2017) BS 9999:2017 Code of practice for fire safety in the design, management and use of buildings, London: BSI.

British Standards Institution (2015) BS9991 Fire Safety in the design, management and use of residential buildings. Code of practice, London: BSI.

British Standards Institution BS EN 3 (all parts), Portable fire extinguishers, London: BSI.

British Standards Institution BS EN 81 (all parts), Safety rules for the construction and installation of lifts, London: BSI.

British Standards Institution (1997) BS EN 1154, Building hardware – Controlled door closing devices – Requirements and test methods, London: BSI.

British Standards Institution BS EN 1363 (all parts), Fire resistance tests, London: BSI.

British Standards Institution BS EN 1364 (all parts), Fire resistance tests for non-load bearing elements, London: BSI.

British Standards Institution BS EN 1365 (all parts), Fire resistance tests for load bearing elements, London: BSI.

British Standards Institution BS EN 1366 (all parts), Fire resistance tests for service installations, London: BSI.

British Standards Institution (2018) BS EN 1634-1, Fire resistance tests for door and shutter assemblies – Part 1: Fire resistance test for door and shutter assemblies and openable windows, London: BSI.

British Standards Institution (2004) BS EN 1634-3:2004, Fire resistance tests for door and shutter assemblies – Part 3: Smoke control test for door and shutter assemblies, London: BSI.

British Standards Institution BS EN 12101 (all parts), Smoke and heat control systems, London: BSI.

British Standards Institution (2019) BS EN 12845:2015 + A1:2019 Fixed firefighting systems – Automatic sprinkler systems – Design, installation and maintenance, London: BSI.

British Standards Institution (2018) BS EN 16925:2018 Fixed firefighting systems - Automatic residential sprinkler systems - Design, installation and maintenance, London: BSI.

British Standards Institution BS EN 13501 (all parts), Fire classification of construction products and building elements, London: BSI.

British Standards Institution (2020) BS EN 13823, Reaction to fire tests for building products – Building products excluding floorings exposed to the thermal attack by a single burning item, London: BSI.

British Standards Institution (2020) BS EN ISO 1182, Reaction to fire tests for building products – Non combustibility test, London: BSI.

British Standards Institution (2018) BS EN ISO 1716, Reaction to fire tests for products – Determination of the gross heat of combustion (calorific value), London: BSI.

British Standards Institution (2015) BS 8458:2015 - TC Tracked Changes. Fixed fire protection systems. Residential and domestic water-mist systems. Code of practice for design and installation, London: BSI.

British Standards Institution (2019) BS 7974:2019 Application of fire safety engineering principles to the design of buildings. Code of practice, London: BSI.

British Standards Institution (2019) PD 7974-1:2019 Application of fire safety engineering principles to the design of buildings. Initiation and development of fire within the enclosure of origin (Sub-system 1), London: BSI.

British Standards Institution (2019) PD 7974-2:2019 Application of fire safety engineering principles to the design of buildings. Spread of smoke and toxic gases within and beyond the enclosure of origin (Sub-system 2), London: BSI.

British Standards Institution (2019) PD 7974-3:2019 Application of fire safety engineering principles to the design of buildings. Structural response to fire and fire spread beyond the enclosure of origin (Sub-system 3), London: BSI.

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Employer's Requirements
The Spectrum Building

APPENDIX D

**Official Copy of Register
EDOC Registration EGL525981**

These are the notes referred to on the following official copy

The electronic official copy of the title plan follows this message.

Please note that this is the only official copy we will issue. We will not issue a paper official copy.

This official copy was delivered electronically and when printed will not be to scale. You can obtain a paper official copy by ordering one from HM Land Registry.

This official copy is issued on 25 January 2019 shows the state of this title plan on 25 January 2019 at 12:17:04. It is admissible in evidence to the same extent as the original (s.67 Land Registration Act 2002). This title plan shows the general position, not the exact line, of the boundaries. It may be subject to distortions in scale. Measurements scaled from this plan may not match measurements between the same points on the ground. This title is dealt with by the HM Land Registry, Telford Office .

HM Land Registry

Official copy of title plan

Title number **TGL448901**

Ordnance Survey map reference **TQ4787SE**

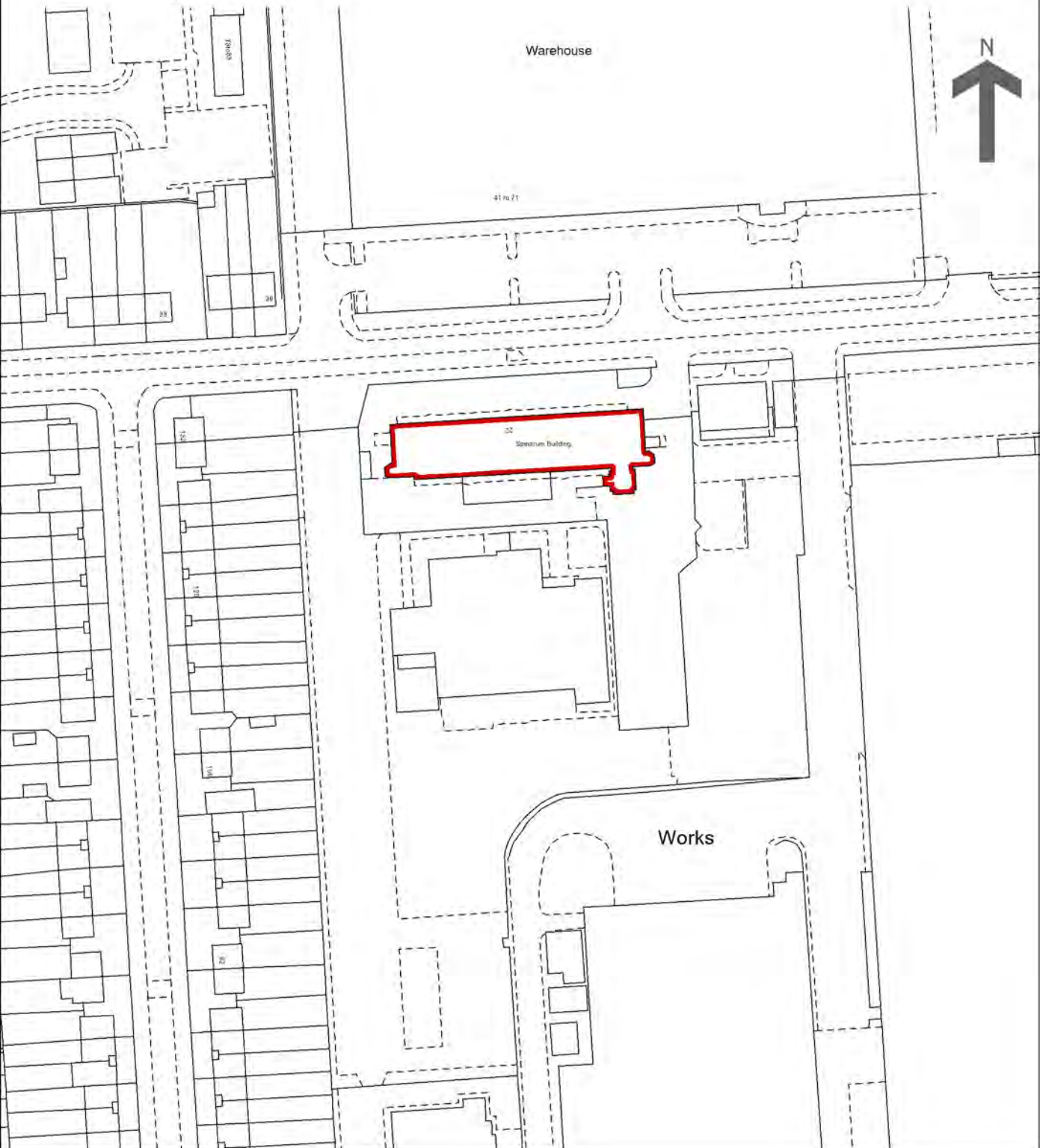
Scale **1:1250 enlarged from 1:2500**

Administrative area **Barking and Dagenham**



© Crown copyright and database rights 2016 Ordnance Survey 100026316. You are not permitted to copy, sub-license, distribute or sell any of this data to third parties in any form.

The land in this title lies within the area edged red hereon and is more particularly described in the lease or leases referred to in the property register.





Official copy of register of title

Title number EGL525981

Edition date 03.12.2019

- This official copy shows the entries on the register of title on 18 Dec 2019 at 12:15:08.
- This date must be quoted as the "search from date" in any official search application based on this copy.
- The date at the beginning of an entry is the date on which the entry was made in the register.
- Issued on 18 Dec 2019.
- Under s.67 of the Land Registration Act 2002, this copy is admissible in evidence to the same extent as the original.
- This title is dealt with by HM Land Registry Telford Office.

A: Property Register

This register describes the land and estate comprised in the title.

BARKING AND DAGENHAM

- 1 (18.10.1934) The Freehold land shown edged with red on the plan of the above title filed at the Registry and being Spectrum Building, 22 Freshwater Road, Dagenham (RM8 1EH).
- 2 (30.04.2001) The land has the benefit of the rights granted by but is subject to the rights reserved by the Transfer dated 16 March 2001 referred to in the Charges Register.
- 3 (30.04.2001) The Transfer dated 16 March 2001 referred to above contains a provision as to light or air.
- 4 (31.08.2007) The land has the benefit of the rights granted by but is subject to the rights reserved by a Transfer of the land in this title dated 31 July 2007 made between (1) P J Property Limited and (2) Chadwell Properties LLP.

NOTE: Copy filed.

- 5 (18.12.2015) A new title plan based on the latest revision of the Ordnance Survey Map has been prepared.

B: Proprietorship Register

This register specifies the class of title and identifies the owner. It contains any entries that affect the right of disposal.

Title absolute

- 1 (03.12.2019) PROPRIETOR: ARINIUM LIMITED (Co. Regn. No. 11784090) of 310 Harrow Road, Wembley HA9 6LL.
- 2 (03.12.2019) The price stated to have been paid on 28 November 2019 was £3,750,000.
- 3 (03.12.2019) The Transfer to the proprietor contains a covenant to observe and perform the covenants referred to in the Charges Register and of indemnity in respect thereof.
- 4 (03.12.2019) The Transfer to the proprietor contains a covenant to

B: Proprietorship Register continued

observe and perform the covenants by the landlord contained in the occupational leases and of indemnity in respect thereof.

- 5 (03.12.2019) RESTRICTION: No disposition of the registered estate by the proprietor of the registered estate or by the proprietor of any registered charge, not being a charge registered before the entry of this restriction, is to be registered without a written consent signed by the proprietor for the time being of the Charge dated 28 November 2019 in favour of Lloyds Bank PLC referred to in the Charges Register.

C: Charges Register

This register contains any charges and other matters that affect the land.

- 1 A Conveyance of the land in this title and other land dated 1 October 1934 made between (1) The London County Council (the Council) and (2) Lewis Berger and Sons Limited (Purchaser) contains covenants details of which are set out in the schedule of restrictive covenants hereto.
- 2 (24.01.2001) By a Deed dated 6 October 2000 made between (1) The Mayor and Burgesses of the London Borough of Barking and Dagenham (the Council) and (2) DuPont Performance Coatings (UK) Limited (DuPont) the covenants contained in the Conveyance dated 1 October 1934 referred to above were expressed to be released and further covenants imposed. Details of the release and further covenants are set out in the schedule of restrictive covenants hereto.
- 3 (30.04.2001) A Transfer of the land in this title and other land dated 16 March 2001 made between (1) Du Pont Performance Coatings (UK) Limited and (2) Kylloe Holdings Limited contains restrictive covenants.

NOTE 1: Where relevant, the provisions contained in the earlier documents or registers referred to in the above deed are set out in the registers of this title

NOTE 2: Copy filed under EGL422380.

- 4 (17.07.2015) By a Deed dated 7 July 2015 made between (1) Axalta Coating Systems UK Limited and (2) Chadwell Properties Llp the covenants contained in the Transfer dated 16 March 2001 referred to above were expressed to be released.

NOTE: Copy filed.

- 5 (22.12.2015) The parts of the land affected thereby are subject to the leases set out in the schedule of leases hereto.
The leases grant and reserve easements as therein mentioned.

NOTE: Each lease is referenced by edging and numbering in blue on the supplementary plan to the title plan unless otherwise stated in the schedule of leases.

- 6 (03.12.2019) REGISTERED CHARGE dated 28 November 2019.
- 7 (03.12.2019) Proprietor: LLOYDS BANK PLC (Co. Regn. No. 2065) Dept. 3282) of Pendeford Securities Centre, Pendeford Business Park, Wobaston Road, Wolverhampton WV9 5HZ.

Schedule of restrictive covenants

- 1 The following are details of the covenants contained in the Conveyance dated 1 October 1934 referred to in the Charges Register:-

"The Purchasers for themselves and their sequels in title to the intent that this covenant shall run with the land hereby conveyed and every part thereof and bind the same into whosoever hands the same shall come further covenant with the Council and their successors or sequels in title that they the Purchasers and their sequels in title will observe and perform the restrictions and stipulations set forth in the Schedule hereto.

Schedule of restrictive covenants continued

THE SCHEDULE

(a) That no building shall be erected on the land hereby conveyed except in accordance with plans and elevations previously submitted to and approved by the Council (such approval not to be unreasonably withheld).

(b) That the land hereby conveyed and the buildings thereon shall not be used for any purpose other than as and for a factory for the purpose of the business of the Purchasers of paint and varnish manufacturers and as a sports ground for the Purchasers' employees or for such other purpose or purposes as in the opinion of the Council shall be necessary or desirable for the development of the said Becontree Housing Estate.

(c) That no noisy noisome noxious or offensive trade or business and in particular that no noxious processes in connection with the Purchasers' business of paint and varnish manufacturers shall at any time be carried on upon the said land or any part thereof and nothing shall be done or permitted or brought thereon or on any part thereof or anything built thereon which shall be or may grow to be a nuisance annoyance inconvenience or disturbance to the Council and the residents and occupiers of the Becontree Housing Estate or any adjoining or neighbouring land.

(d) That without the previous written consent of the Council no building or structure to be erected on the land hereby conveyed or any part thereof shall be used for the purpose of a place of entertainment or amusement at which the exhibition and/or performance of cinematograph films forms part of the programme."

The Conveyance contains also the following covenant:-

"The Purchasers for themselves and their sequels in title hereby covenant with the Council:-

Forthwith to erect and for ever after to maintain to the satisfaction of the Council permanent fencing of a height type and material approved by the Council along the western boundary of that part of the land hereby conveyed which abuts on the rear of houses in Lymington Road between the proposed extensions of Kemp Road and Freshwater Road."

- 2 The following are details of the terms of the release and additional covenants contained in the Deed dated 6 October 2000 referred to in the Charges Register:-

"the Council in so far as it can and lawfully may agrees with DuPont with no title guarantee to release the land from the Old Covenants

In consideration of the Council providing the release of the Old covenants DuPont agrees to enter into new covenants

New Covenants

1. Du Pont Covenants with the Council to the intent that the burden of the covenants will run with and bind the land comprised in title number EGL200091 and every part of it and the benefit of the covenants with the Council's land (which has the benefit of the covenants in the 1934 Conveyance) that:-

1.1 no part of the land comprised in title number EGL200091 may be used for any use other than a use falling within classes B1 to B8 inclusive of the Schedule to the Town and Country Planning (Use Classes) Order 1987;

1.2 no noisy noisome noxious or offensive trade or business and in particular that no noxious processes in connection with the business carried out upon the said land or any part thereof and nothing shall be done or permitted or bought thereon or on any part thereof or anything built thereon which shall be or may grow to be a nuisance annoyance inconvenience or disturbance to the Council and the residents and occupiers of Becontree Housing Estate or any adjoining or neighbouring land

Schedule of restrictive covenants continued

1.3 without previous written consent of the Council no building shall be erected on the land comprised in title number EGL200091 or any part thereof which shall be used for the purpose of a place of entertainment or amusement at which the exhibition and/or performance of cinematography films forms part of the programme"

NOTE: The Old Covenants referred to are those referred in clauses (b), (c), and (d) of the Schedule to the Conveyance dated 1 October 1934.

Schedule of notices of leases

	Registration date and plan ref.	Property description	Date of lease and term	Lessee's title
1	22.12.2015 Edged and numbered 1 in blue	Apartment 110, Spectrum Building (first floor)	17.12.2015 150 years from 01.01.2014	TGL437671
2	22.12.2015 Edged and numbered 2 in blue	Apartment 204, Spectrum Building (second floor)	17.12.2015 150 years from 01.01.2014	TGL437728
3	31.12.2015 Edged and numbered 3 in blue	Apartment 105, Spectrum Building (first floor)	17.12.2015 150 years from 01.01.2014	TGL438066
4	05.01.2016 Edged and numbered 4 in blue	Apartment 302, Spectrum Building (third floor)	17.12.2015 150 years from 01.01.2014	TGL438198
5	06.01.2016 Edged and numbered 6 in blue	Apartment 103, Spectrum Building (first floor)	17.12.2015 150 years from 01.01.2014	TGL438249
6	07.01.2016 Edged and numbered 7 in blue	Apartment 108, Spectrum Building (first floor)	17.12.2015 150 years from 01.01.2014	TGL438385
7	07.01.2016 Edged and numbered 8 in blue	Apartment 201, Spectrum Building (second floor)	17.12.2015 150 years from 01.01.2014	TGL438480
8	07.01.2016 Edged and numbered 9 in blue	Apartment 206, Spectrum Building (second floor)	17.12.2015 150 years from 01.01.2014	TGL438484
9	11.01.2016 Edged and numbered 10 in blue	Apartment 106, Spectrum Building (first floor)	17.12.2015 150 years from 01.01.2014	TGL438764
10	14.01.2016 Edged and numbered 11 in blue	Apartment 306, Spectrum Building (third floor)	18.12.2015 150 years from 01.01.2014	TGL439186
11	14.01.2016 Edged and numbered 12 in blue	Apartment 104, Spectrum Building (first floor)	21.12.2015 150 years from 01.01.2014	TGL439214
12	19.01.2016 Edged and numbered 13 in	Apartment 301, Spectrum Building (third floor)	17.12.2015 150 years from 01.01.2014	TGL439470

Schedule of notices of leases continued

	Registration date and plan ref.	Property description	Date of lease and term	Lessee's title
	blue			
13	26.01.2016 Edged and numbered 16 in blue	Apartment 208, Spectrum Building (second floor)	22.12.2015 150 years from 01.01.2014	TGL440184
14	26.01.2016 Edged and numbered 17 in blue	Apartment 307, Spectrum Building (third floor)	22.12.2015 150 years from 01.01.2014	TGL440185
15	29.01.2016 Edged and numbered 18 in blue	Apartment 309, Spectrum Building (third floor)	17.12.2015 150 years from 01.01.2014	TGL440462
16	09.02.2016 Edged and numbered 19 in blue	Apartment 308, Spectrum Building (third floor)	29.01.2016 150 years from 01.01.2014	TGL441135
17	15.02.2016 Edged and numbered 20 in blue	Apartment 203, Spectrum Building (second floor)	21.12.2015 150 years from 01.01.2014	TGL441531
18	16.02.2016 Edged and numbered 21 in blue	Apartment 310, Spectrum Building (third floor)	17.12.2015 150 years from 01.01.2014	TGL441639
19	23.02.2016 Edged and numbered 22 in blue	Apartment 101, Spectrum Building (first floor)	20.01.2016 150 years from 01.01.2014	TGL442089
20	15.03.2016 Edged and numbered 23 in blue	Apartment 303, Spectrum Building (third floor)	05.02.2016 150 years from 01.01.2014	TGL443393
21	17.03.2016 Edged and numbered 24 in blue	Apartment 202, Spectrum Building (second floor)	22.12.2015 150 years from 01.01.2014	TGL443611
22	04.04.2016 Edged and numbered 25 in blue	Apartment 102, Spectrum Building (first floor)	18.03.2016 150 years from 01.01.2014	TGL444589
23	08.04.2016 Edged and numbered 26 in blue	Apartment 503, Spectrum building (fifth floor)	30.03.2016 150 years from 01.01.2014	TGL445128
24	11.04.2016 Edged and numbered 27 in blue	Apartment 510, Spectrum Building (fifth floor)	31.03.2016 150 years from 01.01.2014	TGL445232
25	11.04.2016 Edged and numbered 28 in blue	Apartment 501, Spectrum Building (fifth floor)	31.03.2016 150 years from 01.01.2014	TGL445238
26	13.04.2016 Edged and numbered 29 in blue	Apartment 402, Spectrum Building (fourth floor)	04.04.2016 150 years from 01.01.2014	TGL445410

Schedule of notices of leases continued

	Registration date and plan ref.	Property description	Date of lease and term	Lessee's title
27	13.04.2016 Edged and numbered 30 in blue	Apartment 304, Spectrum Building (third floor)	30.03.2016 150 years from 01.01.2014	TGL445444
28	21.04.2016 Edged and numbered 31 in blue	Apartment 405, Spectrum Building (fourth floor)	31.03.2016 150 years from 01.01.2014	TGL446229
29	21.04.2016 Edged and numbered 32 in blue	Apartment 210, Spectrum Building (second floor)	31.03.2016 150 years from 01.01.2014	TGL446275
30	25.04.2016 Edged and numbered 33 in blue	Apartment 508, Spectrum Building (fifth floor)	14.04.2016 150 years from 01.01.2014	TGL446432
31	25.04.2016 Edged and numbered 34 in blue	Apartment 404, Spectrum Building (fourth floor)	15.04.2016 150 years from 01.01.2014	TGL446450
32	05.05.2016 Edged and numbered 35 in blue	Apartment 401, Spectrum Building (fourth floor)	31.03.2016 150 years from 01.01.2014	TGL447321
33	06.05.2016 Edged and numbered 36 in blue	Apartment 207, Spectrum Building (second floor)	21.04.2016 150 years from 01.01. 2014	TGL447410
34	09.05.2016 Edged and numbered 37 in blue	Apartment 507, Spectrum Building (fifth floor)	31.03.2016 150 years from 1.1.2014	TGL447538
35	09.05.2016 Edged and numbered 38 in blue	Apartment 504, Spectrum Building (fifth floor)	31.03.2016 150 years from 1.1.2014	TGL447539
36	18.05.2016 Edged and numbered 39 in blue	Apartment 407, Spectrum Building (fourth floor)	31.03.2016 150 years from 01.01.2014	TGL448253
37	19.05.2016 Edged and numbered 40 in blue	Apartment 509, Spectrum Building (fifth floor)	13.05.2016 150 years from 01.01.2014	TGL448331
38	19.05.2016 Edged and numbered 41 in blue	Apartment 205, Spectrum Building (second floor)	29.03.2016 150 years from 01.01.2014	TGL448387
39	23.05.2016 Edged and numbered 42 in blue	Apartment 109, Spectrum Building (first floor)	05.01.2016 150 years from 1.1.2014	TGL448454
40	27.05.2016 Edged and numbered 43 and 44 in blue	Unit B, Spectrum Building (ground floor and basement)	17.05.2016 Beginning on 17.5.2016 and ending on and including 16.5.2031	TGL448901

Schedule of notices of leases continued

	Registration date and plan ref.	Property description	Date of lease and term	Lessee's title
41	02.06.2016 Edged and numbered 45 in blue	Apartment 408, Spectrum Building (fourth floor)	09.05.2016 150 years from 01.01.2014	TGL449145
42	06.06.2016 Edged and numbered 46 in blue	Apartment 409, Spectrum Building (fourth floor)	31.03.2016 150 years from 01.01.2014	TGL449327
43	15.06.2016 Edged and numbered 47 in blue	Apartment 502, Spectrum Building (fifth floor)	18.05.2016 150 years from 01.01.2014	TGL450031
44	28.06.2016 Edged and numbered 48 in blue	Apartment 107, Spectrum Building (first floor)	23.12.2015 150 years from 01.01.2014	TGL450666
45	19.08.2016 Edged and numbered 49 in blue	Apartment 505, Spectrum Building (fifth floor)	16.05.2016 150 years from 01.01.2014	TGL454697
46	23.08.2016 Edged and numbered 50 in blue	Apartment 410, Spectrum Building (fourth floor)	31.03.2016 150 years from 01.01.2014	TGL454942
47	14.09.2016 Edged and numbered 51 in blue	Apartment 209, Spectrum Building (second floor)	17.12.2015 150 years from 01.01.2014	TGL456204
48	19.09.2016 Edged and numbered 52 in blue	Apartment 406, Spectrum Building (fourth floor)	09.09.2016 150 years from 01.01.2014	TGL456478
49	07.12.2016 Edged and numbered 53 in blue on the title plan	parking space 55, Spectrum Building (ground floor)	01.12.2016 150 years from 01.01.2014	TGL462024
50	20.12.2016 Edged and numbered 54 in blue on the title plan	parking space 46, Spectrum Building (ground floor)	02.12.2016 150 years from 01.01.2014	TGL462920
51	24.01.2017 Edged and numbered 55 in blue	Apartment 605, Spectrum Building (sixth floor)	22.12.2016 150 years from 01.01.2014	TGL465327
52	27.01.2017 Edged and numbered 56, 57, 58, 59 and 60 in blue	Nursery, Spectrum Building (ground floor and parking spaces)	06.05.2016 Beginning on 06.05.2016 and ending on, and including 05.05.2036	TGL465601
53	08.02.2017 Edged and numbered 61 in blue	Apartment 305, Spectrum Building (third floor)	17.12.2015 150 years from 01.01.2014	TGL466508
54	01.03.2017 Edged and Numbered 62 in	Apartment 606, Spectrum Building (sixth floor)	19.01.2017 150 years from 01.01.2014	TGL468096

Title number EGL525981

Schedule of notices of leases continued

Registration date and plan ref.	Property description	Date of lease and term	Lessee's title
blue			

End of register

APPENDIX C

Contractor's Proposals

CONTRACTOR'S PROPOSAL

PROJECT WORKS	Remediation of Cladding System
ADDRESS	22 Freshwater Road, Dagenham RM8 1EH
CLIENT	Arinium Limited
DATE	27 September 2023



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SECTION 3 - Building control full plans approval and fire engineers report

APPENDICIES

APPENDIX A - Planning Consent (LBBSD Reference 23/00663/FULL)

APPENDIX B - Drawings

APPENDIX C - Outline Specification Wall Build Up

APPENDIX D - Programme

APPENDIX E - Construction Phase Plan

Prepared By:

.....
[Redacted Signature]


Authorised By:

.....
[Redacted Signature]

Date: 27 September 2023

SECTION 1

**REMEDIATION SCOPING REPORT
dated 24 August 2023**



Remediation Scoping Report Spectrum, Dagenham

24th August 2023

Fleetwood Architectural Aluminium

15751BC



BB7

Revision History

Version	Date	Author	Comments
01	24/0 /23		First issue

Document reference
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This document relates only to statutory requirements for Building Regulations compliance which focuses on life safety only. Additional fire safety measures may be necessary for insurance and other purposes and if you require these to be considered you must inform us. Where no reference is made within this report to a certain element, all detailed aspects of the design and construction will, unless explicitly stated otherwise in this report, be in accordance with the recommendations of the selected design guidance identified in the legislation section of this report and the appropriate British Standards.

The validity of this document is dependent upon the recommendations being implemented in full and as described. This document relates to a development that is subject to review from Approval Authorities. It should be ensured that the contents of the document are agreed with all the relevant approval bodies prior to implementation.

This document is based on our client's or our Client's Representative's description of their requirements and is subject to assumptions that BB7 can reasonably be expected to make in accordance with our professional principles and experience. BB7 accept no liability for the accuracy of the information provided by our client, or any third parties and any information provided by to us and referred to herein has not been verified by BB7, unless otherwise expressly stated in the document.

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1. Introduction

1.1 Scope

BB7 have been appointed by Fleetwood Architectural Aluminium (“the client”) to provide external wall remedial work design and monitoring support (15751BC) for the proposed remedial works for Spectrum Building (shown in Figure 1). This façade remediation strategy report forms part of the agreed scope.

This resultant document is only applicable to the highlighted buildings at the following address:

- Spectrum Building, 22 42 Freshwater Road, Dagenham, RM8 1EH.

The following report outlines the proposed replacement external walling systems and cavity barrier provisions and remediation, and compliance of the works with the latest iteration of Approved Document B and whether the design fulfils the functional requirements B4(1) of the Building Regulations in our opinion.

The report will provide an analysis of the proposed external wall materials and assess the provisions for cavity barriers and fire stopping associated with the proposed remedial works.

To conclude the report, BB7 will provide a likely EWS1 Outcome based on the agreed design in principle. This outcome will be subject to our expectations being met during remedial work.

The building is shown in Figure 1.1 below.

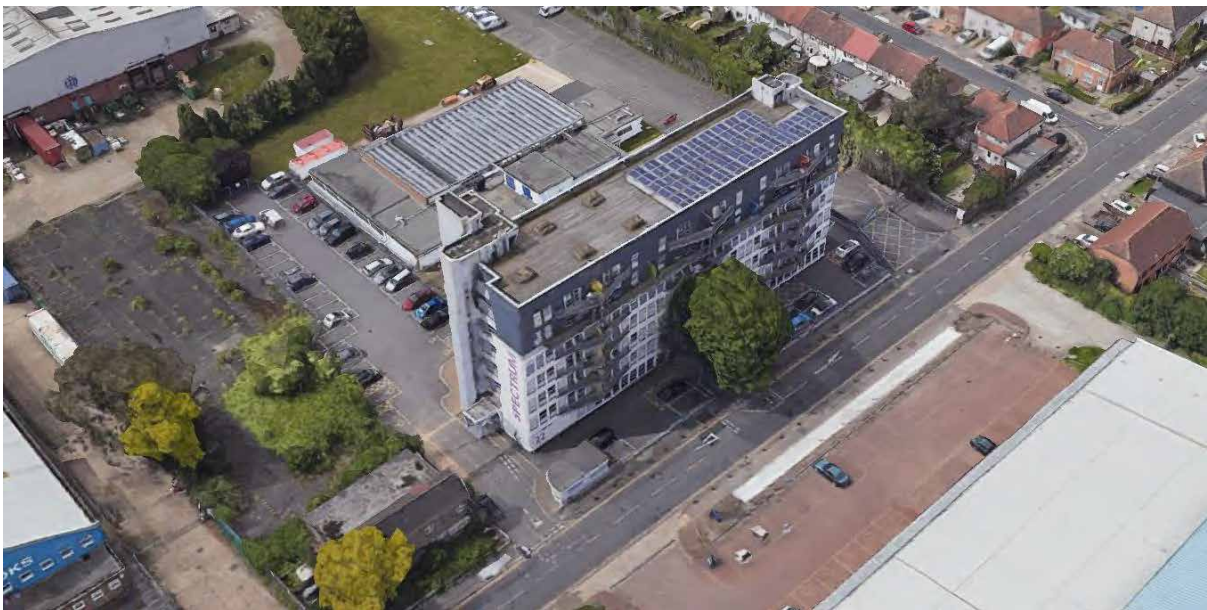


Figure 1.1 Aerial Image

Areas or parts of the existing external walling systems which need to be replaced as part of the remedial works will be captured during site monitoring of the remedial works. Where the external walling system does not require remedial works due to the risk being sufficiently low, this would not warrant proportionate remedial work (from an EWS1 perspective), and as such these areas are not subject to remedial work.

This report will also consider any impact on issuing an EWS1 form. Whilst there may be areas which can be considered “code compliant” to the original guidance used, but they may not be acceptable from an EWS1 assessment perspective. Any such scenario will be clearly outlined in this report. It should be noted that

providing an EWS1 form is part of BB7's current scope of works under a separate appointment following completion of the remedial work.

The location of the building is shown in the Figure 1.2 below.



Figure 1.2 Location on map

This document is for the sole use of Fleetwood Architectural Aluminium and is applicable to Spectrum at 22-32 Freshwater Road, Dagenham. All opinions expressed within this report are based on the information provided by Fleetwood Architectural Aluminium and intrusive inspections carried out by BB7 on The Spectrum, on 28th June 2023. If more definitive information on the fire performance data relied upon within this assessment becomes available after the issue date of this report, such information should take precedence and may invalidate our opinions and/or the provisions recommended in this report.

2. Project Description – Spectrum, Dagenham

2.1 The Development

The development is understood to have undergone a material change of use in 2014 and would have been subject to The Building Regulations 2010. Approved Document B 2006 incorporating the 2010 and 2013 amendments) was current at the time. Although the original building was constructed in circa 1970's as commercial office building, in 2014 the building underwent a change of use to a residential building which incorporated an additional 2 storey vertical extension from 5 stories to 7 stories.

The height of the building is above 18m (G+6). As the building is above 18m, it is considered a relevant building under Regulation 7(4). As the building is seven stories (G+6) and contains two or more dwellings, it is considered a high risk residential building (HRRB).

The Spectrum building is understood to be reinforced concrete frame construction with reinforced concrete floors to G to 5th storeys and timber frame to storeys 6 and 7. The external wall system comprises of pre cast large panel system, render on blockwork system and HPL cladding system.

The building provides commercial / ancillary areas to the ground floor and basement, to the upper floors 1 6, residential apartments are present.

The common corridors incorporate natural ventilation system AOVs at either end of the corridors. As there are two stairs the travel distance is within the expected limitations.

The building incorporates a firefighting lobby area and a firefighting staircase.

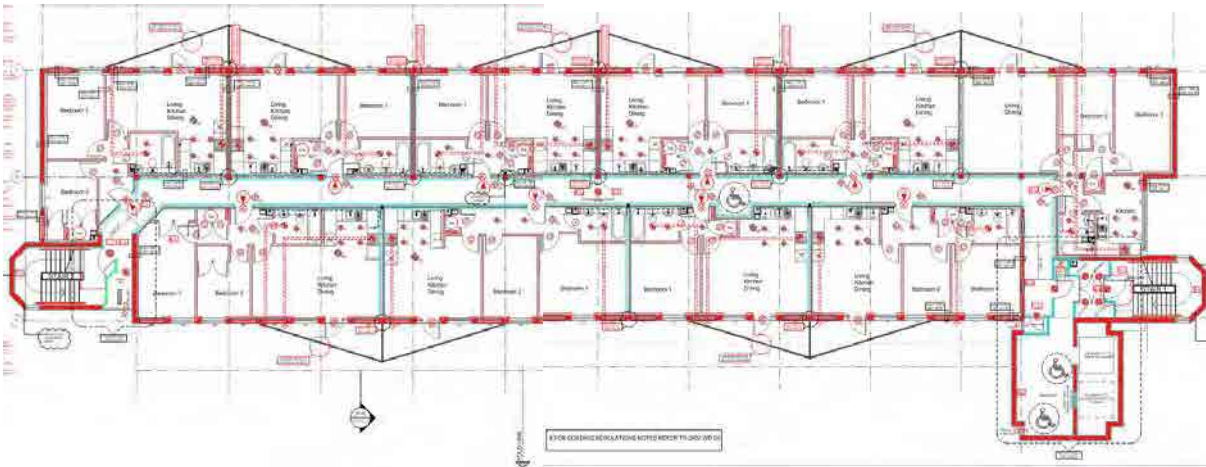


Figure 2.1 Typical floor arrangement – Levels 1-4

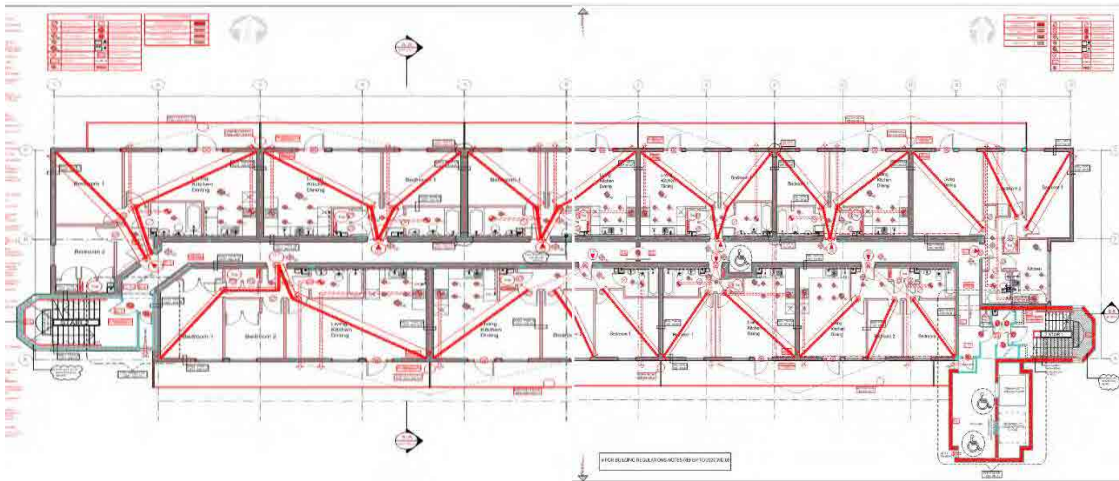


Figure 2.2 Typical floor arrangement – Levels 5-6

The external wall systems for the building are generally of three main types:

1. WS1 – Pre-Cast Large Panel System,
2. WS2 – Render on Blockwork Wall System, and
3. WS3 – HPL Cladding System.

There are multiple cantilever balcony stacks which span the building's height, they are of steel 'bolt on' construction with exposed timber decking and steel fabricated balustrades and handrail.

3. Limitations, assumptions and liabilities

3.1 Design information

- 3.1.1 This document is based on the as built information provided by FAA, BB7's intrusive survey findings and assessments up to this time, and GAA Architects proposed construction details and specifications.

3.2 Limitations

This report deals explicitly with life safety and the regulatory requirements. Whilst fire safety measures introduced for compliance with the life safety objectives have a beneficial effect on reducing potential fire losses and extent of any consequential damage, it cannot be guaranteed that a fire will not start on the premises. In view of this, the opinion of the nominated insurance company and any other interested stakeholders should be sought.

Information, advice and intellectual property contained within this report is for sole use in connections with The Spectrum building only and should not be used in relation to any other building. The report is not for use of, or reliance on, by third parties and is considered at all stages to remain confidential even after issue to the client. Reproduction and wider circulation of the report should only be done in its entirety and with the express permission of the client.

This report makes recommendations based on observations made on site, and from information provided by FAA and GAA. Further issues typically arise as remedial construction progresses which may not have been foreseen in this report; BB7 are unable to take responsibility for these items.

This report aims to address Part B4(1) only and does not consider structural fire resistance.

3.3 Statutory authorities

This document may contain some in principal agreements already reached with the approving authorities. However, any agreements reached prior to a formal application under the Building Regulations or other relevant legislation must be considered as risk items until formally approved. Whilst these would have been negotiated and agreed in good faith, the approving authorities are not bound by them and they may therefore be subject to change.

All buildings in England and Wales must comply with the requirements of the Building Regulations 2010 Part B (fire safety) and the Building (Amendment) Regulations 2018. The regulations provide a series of functional objectives which must be satisfied for approval.

The functional objectives of the Building Regulations relevant to this report relate to:

- B4(1) – External Fire Spread.

Regulation 7(2) would also be applicable to this building as the building has an uppermost floor above 18m from the lowest adjacent ground level.

4. Legislation and Guidance

4.1 The Building Regulations 2010

All buildings in England and Wales, other than those exempt in Schedule 2, are subject to The Building Regulations 2010, where building work, as defined in Regulation 3, is undertaken. It is our opinion that the proposed building work associated with the remedial work would constitute a material alteration, as such should comply with the relevant requirements of Schedule 1, or where the building did not comply with the relevant requirements of Schedule 1, or where the building did not comply, be no more unsatisfactory following the work. For the purpose of our scoping report, the relevant requirements are:

- B4(1) The external walls of the building shall adequately resist the spread of fire over the walls from one building to another, having regard to the height, use and position of the building.

It should be noted that while Regulation 3 of The Building Regulations 2010 requires building work which is considered to be a material alteration to be no more unsatisfactory than before work was undertaken. The Building (Amendment) Regulation 2018, Regulation 7(2) applies and supersedes Regulation 3, in regard to materials which become part of the external wall or specified attachments.

4.2 The Building (Amendment) Regulation 2018

For relevant buildings, as defined in Regulation 7(4) building work shall be carried out so that materials which become part of the external wall, or specific attachment, of a relevant building are of European Classification A2 s1, d0 or A1 classified in accordance with BS EN 13501 1:2018 entitled 'Fire Classification of Construction Products and Building Elements. Classification using test data from reaction to fire tests'.

The Spectrum building is above 18m and considered a relevant building under the aforementioned regulations.

4.3 The Building (Amendment) Regulation 2022

Regulation 7(1A) states that building work shall be carried out so that relevant metal composite materials do not become part of the external walls.

Relevant metal composite materials are defined as any panel or sheet of no more than 10mm, which is comprised of a number of layers:

1. Two or more of which are made of metal, alloy or metal compound; and
2. One or more of which is substantial and is made of material having a gross calorific value of more than 35MJ/kg when tested in accordance with BS EN ISO 1716:2018.

The above would also be applicable to this building.

4.4 Approved Document B Volume 1

The current iteration of Approved Document B Volume 1 (ADB1) is the 2019 edition incorporating the 2020 and 2022 amendments. The following are the pertinent sections of the guidance in relation to resisting fire spread over external walls.

Section 10: Resisting fire spread over and within external walls

The guidance within the Approved Document outlines two routes to meeting the function requirement B4(1), for buildings other than those described in Regulation 7(4). Either following the provisions given in Paragraphs 10.5 to 10.9 or by meeting the performance criteria in BR 135 for external walls using BS 8414 1/BS 8414/2 full scale test data.

For the purpose of this outline scoping report, the BR 135 route is not considered appropriate and the recommendations within this report are based on the provisions in paragraph 10.5 to 10.9.

Paragraph 10.5 provides guidance on external surfaces of external walls. The provisions are outlined in Table 10.1 (see extract in Figure 4.1). For buildings more than 1 m in height, when measured in accordance with ADB v1 Table 10.1, reaction to fire performance of external surfaces of walls should achieve Class A2 s1, d0 or better.

Table 10.1 Reaction to fire performance of external surface of walls			
Building type	Building height	Less than 1000mm from the relevant boundary	1000mm or more from the relevant boundary
'Relevant buildings' as defined in regulation 7(4) (see paragraph 10.14)		Class A2-s1, d0 ⁽¹⁾ or better	Class A2-s1, d0 ⁽¹⁾ or better
All 'residential' purpose groups (purpose groups 1 and 2)	More than 11m	Class A2-s1, d0 ⁽²⁾ or better	Class A2-s1, d0 ⁽²⁾ or better
	11m or less	Class B-s3, d2 ⁽²⁾ or better	No provisions
Assembly and recreation	More than 18m	Class B-s3, d2 ⁽²⁾ or better	From ground level to 18m: class C-s3, d2 ⁽³⁾ or better From 18m in height and above: class B-s3, d2 ⁽²⁾ or better
	18m or less	Class B-s3, d2 ⁽²⁾ or better	Up to 10m above ground level: class C-s3, d2 ⁽³⁾ or better Up to 10m above a roof or any part of the building to which the public have access: class C-s3, d2 ⁽³⁾ or better ⁽⁴⁾ From 10m in height and above: no minimum performance
Any other building	More than 18m	Class B-s3, d2 ⁽²⁾ or better	From ground level to 18m: class C-s3, d2 ⁽³⁾ or better From 18m in height and above: class B-s3, d2 ⁽²⁾ or better
	18m or less	Class B-s3, d2 ⁽²⁾ or better	No provisions
NOTES: In all cases all the following provisions apply. <ul style="list-style-type: none"> Regulation 7(1A) prohibits the use of relevant metal composite materials in the external walls, and specified attachments, of all buildings of any height (see paragraphs 10.11 and 10.12). The advice in paragraph 10.4 should always be followed. In addition to the provisions within this table, buildings with a storey 18m or more above ground level should also meet the provisions of paragraph 10.6. In addition to the provisions within this table, buildings with a storey 11m or more above ground level should also meet the provisions of paragraph 10.7. <ol style="list-style-type: none"> The restrictions for these buildings apply to all the materials used in the external wall and specified attachments (see paragraphs 10.13 to 10.16 for further guidance). Profiled or flat steel sheet at least 0.5mm thick with an organic coating of no more than 0.2mm thickness is also acceptable. Timber cladding at least 9mm thick is also acceptable. 10m is measured from the top surface of the roof. 			

Figure 4.1 Extract from AD B Vol 1 Table 10.1 2019 edition (incorporating 2020 and 2022 amendments)

The provisions within paragraph 10.7 states for residential buildings (purpose group 1 and 2) over 1 m in height, any insulation product, filler materials (such as the core materials of metal composite panels, sandwich panels and window spandrel panels but not including gaskets, sealants or similar) etc. used in the construction of an external wall should be Class A2 s1, d0 or better.

Note: this restriction does not apply to masonry cavity wall construction which complies with Diagram 8.2 in Section 8, however, Regulation 7(2) would supersede this.

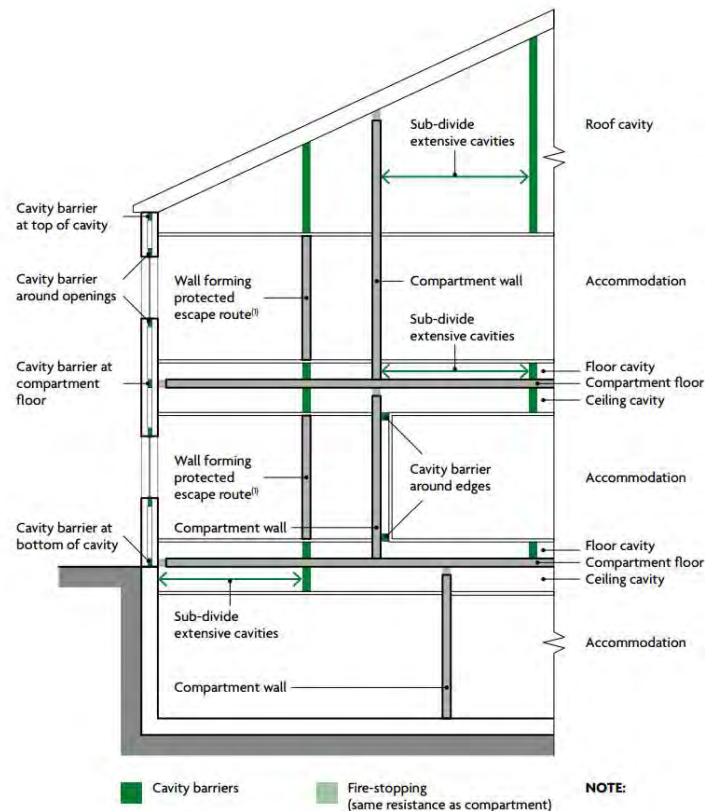
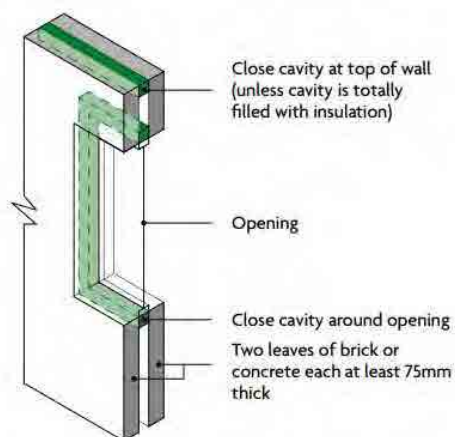


Figure 4.2 Extract from AD B Vol1 Diagram 8.1

The provisions in Paragraph 10.9 refers to cavity barriers. Cavity barriers should be provided in accordance with Section 5 in AD B Volume 1 Section 8. External wall construction which meets the criteria in AD B Volume Diagram 8.2 are exempt from the cavity barrier provisions within AD B.



NOTES:

1. Materials used to close the cavity in this arrangement do not need to achieve a specific performance in relation to fire resistance.
2. Domestic meter cupboards may be installed provided that the following conditions are met:
 - a. There are no more than two cupboards per dwelling
 - b. The openings in the outer wall leaf are not bigger than 800×500mm for each cupboard
 - c. The inner leaf is not penetrated except by a sleeve not more than 80×80mm, which is fire-stopped.
3. Materials achieving class B-s3, d2 or worse may be placed within the cavity.

Figure 4.3 Extract from AD B Vol 1 Diagram 8. 2

5. Proposed Remedial Work

5.1 Remediation Scope

1. As per the findings and recommendations following BB7 intrusive inspection (*BB-DN-15751BC-01 Spectrum Dagenham – review of existing survey docs and findings from intrusive survey dates 2nd August 2023*), **Wall Type 1** solid concrete pre cast large panel system was identified to level's 0 4.

BB7 recommend no remediation works required to this external wall system in relation to rapid fire spread over the wall.

2. As per the findings and recommendations following BB7 intrusive inspection, **Wall Type 2** render and concrete masonry was identified to level's 5 6.

BB7 recommend no remediation works required to this external wall system.

3. As per the findings and recommendations following BB7 intrusive inspection, it was observed the spandrel panels across the whole building were combustible PVC with EPS insulation core, these combustible panels construction could contribute to vertical fire spread where installed across the elevation line.

BB7 recommend the existing spandrel panels should be replaced with non combustible alternative panel which achieves A2 s1, d0 or better reaction to fire performance to BS 13501 :2018 to reduce the risk of lateral fire spread to the external wall system.

4. As per the findings and recommendations following BB7 intrusive inspection, to levels 5 6, the external wall system to the higher levels incorporates a high pressure laminate panel fixed to a timber frame superstructure. The horizontal cavity barriers were in a poor condition and not fit for purpose or ability to function as a cavity barrier, with a risk of vertical fire spread across the façade, both above and the risk of flaming droplets creating secondary fire spread to the spandrel panels located to the lower levels.

BB7 recommend the existing external wall systems are replaced with non combustible rainscreen panel system, with suitable cavity barrier provisions installed (E30/I15) around window opening and to the floor and vertical compartment lines to reduce the risk of vertical fire spread to the façade. BB7 also advise the combustible oriented strand board is removed and replaced with sheathing board which achieves A1. The structural engineer will need to be consulted to determine whether this would have an impact structurally. It may be necessary for the OSB to remain in place and overboard with an A1 product.

5. As per the findings and recommendations following BB7 intrusive inspection, to the roof level, it was observed a shiplap timber cladding system is installed to the head of the parapet wall system. No evidence of cavity barriers installed between the timber cladding and OSB substrate was observed, this poses a risk of horizontal fire spread along the parapet wall line due to the PV present on the roof.

BB7 recommend the existing shiplap timber cladding is replaced with a non combustible cladding panel to reduce the risk of horizontal fire spread across the roof line, and cavity barriers are provided on the line of compartment walls and to the head of the cavity.

5.2 Proposed Remedial Work

Spandrel Panels

The project architect (GAA) has submitted proposals in line with the remedial scope report, specifying replacement with non combustible spandrel panels to levels 5 and level 6 only. The scope specifies non-combustible 36mm Mettaline "Ultima" PPC aluminium clad FR insulated spandrel panels.

BB7 advise the stacked spandrel panels at all levels are replaced as part the remedial programme of works and the junction with any compartment wall (where present behind the spandrel) should be appropriately fire stopped.

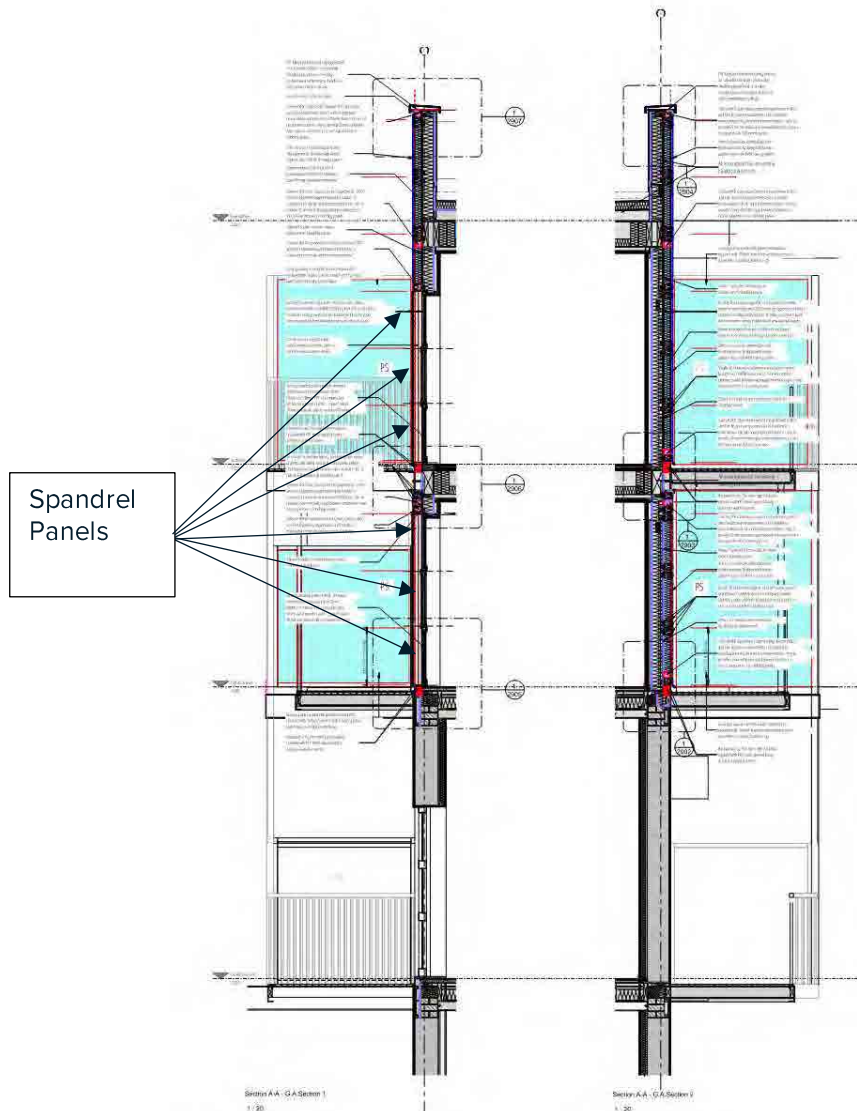


Figure 5.1 Spandrel Panels

HPL Cladding

The existing HPL cladding is to be removed back to the timber superstructure along with the support batten system.

BB7 understand the architect has chosen to specify 3mm Vitradual non combustible rivet fixed aluminium cladding which is Class A1 when classified in accordance with BS EN 1350 1:, with a metal support frame which is non combustible. The panels will be supported with Vitrafix VF1 Aluminium helping handrail carrier system. The OSB sheathing board will be replaced with Valcan ProcellaPro 12mm calcium silicate board system which achieves Class A1 to BS EN 13501 1:2018 (with a calorific value of 0.85MJ/kg).

BB7 consider that the proposed cladding and sheathing board system meets the functional requirements and is supported from an EWS1 perspective.

Timber Shiplap Cladding to the head of the parapet wall system

The existing timber shiplap cladding is to be removed to the timber superstructure along with the support batten system.

On the architects (GAA) drawings, there are currently no comments on the location of vertical cavity barriers or reference to the replacement of the existing shiplap timber cladding system to the head of the parapet wall system.

BB7 advise the existing cladding is replaced with a non combustible cladding panel and suitable horizontal cavity barrier provisions are installed and vertical cavity barriers installed at the line of compartment wall lines with cavity barriers achieving EI 30/15 minutes.

Horizontal Cavity Barriers Compartment floor junctions within the HPL cladding system

Siderise RH cavity barriers are currently shown as intended for use at the compartment floor lines to level 5 and level 6, however, the exact cavity barrier specification has not been highlighted within the technical data sheet. BB7 consider the product should achieve 30 minutes integrity and 15 minutes insulation requirement for barriers that would be expected here. Although the timber frame construction is present, the sheathing will be replaced with an A1 calcium silicate sheathing board and therefore this is not expected to have a detrimental impact on the performance of the cavity barrier. The cavity barrier should be continuous horizontally and not be interrupted by the balconies.

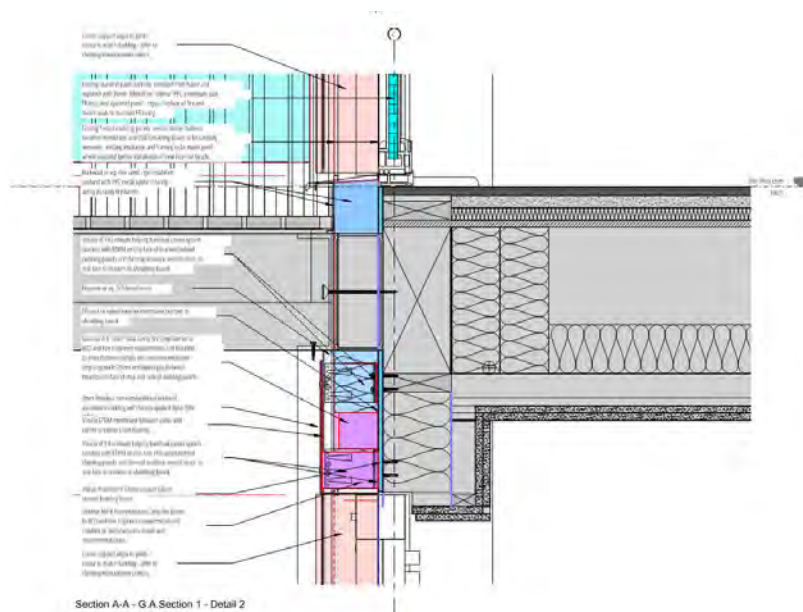


Figure 5.2 Compartment Floor Line Barrier

Horizontal Cavity Barriers – Closing the edges of openings within the HPL Cladding System

Siderise RH cavity barriers for ventilated cladding are also currently shown as intended for use to close the edges of openings to level 5 and level 6, however, the exact cavity barrier specification has not been highlighted within the technical specification document.

BB7 consider the product should achieve 30 minutes integrity and 15 minutes insulation requirement for barriers that would be expected here, the product chosen for installation must achieve E30 I15 performance requirements that would be expected here. The open state cavity barriers are tested to the ASFP TGD 19 method and also have third party certification for rainscreen cavity barriers, IFC certification IFCC 1712.

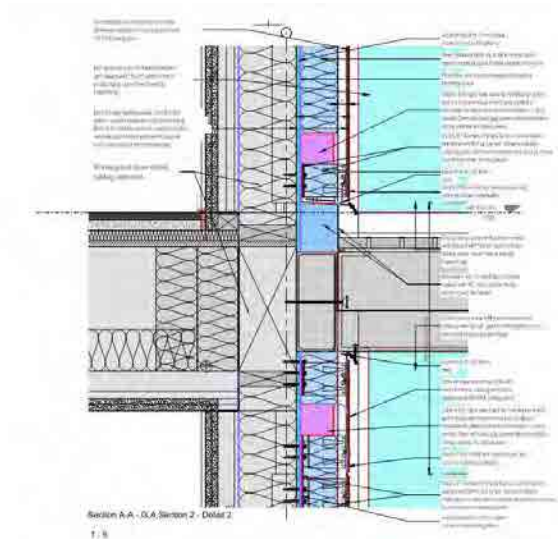


Figure 5.3 Closing the Edges of Openings Barrier

Horizontal Cavity Barriers – Head of the Parapet Wall System

At the head of the parapet wall system proposes Siderise RH open state cavity barrier with fire classification however, the exact cavity barrier specification has not been highlighted within the technical document intended to the head of the parapet wall system. The open state cavity barriers are tested to the ASFP TGD 19 method and also have third party certification for rainscreen cavity barriers, IFC certification IFCC 1712.

BB7 consider the product should achieve the 30 minutes integrity and 15 minutes insulation requirement for barriers that would be installed to this location. The cavity barrier will seal the cavity at this location.

On the architects (GAA) drawings, there are currently no comments on the location of vertical cavity barriers or reference to the replacement of the existing shiplap timber cladding system to the head of the parapet wall system.

BB7 advise the existing cladding is replaced with a non combustible cladding panel and suitable horizontal cavity barrier provisions are installed and vertical cavity barriers installed at the line of compartment wall lines with cavity barriers achieving EI 30/15 minutes.

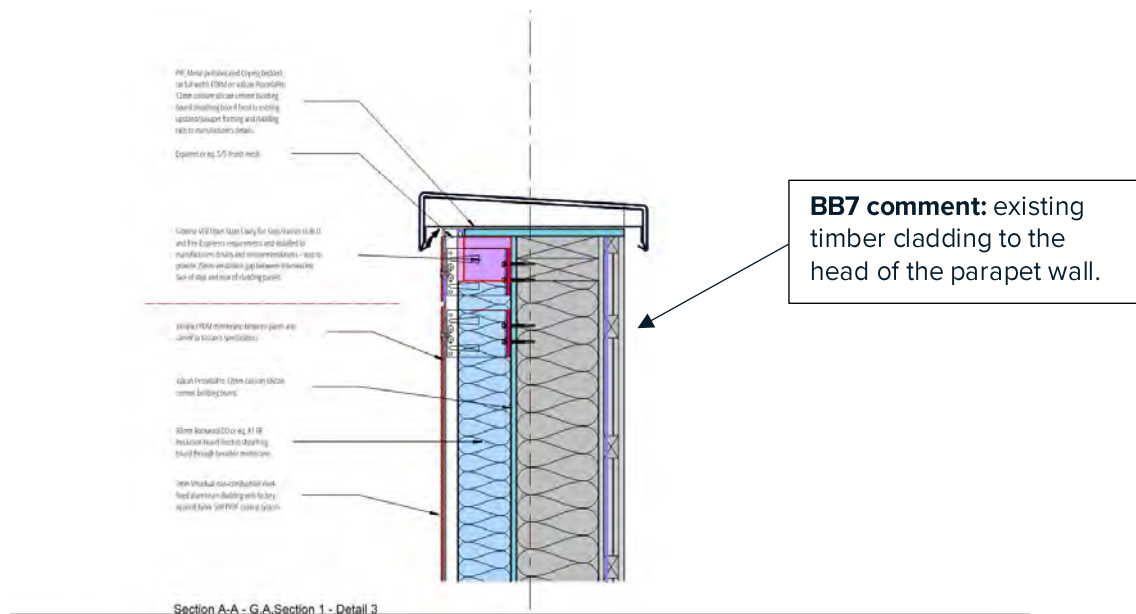


Figure 5.4 Parapet Wall System

Vertical Cavity Barriers - Closing the edges of openings within the HPL Cladding System

Siderise RV vertical cavity barriers for cladding with fire classification EI 90/30 barriers are currently shown as intended around window and door openings. BB7 consider this product is suitable as they achieve above the minimum 30 minutes integrity and 15 minutes insulation requirement for barriers that would be installed to this location.



Figure 5.5 Window and Door Cavity Barrier Provisions

Vertical Cavity Barriers – Compartment wall junctions within the HPL cladding system

Siderise RV vertical cavity barriers for cladding with fire classification EI 90/30 barriers are currently shown as intended around window and door openings. BB7 consider this product is suitable as they achieve above the minimum 30 minutes integrity and 15 minutes insulation requirement for barriers that would be installed to this location.

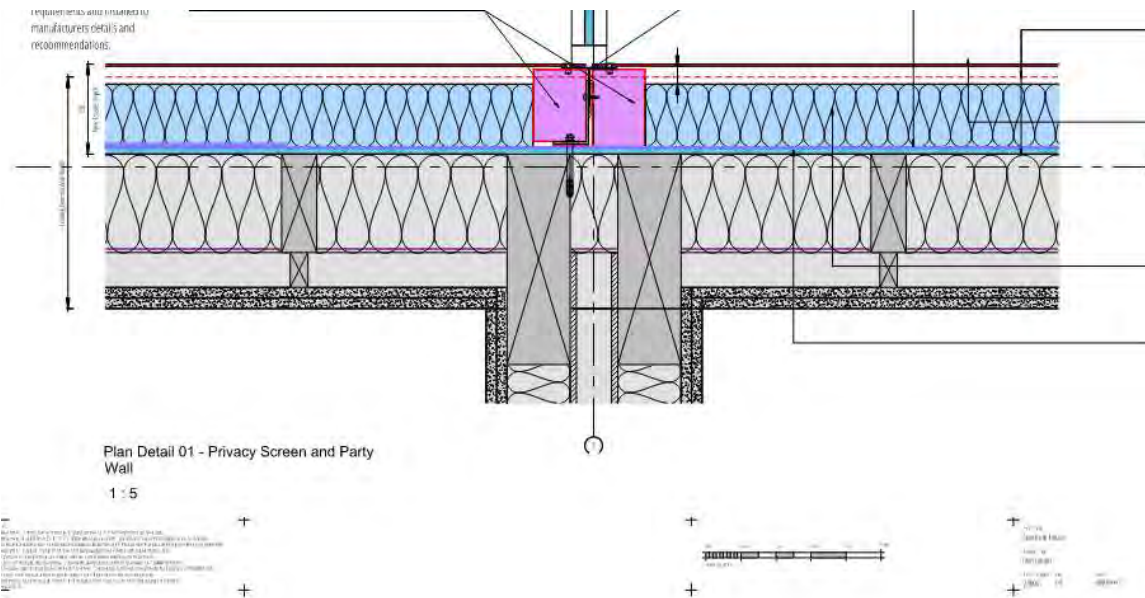


Figure 5.6 Compartment Wall Line Barrier

6. Conclusions and Recommendations

BB7 have conducted a review of the façade design information provided by the client and made comments where appropriate.

BB7 have opted to apply the guidance contained in Approved Document B (fire Safety) Volume 1: dwellings: 2019 (incorporating 2020 and 2022 amendments). BB7 can draw the following conclusions:

1. BB7 advise additional remedial works is completed to the shiplap cladding installed to the head of the parapet wall to the roof line. Further details to be provided by architects GAA for the proposed wall system.
2. Subject to item 1 above, based on the materials proposed and the information provided to date, the proposed external wall systems would be considered to be in accordance with the guidance in AD B and meet the function requirement B4(1).
3. BB7 consider the proposed cavity barrier strategy to be in line with the guidance, with cavity barriers provided in relevant locations.
4. Subject to item 1 above, BB7 consider the proposed remedial works presented in this report would satisfy the relevant functional requirements of the Building Regulations and would not result in a material alteration of the building following completion of the work.
5. BB7 will be monitoring the construction of the replacement external wall system and will provide ad-hoc advise on proposed systems as they arise. Subject to work being carried out in line with our expectations, following completion of the remedial work BB7 would expect the outcome of the EWS1 assessment, carried out in accordance with the methodology within PAS 9980:2022, to be Option B . The outcome recognises the superstructure to levels 5 6 is timber framed which will not achieve A2 s3,d2.

6.1 Interim measures

Although remedial work is considered to be necessary in order to reduce the risk to tolerable in the short term. It is not considered necessary to implement short term interim measures. Subject to the work being undertaken within the next 12 months.

7. Appendix A - Zutec Survey Data

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where people, businesses
and communities thrive.

Inspection Register - 15751BC Spectrum Dagenham

Item No: 1

Inspection Date: 2023-06-28 10:33:00

Report created by: [REDACTED]

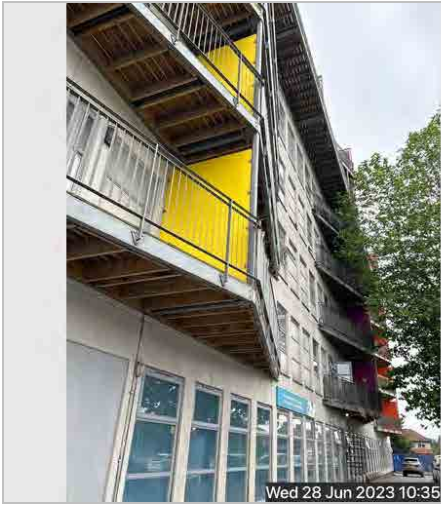
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Local timezone: Europe/London

Item No	Inspection Date	Floor Level	Location	Inspection Category	Inspection Element	Comments	Inspector	Date Reviewed	Risk Rating
1	28/06/2023 10:33	Ground	Front street elevation	External	Balconies	<p>The balconies are classed as a attachment to the building from level 1 to level 6.</p> <p>Timber secondary structure and decking in between steel balcony structure. Balconies vertically aligned and horizontally aligned above the fourth floor.</p>	[REDACTED]	28/06/2023 10:32	

Review History

Thursday 29 June 2023 04:21 PM - Closed by [REDACTED]



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Thursday 29 June 2023 11:11 AM



Filename: 28_06_2023_10_37_15_TIWC.jpg
Thursday 29 June 2023 11:11 AM

Inspection Register - 15751BC Spectrum Dagenham

Item No: 2

Inspection Date: 2023-06-28 10:58:00

Report created by:

Report Timestamp: Friday 04 August 2023 03:17 PM

Local timezone: Europe/London

Item No	Inspection Date	Floor Level	Location	Inspection Category	Inspection Element	Comments	Inspector	Date Reviewed	Risk Rating
2	28/06/2023 10:58	Ground	Front street elevation	External	Cladding	<p>General view of the elevation from the roadside.</p> <p>The building incorporates the following external wall system's:</p> <ol style="list-style-type: none">1. Pre-cast large concrete panel system,2. Rainscreen cladding panels on timber frame, and3. Render on blockwork.		28/06/2023 10:58	

Review History

Thursday 29 June 2023 04:21 PM - Closed by



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Inspection Register - 15751BC Spectrum Dagenham

Item No: 3

Inspection Date: 2023-06-28 11:01:00

Report created by:

Local timezone: Europe/London

Report Timestamp: Friday 04 August 2023 03:17 PM

Item No	Inspection Date	Floor Level	Location	Inspection Category	Inspection Element	Comments	Inspector	Date Reviewed	Risk Rating
3	28/06/2023 11:01	Ground	Side elevation	External	Cladding	General view of side elevation. The wall systems are as follows: 1. Pre-cast large concrete panel system. 2. Rainscreen cladding panels on timber frame. 3. Render on blockwork.		28/06/2023 11:01	

Review History

Thursday 29 June 2023 04:21 PM - Closed by



Inspection Register - 15751BC Spectrum Dagenham

Item No: 4
Inspection Date: 2023-06-28 11:04:00

Report created by: [REDACTED]

Report Timestamp: Friday 04 August 2023 03:17 PM

Local timezone: Europe/London

Item No	Inspection Date	Floor Level	Location	Inspection Category	Inspection Element	Comments	Inspector	Date Reviewed	Risk Rating
4	28/06/2023 11:04	Ground	Rear elevation	External	Cladding	General view of rear elevation. The wall systems are as follows: 1. Pre-cast large concrete panel system. 2. Rainscreen cladding panels on timber frame. 3. Render on blockwork.	[REDACTED]	28/06/2023 11:03	

Review History

Thursday 29 June 2023 04:21 PM - Closed by [REDACTED]



Inspection Register - 15751BC Spectrum Dagenham

Item No: 5
Inspection Date: 2023-06-28 11:05:00

Report created by: [REDACTED]

Report Timestamp: Friday 04 August 2023 03:17 PM

Local timezone: Europe/London

Item No	Inspection Date	Floor Level	Location	Inspection Category	Inspection Element	Comments	Inspector	Date Reviewed	Risk Rating
5	28/06/2023 11:05	Ground	Side elevation	External	Cladding	General view of side elevation. The wall systems are as follows: 1. Pre-cast large concrete panel system. 2. Rainscreen cladding panels on timber frame. 3. Render on blockwork.	[REDACTED]	28/06/2023 11:05	

Review History

Thursday 29 June 2023 04:21 PM - Closed by [REDACTED]



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Thursday 29 June 2023 11:12 AM

Inspection Register - 15751BC Spectrum Dagenham

Item No: 6

Inspection Date: 2023-06-28 11:20:00

Report created by: [REDACTED]

Report Timestamp: Friday 04 August 2023 03:17 PM

Local timezone: Europe/London

Item No	Inspection Date	Floor Level	Location	Inspection Category	Inspection Element	Comments	Inspector	Date Reviewed	Risk Rating
6	28/06/2023 11:20	6	Rear elevation balcony	External	Cladding	<p><u>Inspection Opening 1</u></p> <p>The intrusive opening confirms the existing timber framed external wall system build-up and cavity barrier provisions around window and door opening.</p> <p>EXTERNAL LEAF</p> <ol style="list-style-type: none"> 1. Cladding: Vivalda rainscreen cladding panel c.8mm 2. Cavity: c.42mm between battens. 3. Breather membrane: c.0.05mm 4. Sheathing: Oriented Strand Board c.8mm 5. Mineral wool insulation: c.170mm loose fill. 6. Internal lining: Gypsum based plasterboard, assumed c.12.5mm. <p>INTERNAL LEAF</p>	[REDACTED]	28/06/2023 11:17	

Review History

Thursday 29 June 2023 04:21 PM - **Open** by [REDACTED]

Comments: TBD

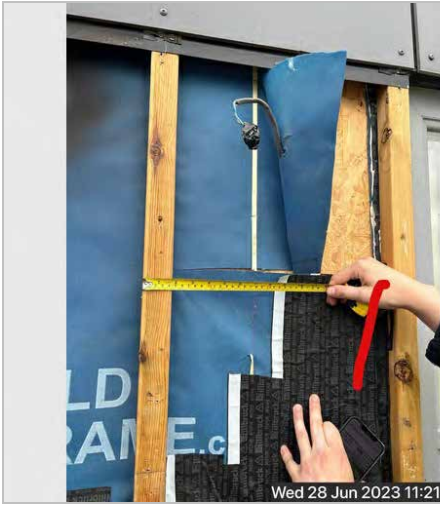
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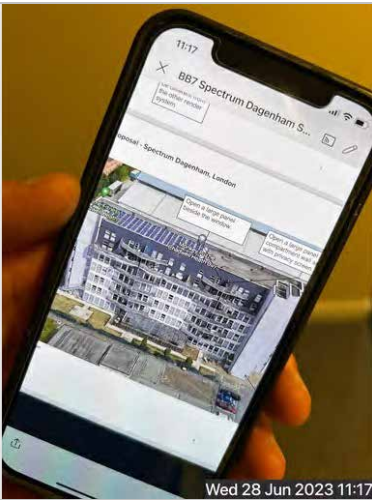
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Inspection Register - 15751BC Spectrum Dagenham

Item No: 7

Inspection Date: 2023-06-28 11:24:00

Report created by:

Report Timestamp: Friday 04 August 2023 03:17 PM

Local timezone: Europe/London

Item No	Inspection Date	Floor Level	Location	Inspection Category	Inspection Element	Comments	Inspector	Date Reviewed	Risk Rating
7	28/06/2023 11:24	6	Rear elevation balcony	External	Cladding	<u>Inspection Opening 1</u> Around the window and door opening incorporates a timber stud within cavity at the reveal. The timber stud forms a cavity closer around the opening.		28/06/2023 11:23	

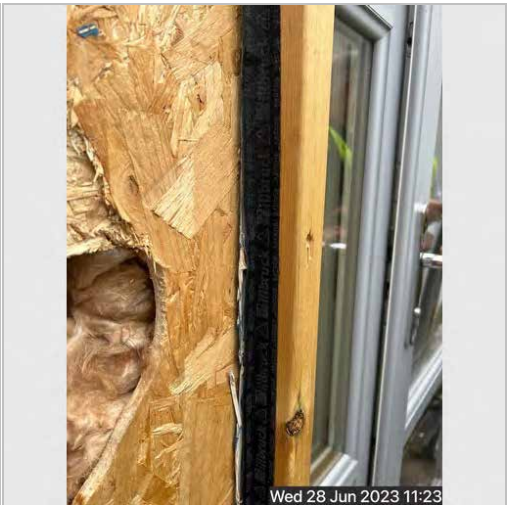
Review History

Thursday 29 June 2023 04:21 PM - Open by

Comments: TBD



Filename: 28_06_2023_11_25_07_4923.jpg
Thursday 29 June 2023 11:14 AM



Filename: 28_06_2023_11_25_07_Q43Y.jpg
Thursday 29 June 2023 11:14 AM

Inspection Register - 15751BC Spectrum Dagenham

Item No: 8

Inspection Date: 2023-06-28 11:25:00

Report created by:

Report Timestamp: Friday 04 August 2023 03:17 PM

Local timezone: Europe/London

Item No	Inspection Date	Floor Level	Location	Inspection Category	Inspection Element	Comments	Inspector	Date Reviewed	Risk Rating
8	28/06/2023 11:25	6	Rear elevation balcony	External	Cladding	<u>Inspection Opening 1</u> General view of the PVC ventilated ductwork which penetrates the external wall system introducing a combustible material into the cavity. No evidence of dampers installed.		28/06/2023 11:25	

Review History

Thursday 29 June 2023 04:21 PM - Open by

Comments: TBD



Filename: 28_06_2023_11_27_28_WVZA.jpg
Thursday 29 June 2023 11:14 AM



Filename: 28_06_2023_11_27_28_AID.jpg
Thursday 29 June 2023 11:14 AM

Inspection Register - 15751BC Spectrum Dagenham

Item No: 9

Inspection Date: 2023-06-28 11:28:00

Report created by:

Report Timestamp: Friday 04 August 2023 03:17 PM

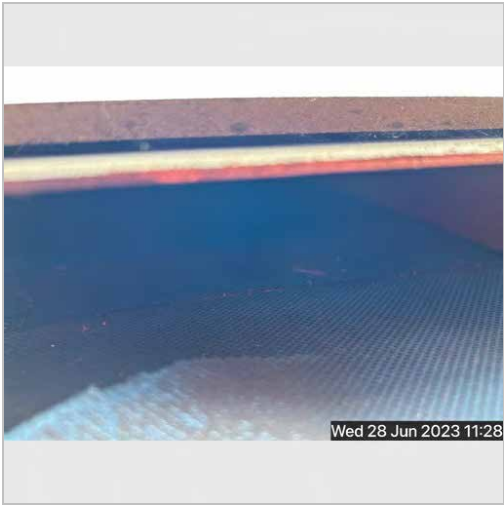
Local timezone: Europe/London

Item No	Inspection Date	Floor Level	Location	Inspection Category	Inspection Element	Comments	Inspector	Date Reviewed	Risk Rating
9	28/06/2023 11:28	6	Rear elevation balcony	External	Cladding	<u>Inspection Opening 1</u> It was recorded c.10mm gaps between the rainscreen panels both in the vertical and horizontal positions.		28/06/2023 11:27	

Review History

Thursday 29 June 2023 04:21 PM - Open by

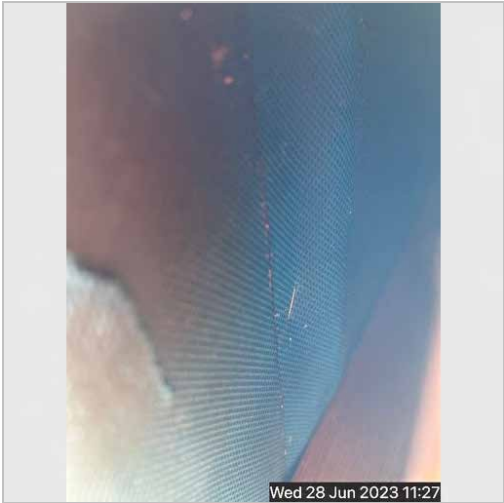
Comments: TBD



Filename: 28_06_2023_11_29_53_3RVR.jpg
Thursday 29 June 2023 11:14 AM



Filename: 28_06_2023_11_29_53_6HZ8.jpg
Thursday 29 June 2023 11:14 AM



Filename: 28_06_2023_11_29_54_RL6H.jpg
Thursday 29 June 2023 11:14 AM

Inspection Register - 15751BC Spectrum Dagenham

Item No: 10

Inspection Date: 2023-06-28 11:35:00

Report created by:

Report Timestamp: Friday 04 August 2023 03:17 PM

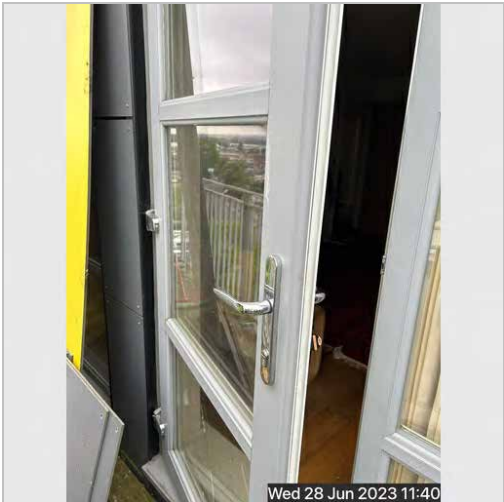
Local timezone: Europe/London

Item No	Inspection Date	Floor Level	Location	Inspection Category	Inspection Element	Comments	Inspector	Date Reviewed	Risk Rating
10	28/06/2023 11:35	6	Front street elevation	External	Cladding	<p><u>Inspection Opening 2</u></p> <p>The intrusive opening confirms the existing timber framed external wall system build-up and cavity barrier provisions at the vertical compartment wall line between two apartments.</p> <p>EXTERNAL LEAF</p> <ol style="list-style-type: none">1. High Pressure Laminate: c.10mm2. Cavity: c.75mm3. Weather Membrane: c.0.05mm4. Oriented Strand Board: c.20mm5. Mineral Wool Insulation (loose fill): c.50mm6. Inner Gypsum Based Plasterboard: c.12.5mm <p>INTERNAL LEAF</p> <p><u>Cavity Barrier Provisions</u></p> <p>Within the rainscreen cladding cavity, Tenmat intumescent strips were installed in the vertical orientation, due to the size of the cavity, the performance of the intumescent strips would not provide sufficient protection from flame and smoke spread.</p> <p>It was observed that timber studwork (approx. 50mm) is located on the party wall line, which forms the function of a cavity barrier to the end of the party wall structure. The partition cavity at the line of the junction with the external wall system incorporates medium density slabs to close the cavity.</p> <p>It was noted for the floor line, a Mayplas cavity sock (red) was installed to the horizontal compartment line, installed under compression between the timber joists.</p> <p>Around the balcony stub brackets, no cavity barrier provisions were installed around the junction with the floor line.</p>		28/06/2023 11:29	

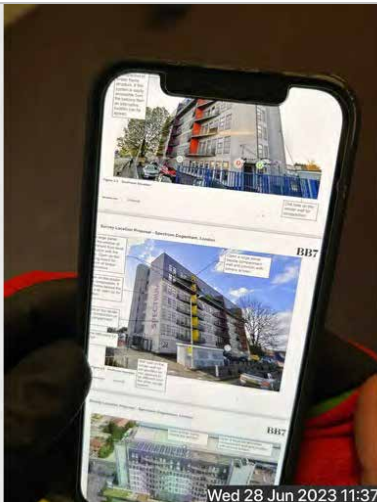
Review History

Thursday 29 June 2023 04:21 PM - Open by

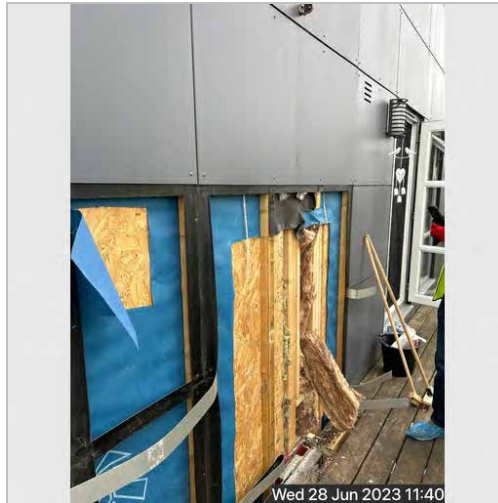
Comments: Initial review



Filename: 28_06_2023_11_41_04_5PZ8.jpg
Thursday 29 June 2023 11:15 AM



Filename: 28_06_2023_11_41_04_INY8.jpg
Thursday 29 June 2023 11:15 AM



Filename: 28_06_2023_11_41_04_X369.jpg

Thursday 29 June 2023 11:15 AM

Inspection Register - 15751BC Spectrum Dagenham

Item No: 11

Inspection Date: 2023-06-28 11:41:00

Report created by: [REDACTED]

Report Timestamp: Friday 04 August 2023 03:17 PM

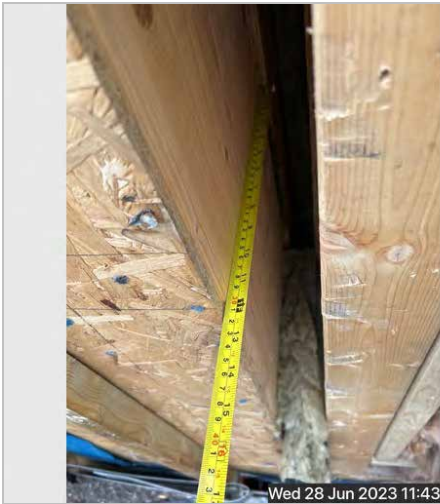
Local timezone: Europe/London

Item No	Inspection Date	Floor Level	Location	Inspection Category	Inspection Element	Comments	Inspector	Date Reviewed	Risk Rating
11	28/06/2023 11:41	6	Front street elevation	External	Cladding	<p><u>Inspection Opening 2</u></p> <p>A intrusive opening was completed to the compartment wall junction line. Central cavity with mineral infill, with 300mm timber studs at either side.</p> <p>Within the rainscreen cladding cavity, Tenmat intumescent strips were installed in the vertical orientation, due to the size of the cavity, the performance of the intumescent strips would not provide sufficient protection from flame and smoke spread.</p>	[REDACTED]	28/06/2023 11:41	

Review History

Thursday 29 June 2023 04:21 PM - **Open** by [REDACTED]

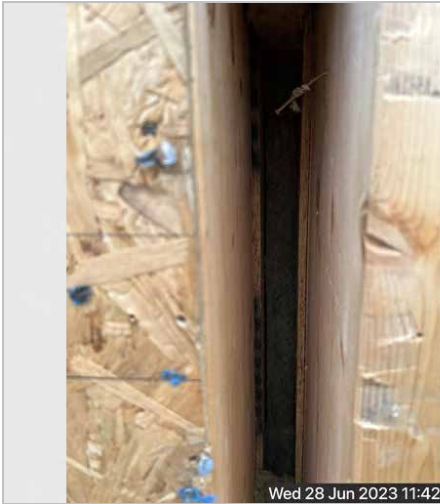
Comments: Under review



Filename: 28_06_2023_11_44_25_ZZ14.jpg
Thursday 29 June 2023 11:15 AM



Filename: 28_06_2023_11_44_25_HDAI.jpg
Thursday 29 June 2023 11:15 AM



Filename: 28_06_2023_11_44_25_KJFQ.jpg
Thursday 29 June 2023 11:15 AM

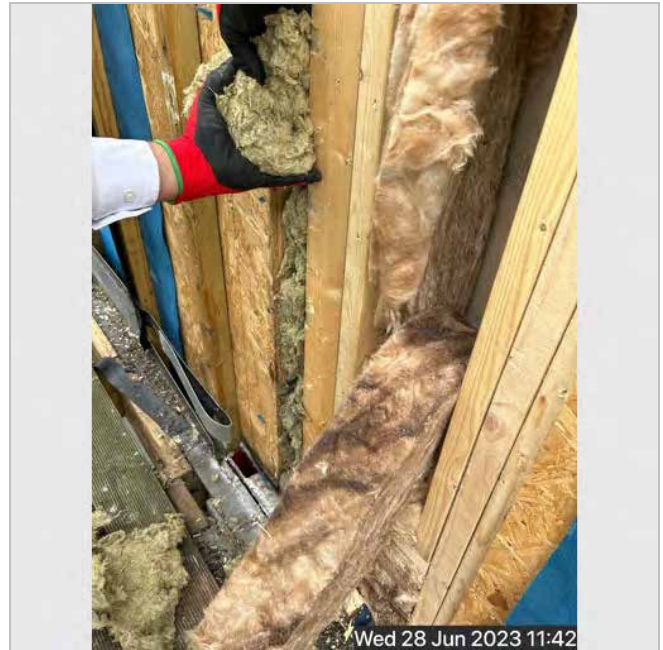


Filename: 28_06_2023_11_44_25_P3YI.jpg
Thursday 29 June 2023 11:15 AM



Filename: 28_06_2023_11_44_25_WFAH.jpg

Thursday 29 June 2023 11:16 AM



Filename: 28_06_2023_11_44_25_QFK.jpg

Thursday 29 June 2023 11:16 AM

Inspection Register - 15751BC Spectrum Dagenham
Item No: 12
Inspection Date: 2023-06-28 11:46:00
Report created by:
Local timezone: Europe/London

Report Timestamp: Friday 04 August 2023 03:17 PM

Item No	Inspection Date	Floor Level	Location	Inspection Category	Inspection Element	Comments	Inspector	Date Reviewed	Risk Rating
12	28/06/2023 11:46	6	Front street elevation	External	Cladding	<u>Inspection Opening 2</u> Wrapped Mayplas cavity sock runs on floor line back into the building.	 	28/06/2023 11:44	

Review History

Thursday 29 June 2023 04:21 PM - Open by
Comments: Under review.



Inspection Register - 15751BC Spectrum Dagenham

Item No: 13

Inspection Date: 2023-06-28 11:46:00

Report created by: [REDACTED]

Report Timestamp: Friday 04 August 2023 03:17 PM

Local timezone: Europe/London

Item No	Inspection Date	Floor Level	Location	Inspection Category	Inspection Element	Comments	Inspector	Date Reviewed	Risk Rating
13	28/06/2023 11:46		Balcony	External	Cladding	<p><u>Inspection Opening 2</u></p> <p>Cladding removed at compartment wall junction between apartments to form intrusive opening for inspection.</p> <p>EXTERNAL LEAF</p> <p>1. Oriented Strand Board: c.8mm</p> <p>2. Cavity: width measures c.75mm</p> <p>3. Mineral Wool Insulation (loose fill): c.160mm</p> <p>4. Vapour Control Layer: c.0.05mm</p> <p>5. Inner Gypsum Based Plasterboard: c.12.5mm</p> <p>INTERNAL LEAF</p> <p><u>Cavity Barrier Provisions</u></p> <p>Within the rainscreen cladding cavity, Tenmat intumescent strips were installed in the vertical orientation, due to the size of the cavity, the performance of the intumescent strips would not provide sufficient protection from flame and smoke spread.</p> <p>It was noted for the floor line, a Mayplas cavity sock (red) was installed to the horizontal compartment line, installed under compression between the timber joists.</p>	[REDACTED]	28/06/2023 11:46	

Review History

Thursday 29 June 2023 04:21 PM - Open by [REDACTED]

Comments: Under review



Filename: 28_06_2023_11_48_49_42P9.jpg
Thursday 29 June 2023 11:16 AM



Filename: 28_06_2023_11_48_49_GLJR.jpg
Thursday 29 June 2023 11:16 AM



Inspection Register - 15751BC Spectrum Dagenham

Item No: 14

Inspection Date: 2023-06-28 11:48:00

Report created by: [REDACTED]

Report Timestamp: Friday 04 August 2023 03:17 PM

Local timezone: Europe/London

Item No	Inspection Date	Floor Level	Location	Inspection Category	Inspection Element	Comments	Inspector	Date Reviewed	Risk Rating
14	28/06/2023 11:48	6	Front street elevation	External	Cladding	<u>Inspection Opening 2</u> EXTERNAL LEAF 1. Vivalda rain-screen cladding panel: c.8mm 2. Rubberised gasket 3. Cavity: c.45mm 4. Breather membrane: c.0.05mm. 5. OSB sheathing board: Unknown measurement.	[REDACTED]	28/06/2023 11:48	

Review History

Thursday 29 June 2023 04:21 PM - **Open** by [REDACTED]

Comments: TBD



Wed 28 Jun 2023 11:49

Filename: 28_06_2023_11_50_03_P0Q4.jpg

Thursday 29 June 2023 11:17 AM



Wed 28 Jun 2023 11:48

Filename: 28_06_2023_11_50_03_Q_0M.jpg

Thursday 29 June 2023 11:17 AM

Inspection Register - 15751BC Spectrum Dagenham

Item No: 15

Inspection Date: 2023-06-28 11:51:00

Report created by:

Report Timestamp: Friday 04 August 2023 03:17 PM

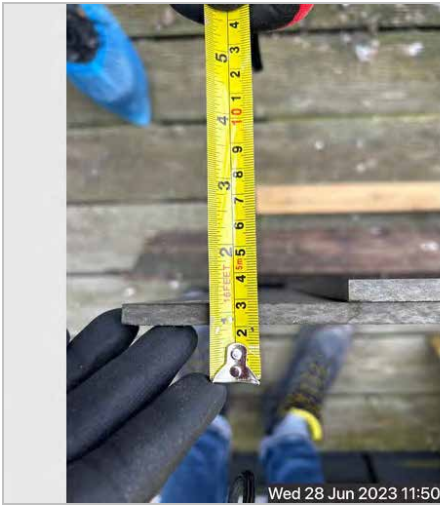
Local timezone: Europe/London

Item No	Inspection Date	Floor Level	Location	Inspection Category	Inspection Element	Comments	Inspector	Date Reviewed	Risk Rating
15	28/06/2023 11:51	6	Front street elevation	External	Cladding	<u>Inspection Opening 2</u> External cladding panel measures 8mm in thickness. Label to the rear of the panel confirmed it was manufactured by Vivalda.		28/06/2023 11:50	

Review History

Thursday 29 June 2023 04:21 PM - Open by

Comments: Under review



Filename: 28_06_2023_11_51_48_HO92.jpg
Thursday 29 June 2023 11:17 AM



Filename: 28_06_2023_11_51_48_OUPF.jpg
Thursday 29 June 2023 11:17 AM

Inspection Register - 15751BC Spectrum Dagenham

Item No: 16

Inspection Date: 2023-06-28 11:52:00

Report created by:

Report Timestamp: Friday 04 August 2023 03:17 PM

Local timezone: Europe/London

Item No	Inspection Date	Floor Level	Location	Inspection Category	Inspection Element	Comments	Inspector	Date Reviewed	Risk Rating
16	28/06/2023 11:52	6	Front street elevation	External	Cladding	<u>Balcony Privacy Screen</u> The high pressure laminate panel forming the balcony privacy screen was measured at c.10mm in thickness. The screen is mechanically suface fixed in position to the cladding and timber decking with brackets.		28/06/2023 11:51	

Review History

Thursday 29 June 2023 04:21 PM - Open by

Comments: TBD



Filename: 28_06_2023_11_52_49_B1D4.jpg
Thursday 29 June 2023 11:17 AM



Filename: 28_06_2023_11_52_49_LHEN.jpg
Thursday 29 June 2023 11:18 AM

Inspection Register - 15751BC Spectrum Dagenham
Item No: 17
Inspection Date: 2023-06-28 11:53:00

Report created by: [REDACTED]

Report Timestamp: Friday 04 August 2023 03:17 PM

Local timezone: Europe/London

Item No	Inspection Date	Floor Level	Location	Inspection Category	Inspection Element	Comments	Inspector	Date Reviewed	Risk Rating
17	28/06/2023 11:53	6	Front street elevation	External	Cladding	<u>Inspection Opening 2</u> General view of cavity above looking up towards the parapet wall. No evidence of cavity barrier provisions installed.	[REDACTED] [REDACTED]	28/06/2023 11:52	

Review History

Thursday 29 June 2023 04:21 PM - Open by [REDACTED]
Comments: TBD



Filename: 28_06_2023_11_54_15_UWSF.jpg
Thursday 29 June 2023 11:18 AM



Filename: 28_06_2023_11_54_15_YVDO.jpg
Thursday 29 June 2023 11:18 AM

Inspection Register - 15751BC Spectrum Dagenham

Item No: 18

Inspection Date: 2023-06-28 11:55:00

Report created by:

Report Timestamp: Friday 04 August 2023 03:17 PM

Local timezone: Europe/London

Item No	Inspection Date	Floor Level	Location	Inspection Category	Inspection Element	Comments	Inspector	Date Reviewed	Risk Rating
18	28/06/2023 11:55	6	Front street elevation	External	Cladding	<u>Inspection Opening 3</u> Below the Mayplas cavity sock installed to the floor line, it was observed compressed mineral wool between the timber floor joists and studwork below.		28/06/2023 11:54	

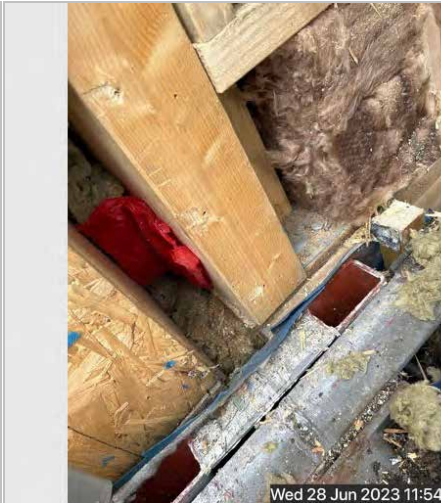
Review History

Thursday 29 June 2023 04:21 PM - Open by

Comments: Under review



Filename: 28_06_2023_11_56_06_9QTT.jpg
Thursday 29 June 2023 11:18 AM



Filename: 28_06_2023_11_56_06_B2VX.jpg
Thursday 29 June 2023 11:18 AM

Inspection Register - 15751BC Spectrum Dagenham

Item No: 19

Inspection Date: 2023-06-28 11:56:00

Report created by: [REDACTED]

Report Timestamp: Friday 04 August 2023 03:17 PM

Local timezone: Europe/London

Item No	Inspection Date	Floor Level	Location	Inspection Category	Inspection Element	Comments	Inspector	Date Reviewed	Risk Rating
19	28/06/2023 11:56	6	Front street elevation	External	Balconies	<u>Balconies</u> Timber decking was installed to the stacked cantilever balcony system. It was observed c.20mm hardwood decking system is in-situ, the material installed to the attachment is combustible.	[REDACTED]	28/06/2023 11:56	

Review History

Thursday 29 June 2023 04:21 PM - Open by [REDACTED]

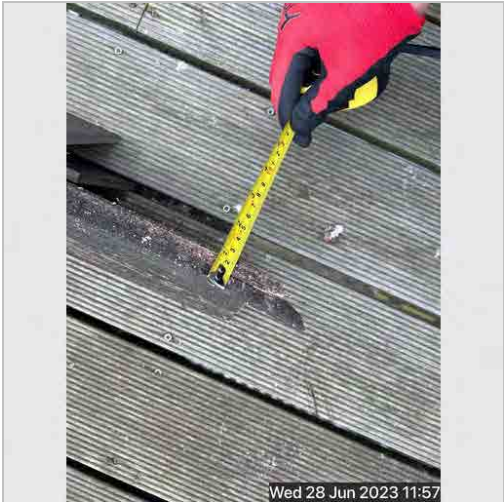
Comments: TBD



Filename: 28_06_2023_11_57_40_1SIK.jpg
Thursday 29 June 2023 11:18 AM



Filename: 28_06_2023_11_57_40_NVNN.jpg
Thursday 29 June 2023 11:19 AM



Filename: 28_06_2023_11_57_40_UHI1.jpg
Thursday 29 June 2023 11:19 AM

Inspection Register - 15751BC Spectrum Dagenham

Item No: 20

Inspection Date: 2023-06-28 12:01:00

Report created by: [REDACTED]

Report Timestamp: Friday 04 August 2023 03:17 PM

Local timezone: Europe/London

Item No	Inspection Date	Floor Level	Location	Inspection Category	Inspection Element	Comments	Inspector	Date Reviewed	Risk Rating
20	28/06/2023 12:01	6	Level 6	Fire Service	Dry main outlet	<u>Dry Riser Provisions</u> Dry riser outlet located in the lift lobby area. <u>Automatic Fire Detection and Alarm System</u> Fire detection present within the lift lobby area. <u>Emergency Lighting Provisions</u> Emergency lighting installed within the lift lobby area.	[REDACTED]	28/06/2023 12:01	

Review History

Thursday 29 June 2023 04:21 PM - Closed by [REDACTED]



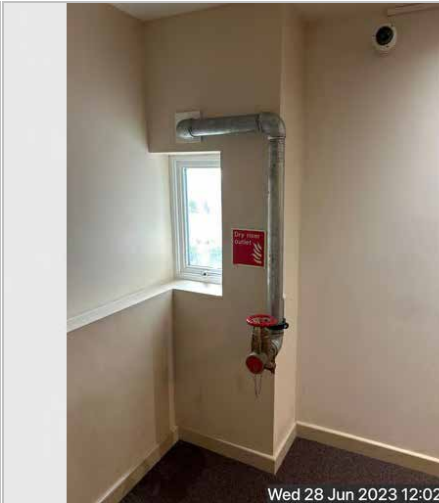
Filename: 28_06_2023_12_03_42_6JU.jpg
Thursday 29 June 2023 11:19 AM



Filename: 28_06_2023_12_03_42_BGDV.jpg
Thursday 29 June 2023 11:19 AM



Filename: 28_06_2023_12_03_42_HS6G.jpg
Thursday 29 June 2023 11:19 AM



Filename: 28_06_2023_12_03_42_W8P7.jpg
Thursday 29 June 2023 11:19 AM

Inspection Register - 15751BC Spectrum Dagenham

Item No: 21

Inspection Date: 2023-06-28 12:04:00

Report created by:

Report Timestamp: Friday 04 August 2023 03:17 PM

Local timezone: Europe/London

Item No	Inspection Date	Floor Level	Location	Inspection Category	Inspection Element	Comments	Inspector	Date Reviewed	Risk Rating
21	28/06/2023 12:04	7	Stair core	Active systems	AOV's	<u>Smoke Ventilation</u> No AOV installed to the head of stair. <u>Access</u> Lifts ascend to the roof level and lobby area. <u>Fire Door</u> Fire door to the stair has functioning self closing device, intumescent and smoke seals installed and hinges appear to be fire rated. Unable to confirm intumescent pads behind the hinges.		28/06/2023 12:03	

Review History

Thursday 29 June 2023 04:21 PM - Closed by



Filename: 28_06_2023_12_07_05_B3LN.jpg
Thursday 29 June 2023 11:20 AM



Filename: 28_06_2023_12_07_05_KVHQ.jpg
Thursday 29 June 2023 11:20 AM



Filename: 28_06_2023_12_07_05_RIH3.jpg
Thursday 29 June 2023 11:20 AM

Inspection Register - 15751BC Spectrum Dagenham

Item No: 22

Inspection Date: 2023-06-28 12:07:00

Report created by:

Report Timestamp: Friday 04 August 2023 03:17 PM

Local timezone: Europe/London

Item No	Inspection Date	Floor Level	Location	Inspection Category	Inspection Element	Comments	Inspector	Date Reviewed	Risk Rating
22	28/06/2023 12:07	6	Protected corridor.	Means of escape	Escape routes	<u>Automatic Fire Detection and Alarm System</u> Fire detection present within the lift lobby area. Manual call point located at the entrance to the second stair. <u>Emergency Lighting Provisions</u> Emergency lighting installed within the lift lobby area. <u>Emergency Escape Signage</u> Non-illuminated emergency escape signage installed.		28/06/2023 12:07	

Review History

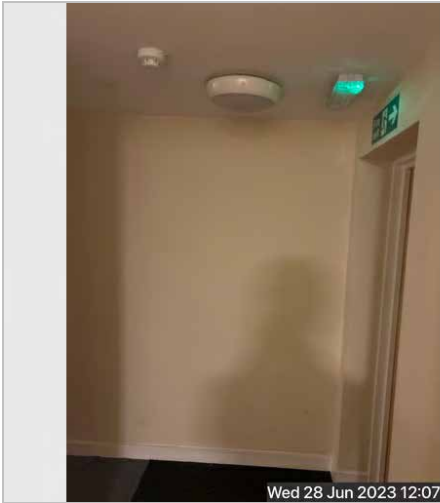
Thursday 29 June 2023 04:21 PM - Closed by



Filename: 28_06_2023_12_10_07_18G9.jpg
Thursday 29 June 2023 11:20 AM



Filename: 28_06_2023_12_10_07_39GF.jpg
Thursday 29 June 2023 11:20 AM



Filename: 28_06_2023_12_10_07_6AU1.jpg
Thursday 29 June 2023 11:20 AM

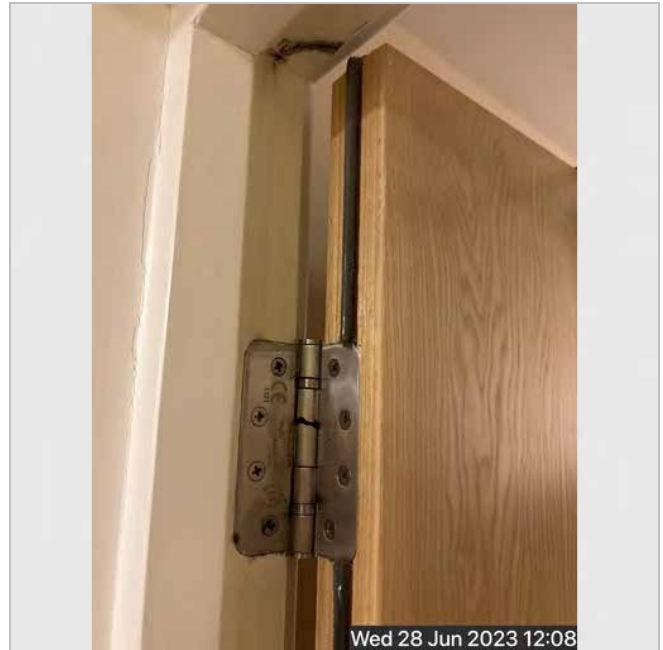


Filename: 28_06_2023_12_10_07_AVFJ.jpg
Thursday 29 June 2023 11:20 AM



Filename: 28_06_2023_12_10_07_LIYN.jpg

Thursday 29 June 2023 11:21 AM



Filename: 28_06_2023_12_10_07_M3N0.jpg

Thursday 29 June 2023 11:21 AM

Inspection Register - 15751BC Spectrum Dagenham
Item No: 23
Inspection Date: 2023-06-28 12:10:00
Report created by:
Local timezone: Europe/London

Report Timestamp: Friday 04 August 2023 03:17 PM

Item No	Inspection Date	Floor Level	Location	Inspection Category	Inspection Element	Comments	Inspector	Date Reviewed	Risk Rating
23	28/06/2023 12:10	7	Stair core	Active systems	AOV's	<u>AOV</u> To the head of the staircore, a door opening leading to the roof terrace could be considered a manually operated vent to stair. No mechanical AOV provisions installed to the building.	 	28/06/2023 12:10	

Review History

Thursday 29 June 2023 04:21 PM - Closed by



Filename: 28_06_2023_12_12_13_A66W.jpg
Thursday 29 June 2023 11:21 AM



Filename: 28_06_2023_12_12_13_D92B.jpg
Thursday 29 June 2023 11:21 AM



Filename: 28_06_2023_12_12_13_Q4HT.jpg
Thursday 29 June 2023 11:21 AM

Inspection Register - 15751BC Spectrum Dagenham

Item No: 24

Inspection Date: 2023-06-28 12:12:00

Report created by:

Report Timestamp: Friday 04 August 2023 03:17 PM

Local timezone: Europe/London

Item No	Inspection Date	Floor Level	Location	Inspection Category	Inspection Element	Comments	Inspector	Date Reviewed	Risk Rating
24	28/06/2023 12:12	7	Roof - Parapet Wall	External	Cladding	<p><u>Parapet Wall</u></p> <p>The head of the parapet wall system incorporates c.20mm shiplapped cladding to the roof side up to the underside of the coping system.</p> <p>The coping system is fabricated from metal sheet.</p> <p><u>Staircore</u></p> <p>The staircore external wall system incorporates render on blockwork wall system.</p>		28/06/2023 12:12	

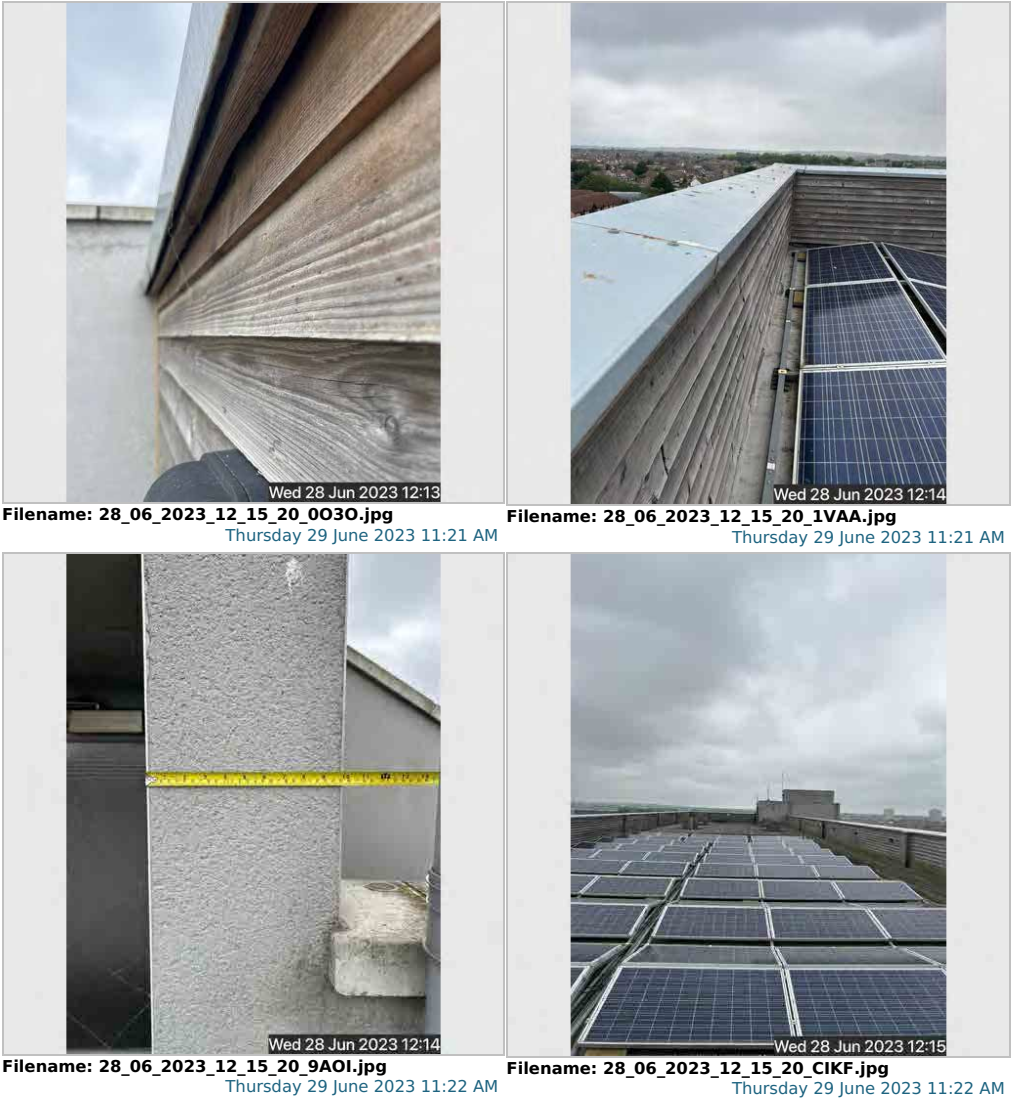
Review History

- Friday 30 June 2023 09:45 AM

- Open by

Comments: SJ/JR.
- Thursday 29 June 2023 04:21 PM

- Closed by

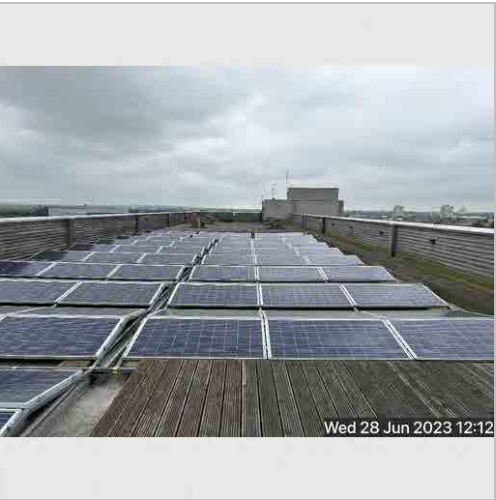




Filename: 28_06_2023_12_15_20_I3WC.jpg
Thursday 29 June 2023 11:22 AM



Filename: 28_06_2023_12_15_20_KB1I.jpg
Thursday 29 June 2023 11:22 AM



Filename: 28_06_2023_12_15_20_V04X.jpg
Thursday 29 June 2023 11:22 AM

Inspection Register - 15751BC Spectrum Dagenham

Item No: 25

Inspection Date: 2023-06-28 12:15:00

Report created by: [REDACTED]

Report Timestamp: Friday 04 August 2023 03:17 PM

Local timezone: Europe/London

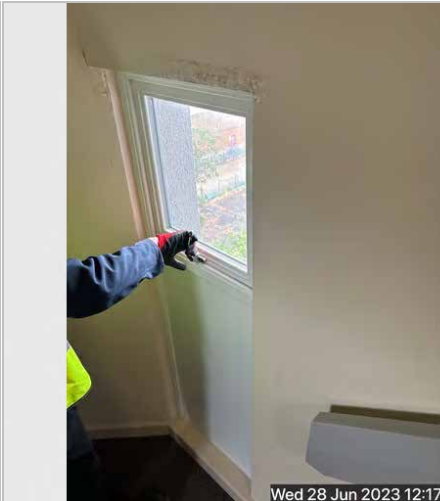
Item No	Inspection Date	Floor Level	Location	Inspection Category	Inspection Element	Comments	Inspector	Date Reviewed	Risk Rating
25	28/06/2023 12:15	5/6 half landing.	Stair core	External	Brick work	<u>Render on Blockwork</u> EXTERNAL LEAF 1. Render 2. Blockwork 3. Basecoat and multi-finish plaster finish INTERNAL LEAF Wall thickness measured at 340mm including internal plaster finish. <u>External Wall System</u> uPVC windows are installed to the stair core, the lower aspect of the windows incorporate spandrel panels. The spandrel panels fabrication will be re-visited later on in the intrusive inspection survey.	[REDACTED]	28/06/2023 12:15	

Review History

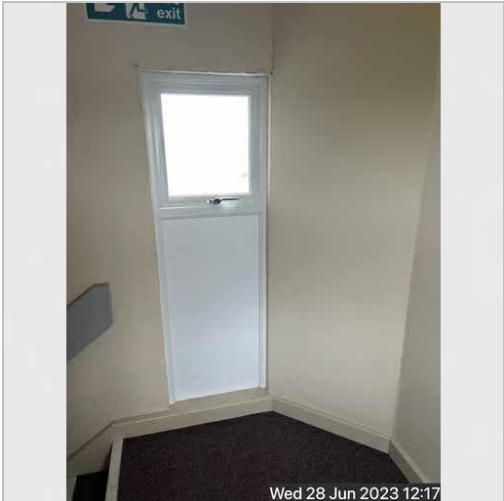
Thursday 29 June 2023 04:21 PM - Closed by [REDACTED]



Filename: 28_06_2023_12_18_28_6GCX.jpg
Thursday 29 June 2023 11:22 AM



Filename: 28_06_2023_12_18_28_8SQ0.jpg
Thursday 29 June 2023 11:22 AM



Filename: 28_06_2023_12_18_28_BXIV.jpg
Thursday 29 June 2023 11:23 AM

Inspection Register - 15751BC Spectrum Dagenham
Item No: 26
Inspection Date: 2023-06-28 12:18:00
Report created by:
Local timezone: Europe/London

Report Timestamp: Friday 04 August 2023 03:17 PM

Item No	Inspection Date	Floor Level	Location	Inspection Category	Inspection Element	Comments	Inspector	Date Reviewed	Risk Rating
26	28/06/2023 12:18	4/5 half landing.	Stair core	Means of escape	Escape routes	<u>Render on Blockwork (stair core)</u> EXTERNAL LEAF 1. Render 2. Blockwork 3. Basecoat and multi-finish plaster finish INTERNAL LEAF <u>Automatic Fire Detection and Alarm System</u> Fire detection present within the common corridor and cross-corridor areas. Detector heads measured at 6m apart within the maximum 7.5m radius for smoke detection. <u>Emergency Lighting Provisions</u> Emergency lighting installed within the lift lobby area. <u>Smoke Ventilation System</u> It was noted a smoke ventilation system is installed at either end of the protected common corridor at levels 4 and 5 (consistent across all floor plates).	<div></div> <div></div>	28/06/2023 12:18	

Review History

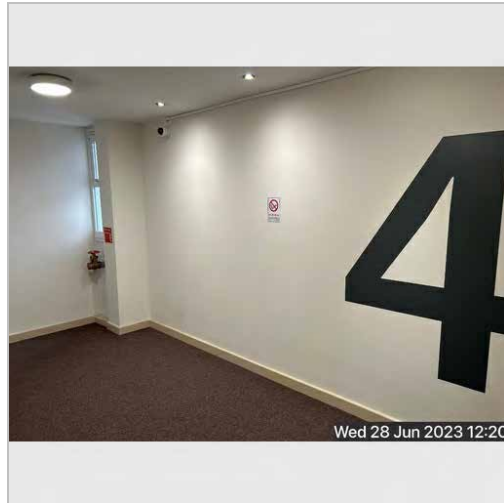
Thursday 29 June 2023 04:21 PM - Closed by



Filename: 28_06_2023_12_24_07_0L9T.jpg
Thursday 29 June 2023 11:23 AM



Filename: 28_06_2023_12_24_07_5VW9.jpg
Thursday 29 June 2023 11:23 AM



Filename: 28_06_2023_12_24_07_710L.jpg
Thursday 29 June 2023 11:23 AM



Filename: 28_06_2023_12_24_07_IVEV.jpg
Thursday 29 June 2023 11:23 AM



Filename: 28_06_2023_12_24_07_KUWF.jpg
Thursday 29 June 2023 11:23 AM



Filename: 28_06_2023_12_24_07_WYK6.jpg
Thursday 29 June 2023 11:24 AM



Filename: 28_06_2023_12_24_07_XAAC.jpg
Thursday 29 June 2023 11:24 AM

Inspection Register - 15751BC Spectrum Dagenham

Item No: 27

Inspection Date: 2023-06-28 12:24:00

Report created by:

Report Timestamp: Friday 04 August 2023 03:17 PM

Local timezone: Europe/London

Item No	Inspection Date	Floor Level	Location	Inspection Category	Inspection Element	Comments	Inspector	Date Reviewed	Risk Rating
27	28/06/2023 12:24	2	Smoke Ventilation - Common Corridor	Active systems	Lobby ventilation	<p><u>Smoke Ventilation</u></p> <p>It was observed a smoke ventilation opening was installed to the end of the corridor (adjacent to the stair core) which directly connects to external wall and metal louvers grilles.</p> <p>The AOV cross section free area measures 700mm x 2370mm.</p> <p>It was noted the AOV maglock actuator control mechanism was damaged, with the door free and in the open position, preventing the system from operating as designed and installed.</p> <p>BB7 advise repair and remedial works are completed by a competent engineer at the earliest opportunity.</p>		28/06/2023 12:24	

Review History

Friday 30 June 2023 09:46 AM
- Open by

Comments: Remedial works advised.

Thursday 29 June 2023 04:21 PM
- Closed by



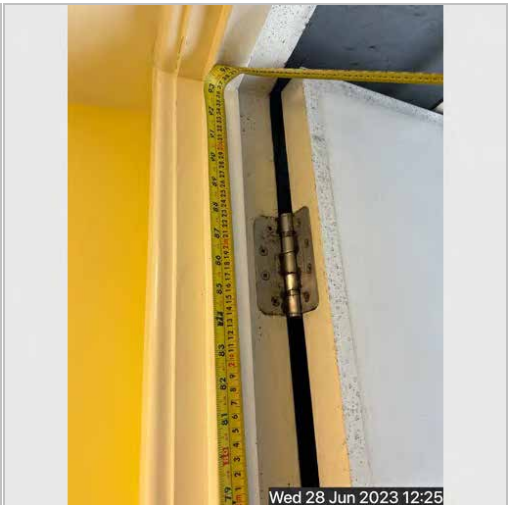
Filename: 28_06_2023_12_27_22_69UA.jpg
Thursday 29 June 2023 11:24 AM



Filename: 28_06_2023_12_27_22_AQN7.jpg
Thursday 29 June 2023 11:24 AM



Filename: 28_06_2023_12_27_22_OA75.jpg
Thursday 29 June 2023 11:24 AM



Filename: 28_06_2023_12_27_22_VEDH.jpg
Thursday 29 June 2023 11:24 AM

Inspection Register - 15751BC Spectrum Dagenham

Item No: 28

Inspection Date: 2023-06-28 12:29:00

Report created by: [REDACTED]

Report Timestamp: Friday 04 August 2023 03:17 PM

Local timezone: Europe/London

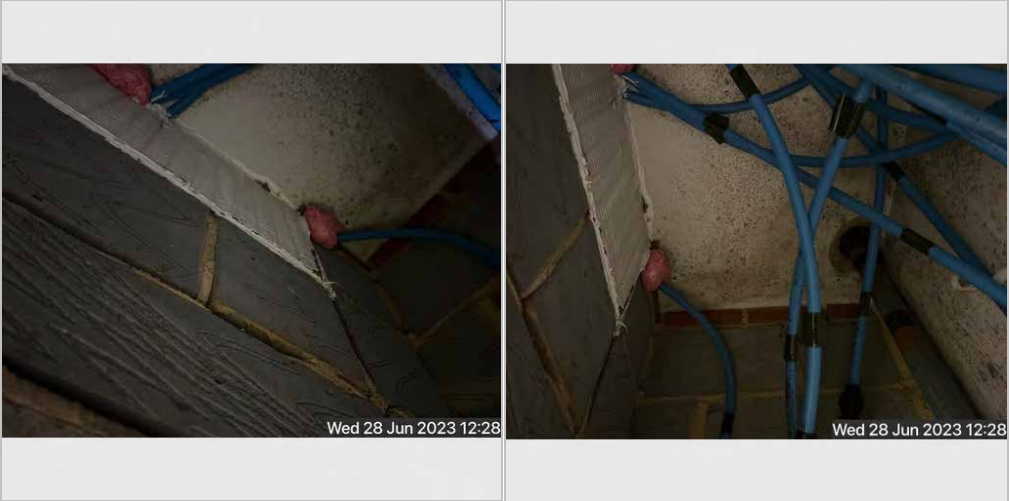
Item No	Inspection Date	Floor Level	Location	Inspection Category	Inspection Element	Comments	Inspector	Date Reviewed	Risk Rating
28	28/06/2023 12:29	2	Lift Lobby / Services Cupboard	Fire Stopping - General	Cables	<p><u>Service Cupboard</u></p> <p>To the service cupboard, it was observed PUA foam applied to additional pipework service penetrations located on the compartment walls to the service cupboard which deviates from the fire tested detail. Existing ablative fire stopping system invalidated with existing the application of PUA foam.</p> <p><u>Automatic Fire Detection and Alarm System</u></p> <p>Fire detection present within the lift lobby area and stair landing area.</p>	[REDACTED]	28/06/2023 12:27	

Review History

Friday 30 June 2023 09:46 AM
- **Open** by [REDACTED]

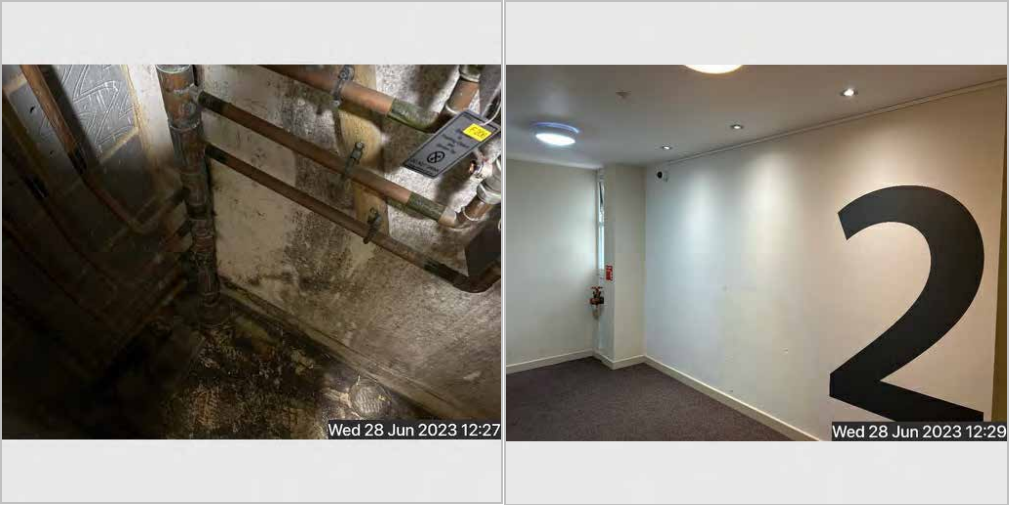
Comments: Remedial works advised.

Thursday 29 June 2023 04:21 PM - **Closed** by [REDACTED]



Filename: 28_06_2023_12_30_11_0B77.jpg
Thursday 29 June 2023 11:24 AM

Filename: 28_06_2023_12_30_11_C6V8.jpg
Thursday 29 June 2023 11:25 AM



Filename: 28_06_2023_12_30_11_FEDY.jpg
Thursday 29 June 2023 11:25 AM

Filename: 28_06_2023_12_30_11_HODT.jpg
Thursday 29 June 2023 11:25 AM



Filename: 28_06_2023_12_30_11_OVZ0.jpg
Thursday 29 June 2023 11:25 AM



Filename: 28_06_2023_12_30_11_QJQN.jpg
Thursday 29 June 2023 11:25 AM



Filename: 28_06_2023_12_30_11_WGC1.jpg
Thursday 29 June 2023 11:25 AM

Inspection Register - 15751BC Spectrum Dagenham

Item No: 29

Inspection Date: 2023-06-28 12:31:00

Report created by: [REDACTED]

Report Timestamp: Friday 04 August 2023 03:17 PM

Local timezone: Europe/London

Item No	Inspection Date	Floor Level	Location	Inspection Category	Inspection Element	Comments	Inspector	Date Reviewed	Risk Rating
29	28/06/2023 12:31	1	Lift lobby	Means of escape	Escape routes	<p><u>Service Cupboard</u></p> <p>To the service cupboard, it was observed PUA foam applied to additional pipework service penetrations located on the compartment walls to the service cupboard which deviates from the fire tested detail. Existing ablative fire stopping system invalidated with existing the application of PUA foam.</p> <p>It was noted small cables run out of shaft into trunking with no evidence of fire stopping or sealant present.</p> <p><u>Automatic Fire Detection and Alarm System</u></p> <p>Fire detection present within the lift lobby area and stair landing area.</p> <p><u>Layout - Means of Escape</u></p> <p>At ground floor, the stair core discharges to the lift lobby where there is a final exit door leading to the ultimate place of safety.</p>	[REDACTED]	28/06/2023 12:30	

Review History

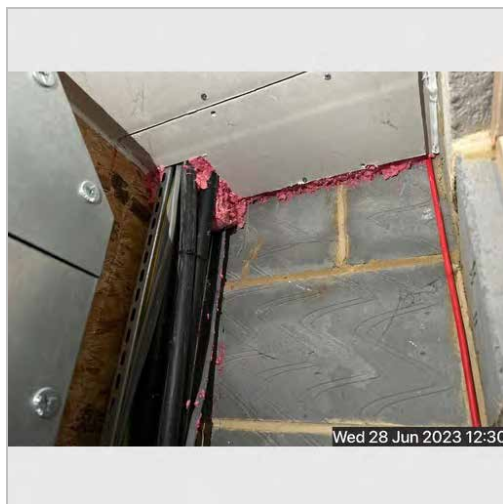
- Friday 30 June 2023 09:46 AM

- **Open** by [REDACTED]

Comments: Remedial works advised.
- Thursday 29 June 2023 04:21 PM

- **Closed** by [REDACTED]





Filename: 28_06_2023_12_33_56_WV2D.jpg

Thursday 29 June 2023 11:26 AM



Filename: 28_06_2023_12_33_56_G73.jpg

Thursday 29 June 2023 11:26 AM

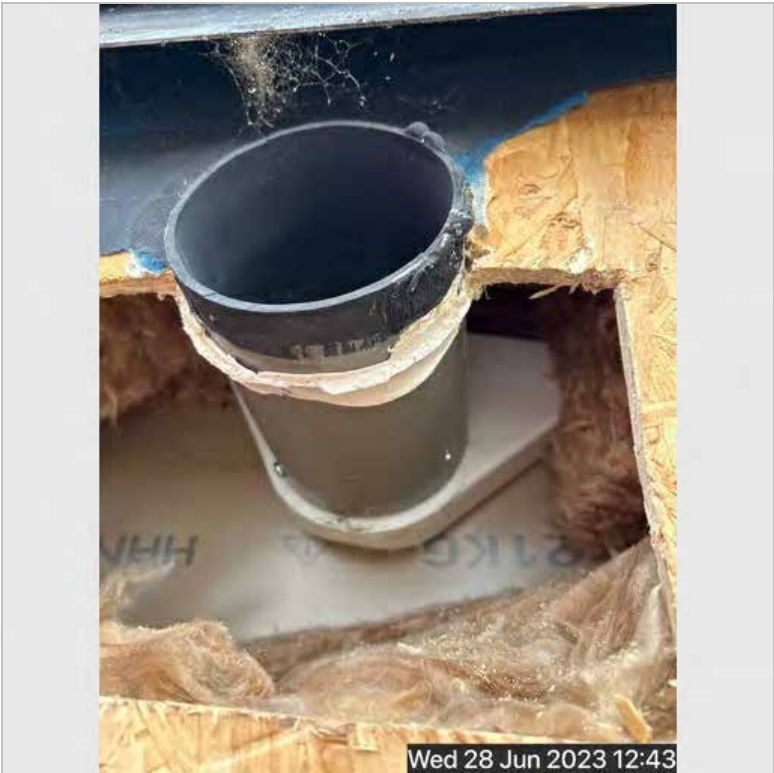
Inspection Register - 15751BC Spectrum Dagenham
Item No: 30
Inspection Date: 2023-06-28 12:39:00
Report created by:
Local timezone: Europe/London

Report Timestamp: Friday 04 August 2023 03:17 PM

Item No	Inspection Date	Floor Level	Location	Inspection Category	Inspection Element	Comments	Inspector	Date Reviewed	Risk Rating
30	28/06/2023 12:39	6	Apartment 602 - Rear Elevation	External		<u>Inspection 1 Opening (ductwork)</u> An intrusive opening around the uPVC ductwork penetration entering into the external wall cavity. It was observed loose mineral wool was installed to between the timber studwork to the inner plasterboard leaf.	<div></div> <div></div>	28/06/2023 12:33	

Review History

Thursday 29 June 2023 04:21 PM - Open by
Comments: TBD



Filename: 28_06_2023_12_43_47_L5IW.jpg

Thursday 29 June 2023 11:26 AM

Inspection Register - 15751BC Spectrum Dagenham

Item No: 31

Inspection Date: 2023-06-28 12:44:00

Report created by:

Report Timestamp: Friday 04 August 2023 03:17 PM

Local timezone: Europe/London

Item No	Inspection Date	Floor Level	Location	Inspection Category	Inspection Element	Comments	Inspector	Date Reviewed	Risk Rating
31	28/06/2023 12:44	7	Firefighting Lift	Active systems		<u>Firefighting Lift Provisions</u> Firefighting lift was installed to the building, this was confirmed by the signage located within the lift car.		28/06/2023 12:43	

Review History

Thursday 29 June 2023 04:21 PM - Closed by

Thursday 29 June 2023 04:21 PM - Open by

Comments: TBD



Filename: 28_06_2023_12_46_35_WN_Z.jpg
Thursday 29 June 2023 11:26 AM



Filename: 28_06_2023_12_46_35_2Y4.jpg
Thursday 29 June 2023 11:26 AM

Inspection Register - 15751BC Spectrum Dagenham

Item No: 32

Inspection Date: 2023-06-28 12:46:00

Report created by:

Report Timestamp: Friday 04 August 2023 03:17 PM

Local timezone: Europe/London

Item No	Inspection Date	Floor Level	Location	Inspection Category	Inspection Element	Comments	Inspector	Date Reviewed	Risk Rating
32	28/06/2023 12:46	7	Roof	Fire Service	Dry main outlet	<u>Dry Riser</u> The dry riser outlet extends to the roof level. <u>AFDA</u> AFDA sounders installed to the head of on both stair shafts.		28/06/2023 12:46	

Review History

Thursday 29 June 2023 04:21 PM - Closed by



Inspection Register - 15751BC Spectrum Dagenham

Item No: 33

Inspection Date: 2023-06-28 12:48:00

Report created by: [REDACTED]

Report Timestamp: Friday 04 August 2023 03:17 PM

Local timezone: Europe/London

Item No	Inspection Date	Floor Level	Location	Inspection Category	Inspection Element	Comments	Inspector	Date Reviewed	Risk Rating
33	28/06/2023 12:48	7	Roof	External	Cladding	<p><u>Inspection Opening 4</u></p> <p>Timber cladding removed to the inner aspect of parapet wall system:</p> <p>EXTERNAL LEAF</p> <p>1. Timber shiplap cladding: 18mm</p> <p>2. Oriented Strand Board: c.17mm</p> <p>3. Cavity: width measures: unknown</p> <p>The head of the parapet wall is capped with non-combustible metal coping system.</p>	[REDACTED]	28/06/2023 12:48	

Review History

Thursday 29 June 2023 04:21 PM - **Open** by [REDACTED]

Comments: TBD

Thursday 29 June 2023 04:21 PM - **Closed** by [REDACTED]



Filename: 28_06_2023_12_53_36_50AH.jpg
Thursday 29 June 2023 11:27 AM



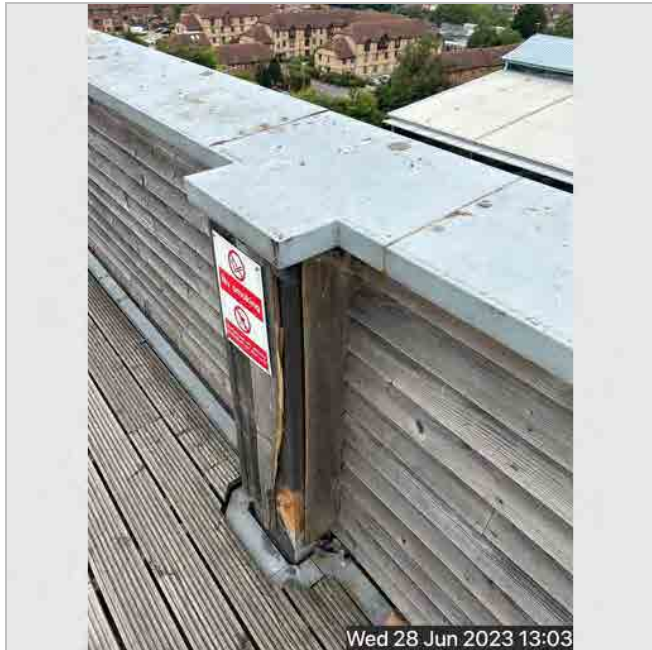
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Thursday 29 June 2023 11:27 AM



Filename: 28_06_2023_13_02_16_B14A.jpg
Thursday 29 June 2023 11:27 AM



Filename: 28_06_2023_13_02_33_SJT8.jpg
Thursday 29 June 2023 11:27 AM



Filename: 28_06_2023_13_03_18_XIJ5.jpg

Thursday 29 June 2023 11:28 AM

Inspection Register - 15751BC Spectrum Dagenham

Item No: 34

Inspection Date: 2023-06-28 13:11:00

Report created by: [REDACTED]

Report Timestamp: Friday 04 August 2023 03:17 PM

Local timezone: Europe/London

Item No	Inspection Date	Floor Level	Location	Inspection Category	Inspection Element	Comments	Inspector	Date Reviewed	Risk Rating
34	28/06/2023 13:11	7	Roof	External	Cladding	<p><u>Inspection Opening 5</u></p> <p>Timber cladding removed to the head of the parapet wall system to confirm wall build-up.</p> <p>EXTERNAL LEAF</p> <p>1. Timber shiplap cladding: c.20mm</p> <p>2. Oriented Strand Board: c.18mm</p> <p>3. Cavity (empty): c.140mm</p> <p>To the head of the parapet wall incorporates a head timber stubwork which runs horizontally along the top of the parapet which closes the cavity.</p>	[REDACTED]	28/06/2023 13:11	

Review History

Thursday 29 June 2023 04:21 PM - **Open** by [REDACTED]

Comments: TBD



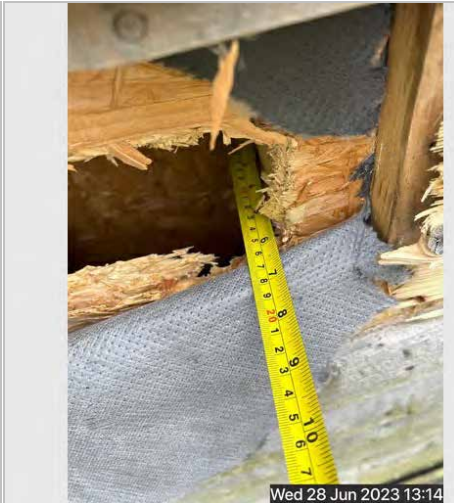
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Thursday 29 June 2023 11:28 AM



Filename: 28_06_2023_13_16_58_G4PI.jpg
Thursday 29 June 2023 11:28 AM



Filename: 28_06_2023_13_16_58_MP73.jpg
Thursday 29 June 2023 11:28 AM



Filename: 28_06_2023_13_16_58_V98X.jpg
Thursday 29 June 2023 11:28 AM

Inspection Register - 15751BC Spectrum Dagenham
Item No: 35
Inspection Date: 2023-06-28 13:17:00
Report created by:
Local timezone: Europe/London

Report Timestamp: Friday 04 August 2023 03:17 PM

Item No	Inspection Date	Floor Level	Location	Inspection Category	Inspection Element	Comments	Inspector	Date Reviewed	Risk Rating
35	28/06/2023 13:17	7	Roof	External	Cladding	<u>Inspection Opening 6</u> <u>Render on Blockwork</u> EXTERNAL LEAF 1. Render: c.10mm 2. Mesh: c.<1mm 3. Backing Coat: c.10mm 4. Blockwork: c.140mm 5. Backing Coat: c.10mm 6. Mesh: c.<1mm 7. Render: c.20mm EXTERNAL LEAF Wall thickness measured at 340mm including internal plaster finish.	<div></div> <div></div>	28/06/2023 13:16	

Review History

Thursday 29 June 2023 04:21 PM - Closed by
Comments: TBD



Filename: 28_06_2023_13_29_55_0MZ2.jpg
Thursday 29 June 2023 11:29 AM



Filename: 28_06_2023_13_29_55_42DY.jpg
Thursday 29 June 2023 11:29 AM



Filename: 28_06_2023_13_29_55_BVZ9.jpg



Filename: 28_06_2023_13_29_55_NXK.jpg

Thursday 29 June 2023 04:18 PM

Thursday 29 June 2023 04:18 PM

Inspection Register - 15751BC Spectrum Dagenham

Item No: 36

Inspection Date: 2023-06-28 13:39:00

Report created by:

Report Timestamp: Friday 04 August 2023 03:17 PM

Local timezone: Europe/London

Item No	Inspection Date	Floor Level	Location	Inspection Category	Inspection Element	Comments	Inspector	Date Reviewed	Risk Rating
36	28/06/2023 13:39	1	Street elevation	External	Horizontal cavity barrier	<p><u>Inspection Opening 7</u></p> <p><u>Pre-Cast Large Panel System</u></p> <p>An intrusive opening was completed at expansion joint by removal of the seal and foam backing filler to expose the wall build-up at the horizontal floor line.</p> <p>EXTERNAL LEAF</p> <p>1. Pre-cast Large Panel System: c.200mm</p> <p>2. Cavity: None (pre-cast wall panel flush with floor slab).</p> <p>3. Internal wall system: confirmed in later invasive inspection.</p> <p>INTERNAL LEAF</p> <p><u>Cavity Barrier Provisions</u></p> <p>The opening confirmed there is no cavity between the pre-cast large panel system and floor slab line at this inspection opening.</p>		28/06/2023 13:29	

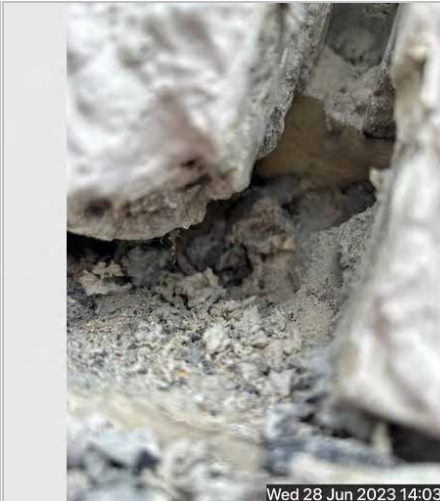
Review History

Thursday 29 June 2023 04:21 PM - Open by

Comments: tBD



Filename: 28_06_2023_14_03_51_4_GL.jpg
Thursday 29 June 2023 04:18 PM



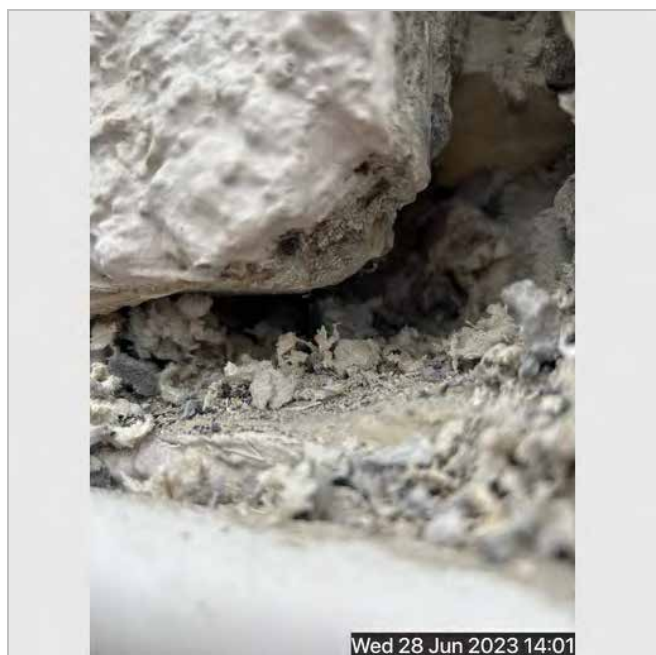
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Thursday 29 June 2023 04:18 PM



Filename: 28_06_2023_14_03_51_OL3P.jpg
Thursday 29 June 2023 04:19 PM



Filename: 28_06_2023_14_03_51_RGT9.jpg
Thursday 29 June 2023 04:19 PM



Wed 28 Jun 2023 14:01

Filename: 28_06_2023_14_03_51_UT8D.jpg

Thursday 29 June 2023 04:19 PM



Wed 28 Jun 2023 14:02

Filename: 28_06_2023_14_03_51_V4ZS.jpg

Thursday 29 June 2023 04:19 PM

Inspection Register - 15751BC Spectrum Dagenham

Item No: 37

Inspection Date: 2023-06-28 14:09:00

Report created by: [REDACTED]

Report Timestamp: Friday 04 August 2023 03:17 PM

Local timezone: Europe/London

Item No	Inspection Date	Floor Level	Location	Inspection Category	Inspection Element	Comments	Inspector	Date Reviewed	Risk Rating
37	28/06/2023 14:09	1-2	Side elevation	External	Cladding	<p><u>Inspection Opening 8</u></p> <p>An intrusive opening was completed to the spandrel panel to reveal the build-up.</p> <p>EXTERNAL LEAF</p> <ol style="list-style-type: none"> 1. Quickslide spandrel panel: c.28mm Backing consists of 5mm mdf and EPS or XPS insulation 2. Mineral Wool Insulation (loose fill): c.160mm 3. Unidentified PIR insulation between timber studs: c.60mm 4. Foil-faced gypsum based board: c.12.5mm <p>INTERNAL LEAF</p>	[REDACTED]	28/06/2023 14:03	

Review History

Friday 30 June 2023 09:50 AM
- **Open** by [REDACTED]

Comments: No vertical cavity barrier provisions installed.

Thursday 29 June 2023 04:21 PM
- **Closed** by [REDACTED]

Comments: TBD



Wed 28 Jun 2023 14:08

Filename: 28_06_2023_14_18_06_15XM.jpg

Thursday 29 June 2023 04:19 PM



Wed 28 Jun 2023 14:08

Filename: 28_06_2023_14_18_06_VIQW.jpg

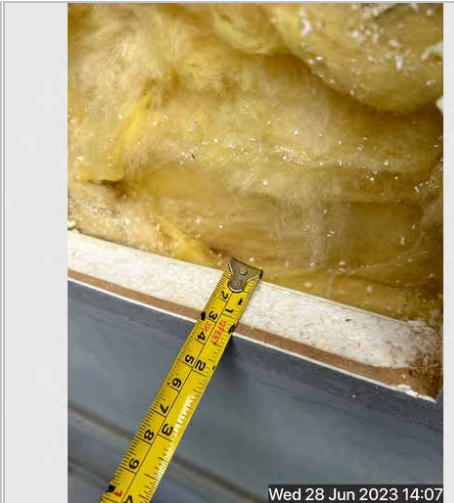
Thursday 29 June 2023 04:19 PM



Wed 28 Jun 2023 14:06

Filename: 28_06_2023_14_18_07_15JB.jpg

Thursday 29 June 2023 04:19 PM



Wed 28 Jun 2023 14:07

Filename: 28_06_2023_14_18_07_FA3Q.jpg

Thursday 29 June 2023 04:20 PM



Filename: 28_06_2023_14_18_07_MXY1.jpg
Thursday 29 June 2023 04:20 PM

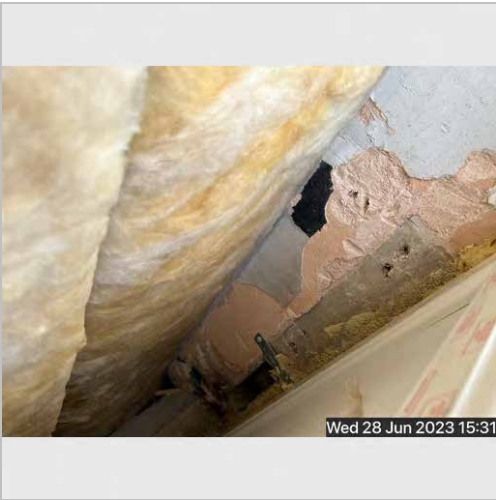


Filename: 28_06_2023_14_18_07_RIE4.jpg
Thursday 29 June 2023 04:20 PM

Local timezone: Europe/London



Filename: 28_06_2023_15_35_25_HJS8.jpg
Thursday 29 June 2023 04:21 PM



Filename: 28_06_2023_15_35_25_MFDD.jpg
Thursday 29 June 2023 04:21 PM



Filename: 28_06_2023_15_35_25_UAKO.jpg
Thursday 29 June 2023 04:21 PM



Filename: 28_06_2023_15_35_25_XOBE.jpg
Thursday 29 June 2023 04:21 PM

Inspection Register - 15751BC Spectrum Dagenham

Item No: 39

Inspection Date: 2023-06-28 14:20:00

Report created by:

Report Timestamp: Friday 04 August 2023 03:17 PM

Local timezone: Europe/London

Item No	Inspection Date	Floor Level	Location	Inspection Category	Inspection Element	Comments	Inspector	Date Reviewed	Risk Rating
39	28/06/2023 14:20	5	Spectrum Building, Dagenham	External	Brick work	<u>Inspection Opening 9</u> EXTERNAL LEAF 1. Render: c.10mm 2. Mesh: c.<1mm 3. Backing Coat: c.10mm 4. Blockwork: c.140mm 5. Backing Coat: c.10mm 6. Mesh: c.<1mm 7. Render: c.20mm EXTERNAL LEAF <u>Cavity Barrier Provisions.</u> No applicable to this wall system type.		04/08/2023 13:38	



Filename: 001_65140.jpg

Friday 04 August 2023 01:44 PM



Filename: 002_30454.jpg

Friday 04 August 2023 01:44 PM



Filename: 003_7408.jpg

Friday 04 August 2023 01:44 PM



Filename: 004_47410.jpg

Friday 04 August 2023 01:44 PM



Filename: 005_58062.jpg

Friday 04 August 2023 01:44 PM



Filename: 006_925.jpg

Friday 04 August 2023 01:45 PM

Inspection Register - 15751BC Spectrum Dagenham
Item No: 40
Inspection Date: 2023-06-28 14:30:00
Report created by:
Local timezone: Europe/London

Report Timestamp: Friday 04 August 2023 03:17 PM

Item No	Inspection Date	Floor Level	Location	Inspection Category	Inspection Element	Comments	Inspector	Date Reviewed	Risk Rating
40	28/06/2023 14:30	5	Spectrum, Dagenham	External	Brick work	<u>Inspection Opening 10</u> Render on blockwork around external ventilation louvre openings. EXTERNAL LEAF 1. Render: c.10mm 2. Mesh: c.<1mm 3. Backing Coat: c.10mm 4. Blockwork: c.140mm 5. Backing Coat: c.10mm 6. Mesh: c.<1mm 7. Render: c.20mm EXTERNAL LEAF <u>Cavity Barrier Provisions</u> Not applicable to this wall system type.	<div></div> <div></div>	04/08/2023 13:39	



Filename: 007_43655.jpg

Friday 04 August 2023 01:45 PM



Filename: 008_82816.jpg

Friday 04 August 2023 01:46 PM



Filename: 009_10291.jpg

Friday 04 August 2023 01:46 PM



Filename: 010_28291.jpg

Friday 04 August 2023 01:46 PM



Filename: 011_34698.jpg
Friday 04 August 2023 01:46 PM



Filename: 012_36982.jpg
Friday 04 August 2023 01:46 PM



Filename: 013_93275.jpg
Friday 04 August 2023 01:46 PM

Inspection Register - 15751BC Spectrum Dagenham

Item No: 41

Inspection Date: 2023-06-28 14:40:00

Report created by: [REDACTED]

Report Timestamp: Friday 04 August 2023 03:17 PM

Local timezone: Europe/London

Item No	Inspection Date	Floor Level	Location	Inspection Category	Inspection Element	Comments	Inspector	Date Reviewed	Risk Rating
41	28/06/2023 14:40	4	Spectrum, Dagenham	External	Spandrel panel	<p><u>Inspection Opening 11</u></p> <p>An intrusive opening was completed to the spandrel panel to reveal the build-up at level 4</p> <p>EXTERNAL LEAF</p> <p>1. Quickslide spandrel panel: c.28mm Backing consists of 5mm mdf and EPS or XPS insulation</p> <p>2. Mineral Wool Insulation (loose fill): c.160mm</p> <p>3. Unidentified PIR insulation between timber studs: c.60mm</p> <p>4. Foil-faced gypsum based board: c.12.5mm</p> <p>INTERNAL LEAF</p> <p><u>Cavity Barrier Provisions</u></p> <p>No cavity barrier provisions are installed around the uPVC frame due to pre-cast concrete panel forming the main substrate and wall system.</p> <p>BB7 were unable to determine whether the internal compartment wall line lands on the spandrel panel wall system. During the inspection, no vertical fire stopping provisions were present. BB7 advise a full internal compartment wall survey is completed.</p>	[REDACTED]	04/08/2023 13:39	



Filename: 017_83129.jpg

Friday 04 August 2023 01:48 PM



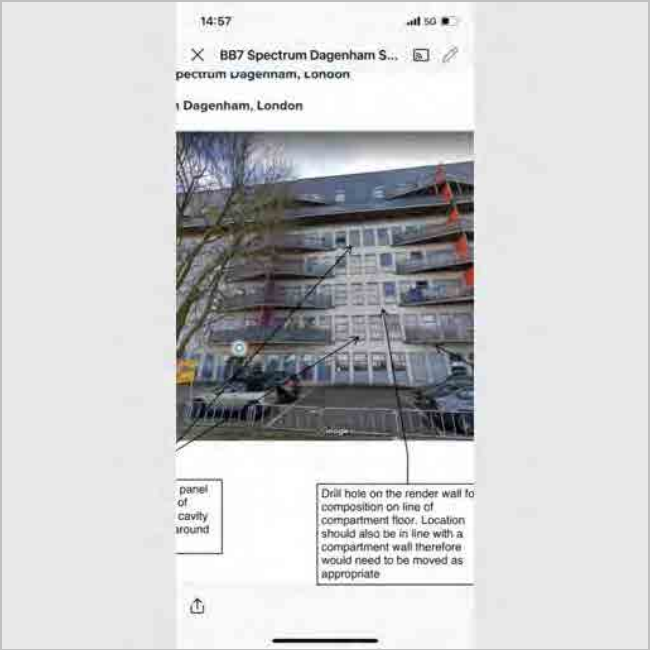
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Friday 04 August 2023 01:48 PM



Filename: 020_57247.jpg

Friday 04 August 2023 01:48 PM



Filename: 019.png

Friday 04 August 2023 01:48 PM



Filename: 021_65270.jpg
Friday 04 August 2023 01:49 PM



Filename: 022_77963.jpg
Friday 04 August 2023 01:49 PM



Filename: 023_77774.jpg
Friday 04 August 2023 01:49 PM



Filename: 024_47258.jpg
Friday 04 August 2023 01:49 PM



Filename: 025_24424.jpg
Friday 04 August 2023 01:49 PM



Filename: 027_9308.jpg
Friday 04 August 2023 01:49 PM



Filename: 027_84971.jpg
Friday 04 August 2023 01:49 PM



Filename: 029_97389.jpg
Friday 04 August 2023 01:49 PM



Filename: 030_27433.jpg
Friday 04 August 2023 01:50 PM

Inspection Register - 15751BC Spectrum Dagenham

Item No: 42

Inspection Date: 2023-06-28 14:50:00

Report created by:

Report Timestamp: Friday 04 August 2023 03:17 PM

Local timezone: Europe/London

Item No	Inspection Date	Floor Level	Location	Inspection Category	Inspection Element	Comments	Inspector	Date Reviewed	Risk Rating
42	28/06/2023 14:50	3	Spectrum, Dagenham	Structure	RC	<p><u>Inspection Opening 12</u></p> <p><u>Pre-Cast Large Panel System</u></p> <p>An intrusive opening was completed at expansion joint by removal of the seal and foam backing filler to expose the wall build-up at the horizontal floor line.</p> <p>EXTERNAL LEAF</p> <p>1. Pre-cast Large Panel System: c.200mm</p> <p>2. Cavity: None (pre-cast wall panel flush with floor slab)</p> <p>3. Internal wall system: (refer to the spandrel panel inspection locations)</p> <p>INTERNAL LEAF</p> <p><u>Cavity Barrier Provisions</u></p> <p>The opening confirmed there is no cavity between the pre-cast large panel system and floor slab line at this inspection opening.</p>		04/08/2023 14:36	



Filename: 031_44446.jpg

Friday 04 August 2023 02:38 PM



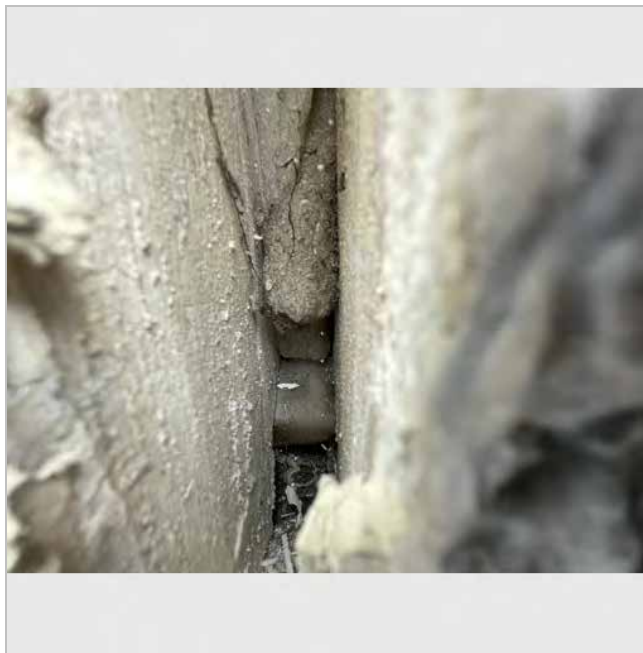
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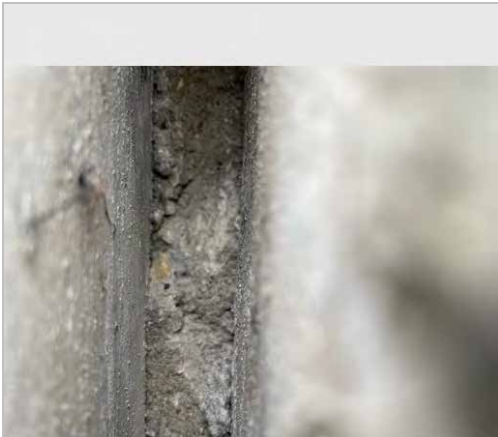
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Filename: 034.jpg

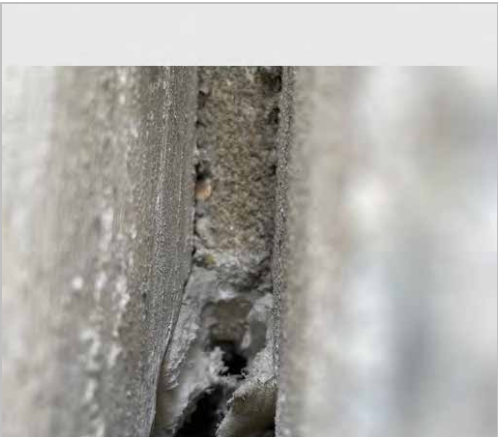
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Filename: 039_69199.jpg
Friday 04 August 2023 02:39 PM



Filename: 041_70851.jpg
Friday 04 August 2023 02:39 PM



Filename: 044_92776.jpg
Friday 04 August 2023 02:52 PM



Filename: 045_64951.jpg
Friday 04 August 2023 02:52 PM



Filename: 046_66103.jpg
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Filename: 047_34495.jpg
Friday 04 August 2023 02:53 PM



Filename: 048_59447.jpg
Friday 04 August 2023 02:53 PM



Filename: 049_75319.jpg

Friday 04 August 2023 02:53 PM

Inspection Register - 15751BC Spectrum Dagenham

Item No: 43

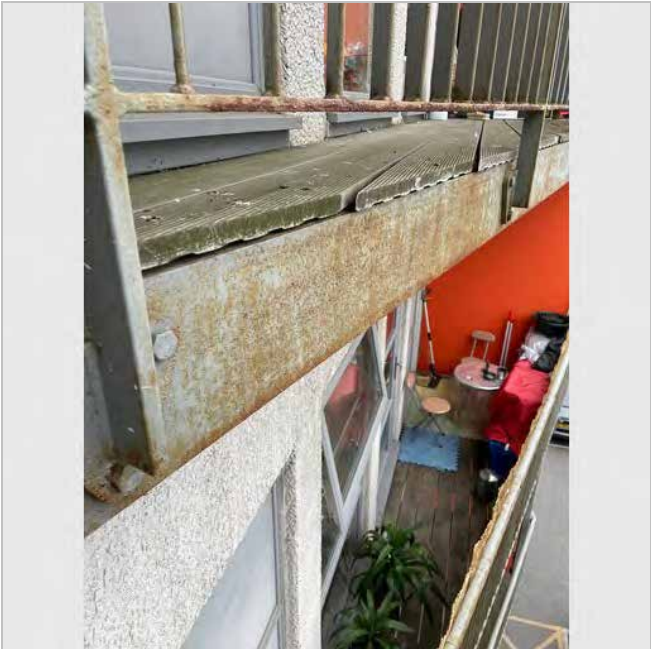
Inspection Date: 2023-06-28 15:10:00

Report created by:

Report Timestamp: Friday 04 August 2023 03:17 PM

Local timezone: Europe/London

Item No	Inspection Date	Floor Level	Location	Inspection Category	Inspection Element	Comments	Inspector	Date Reviewed	Risk Rating
43	28/06/2023 15:10	3	Spectrum, Dagenham	External	Balconies	<u>Inspection Opening 13</u> The balconies are classed as a 'attachment' to the building from level 1 to level 6. Structure: c.20mm hardwood timber secondary structure and decking in between steel balcony structure. Orientation: balconies vertically aligned and horizontally aligned above the fourth floor.		04/08/2023 14:36	



Filename: 042_9799.jpg

Friday 04 August 2023 02:45 PM



Filename: 043_70803.jpg

Friday 04 August 2023 02:46 PM



Filename: 032_71744.jpg

Friday 04 August 2023 02:46 PM

Inspection Register - 15751BC Spectrum Dagenham
Item No: 44
Inspection Date: 2023-06-28 15:15:00
Report created by:
Local timezone: Europe/London

Report Timestamp: Friday 04 August 2023 03:17 PM

Item No	Inspection Date	Floor Level	Location	Inspection Category	Inspection Element	Comments	Inspector	Date Reviewed	Risk Rating
44	28/06/2023 15:15	2	Spectrum, Dagenham	External	Spandrel panel	<p><u>Inspection Opening 14</u></p> <p>An intrusive opening was completed to the spandrel panel to reveal the build-up at level 2.</p> <p>EXTERNAL LEAF</p> <p>1. Quickslide spandrel panel: c.28mm Backing consists of 5mm mdf and EPS or XPS insulation</p> <p>2. Mineral Wool Insulation (loose fill): c.160mm</p> <p>3. Unidentified PIR insulation between timber studs: c.60mm</p> <p>4. Foil-faced gypsum based board: c.12.5mm</p> <p>INTERNAL LEAF</p> <p><u>Cavity Barrier Provisions</u></p> <p>No cavity barrier provisions are installed around the uPVC frame due to pre-cast concrete panel forming the main substrate and wall system.</p> <p>BB7 were unable to determine whether the internal compartment wall line lands on the spandrel panel wall system. During the inspection, no vertical fire stopping provisions were present. BB7 advise a full internal compartment wall survey is completed.</p>	<div></div> <div></div>	04/08/2023 14:37	



Filename: 050_76463.jpg

Friday 04 August 2023 02:47 PM



Filename: 051_60710.jpg

Friday 04 August 2023 02:47 PM



Filename: 052_18851.jpg

Friday 04 August 2023 02:48 PM

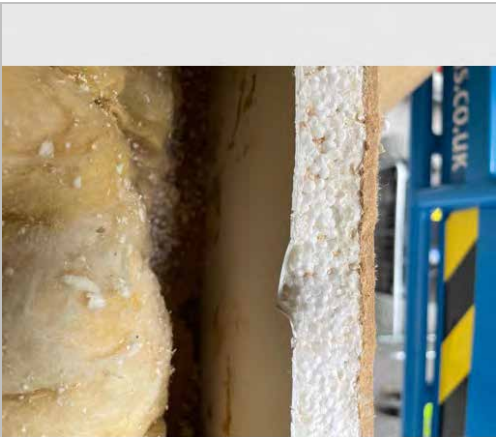


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Friday 04 August 2023 02:48 PM



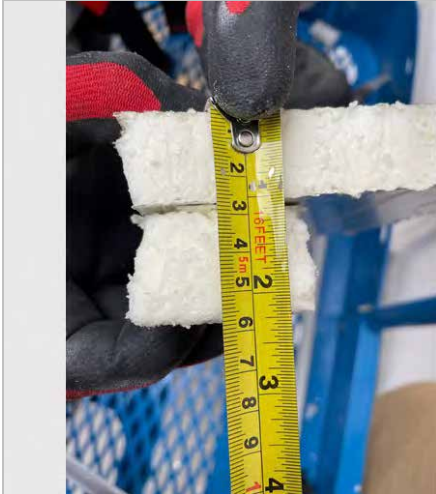
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Filename: 060_31582.jpg
Friday 04 August 2023 02:49 PM



Filename: 061_63892.jpg
Friday 04 August 2023 02:49 PM

Inspection Register - 15751BC Spectrum Dagenham

Item No: 45

Inspection Date: 2023-06-28 15:35:00

Report created by:

Report Timestamp: Friday 04 August 2023 03:17 PM

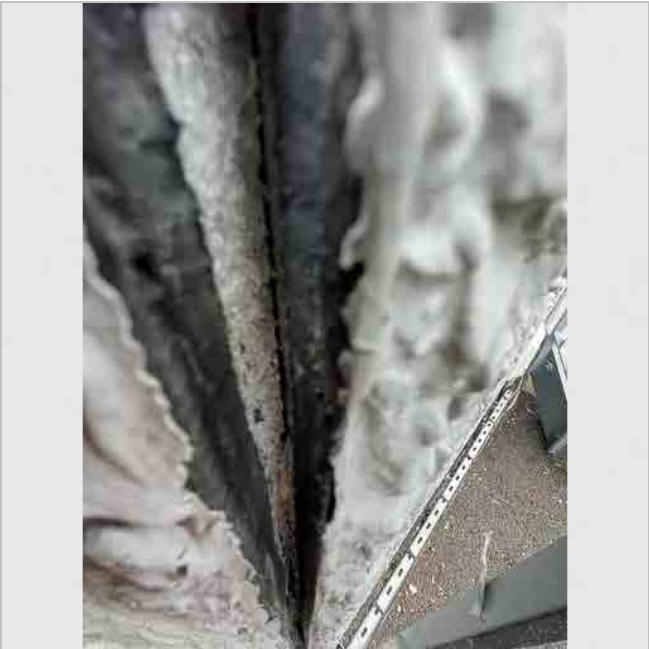
Local timezone: Europe/London

Item No	Inspection Date	Floor Level	Location	Inspection Category	Inspection Element	Comments	Inspector	Date Reviewed	Risk Rating
45	28/06/2023 15:35	0	Spectrum, Dagenham	Structure	RC	<u>Inspection Opening 14</u> The survey confirm a pre-cast large panel system forms to the staircore superstructure external wall system. An invasive opening was completed by removal of the expansion joint which confirmed pre-cast panel system, it was identified insulation present at the junction with adjacent panel for thermal bridging purposes only. The insulation is encased by the pre-cast panel junction with adjancet panel and would not contribute towards an external facade fire or vertical fire spread.	<div></div>	04/08/2023 14:51	



Filename: 062_8588.jpg

Friday 04 August 2023 02:56 PM



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Filename: 065_75309.jpg

Friday 04 August 2023 02:56 PM

Inspection Register - 15751BC Spectrum Dagenham

Item No: 46

Inspection Date: 2023-06-28 15:44:00

Report created by: [REDACTED]

Report Timestamp: Friday 04 August 2023 03:17 PM

Local timezone: Europe/London

Item No	Inspection Date	Floor Level	Location	Inspection Category	Inspection Element	Comments	Inspector	Date Reviewed	Risk Rating
46	28/06/2023 15:44	0	Spectrum, Dagenham	External	Spandrel panel	<p><u>Inspection Opening 15</u></p> <p>Spandrel panels are installed to the vertical stick curtain walling system which provides the opening for the dry-riser inlet cabinet to the lift lobby area across levels 0-6.</p> <p>Due to access restrictions due to the dry-riser pipework, BB7 were unable to removal the spandrel panels. It is assumed the spandrel panels are the same as the other panels installed across the buildings with with a combustible insulation core present.</p> <p><u>Cavity Barrier Provisions</u></p> <p>BB7 were unable to inspect the fire stopping provisions between the spandrel panels and floor slab line due to the restricture access. Between the floor slab and rear of the spandrel panels should have suitable barriers in place to prevent the spread of frame / smoke between compartment floors.</p>	[REDACTED]	04/08/2023 14:52	



Filename: 074_99862.jpg

Friday 04 August 2023 03:09 PM



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Friday 04 August 2023 03:09 PM



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Friday 04 August 2023 03:10 PM



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Friday 04 August 2023 03:10 PM

Inspection Register - 15751BC Spectrum Dagenham

Item No: 47

Inspection Date: 2023-06-28 15:50:00

Report created by:

Report Timestamp: Friday 04 August 2023 03:17 PM

Local timezone: Europe/London

Item No	Inspection Date	Floor Level	Location	Inspection Category	Inspection Element	Comments	Inspector	Date Reviewed	Risk Rating
47	28/06/2023 15:50	0	Spectrum, Dagenham	External	Brick work	<u>Inspection Opening 16</u> It was recorded a doorway has been in-filled with blockwork and render wall system (same as the vertical extension to the staircore). <u>Cavity Barrier Provisions</u> No cavity barrier provisions are required for this wall system.	<div></div>	04/08/2023 15:04	



Filename: 075_72793.jpg

Friday 04 August 2023 03:02 PM



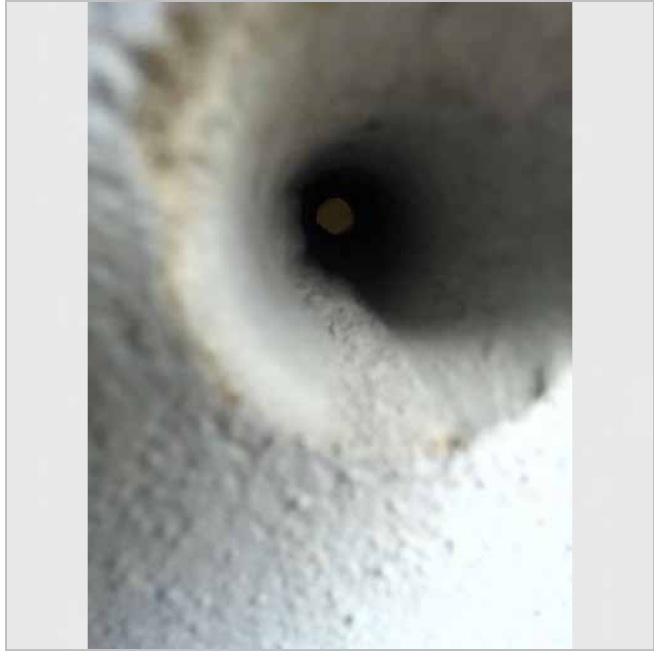
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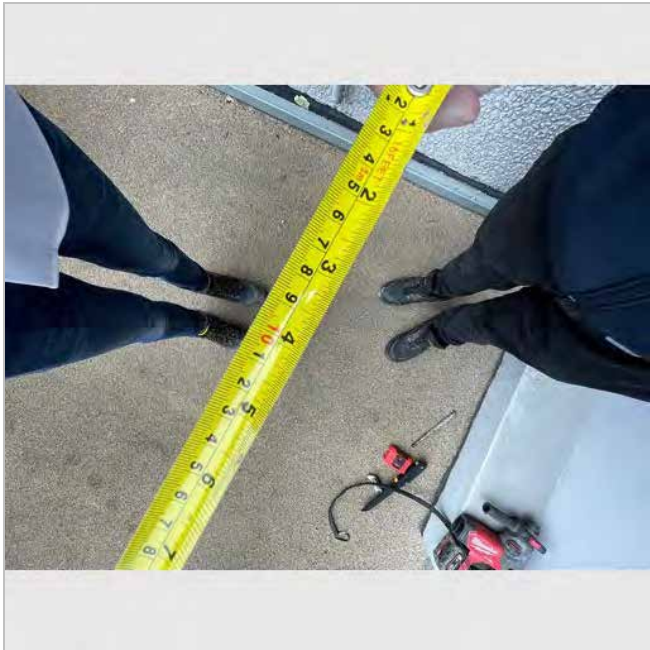
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Friday 04 August 2023 03:03 PM

SECTION 2

CONTRACT SUM ANALYSIS



Project Title:	Spectrum Dagenham	C-No:	C712
Scope of Works:	Recladding	Revision:	C

Contract Sum Analyses

Nett			
Façade Works		£	2,467,426.42
Façade Prelims		£	299,871.02
Scaffold & Hoist		£	961,186.00
Logistics		£	532,037.48
Fire Engineer		£	47,700.00
Design Fees		£	73,500.00
SAP Calcs		£	2,875.00
Building Control		£	5,750.00
FAA PCSA Fee		£	45,000.00
VO1 - BB7 to proceed with WP1 & WP2		£	11,700.00
VO2- Scaffolding Design		£	12,150.00
VO3 - Planning Application Fee		£	968.20
VO4 - Intrusive Survey		£	24,933.00
Sub Total		£	4,485,097.12
OH&P 6.5%		£	291,531.31
Design Risk 2.5%		£	112,127.43
Total		£	4,888,755.86

SECTION 3

BUILDING CONTROL PLANS APPROVAL (to follow – awaiting response from building control)

FIRE ENGINEERS REPORT (to follow – awaiting response from LFB)

APPENDIX A

**Planning Consent
(LBBSD Reference 23/00663/FULL)**

LBBD Reference: 23/00663/FULL

[REDACTED]

**TOWN AND COUNTRY PLANNING ACT 1990 (AS AMENDED)
TOWN AND COUNTRY PLANNING (DEVELOPMENT MANAGEMENT PROCEDURE) (ENGLAND) ORDER 2015 (AS AMENDED)**

Dear Sir / Madam,

Application Number: 23/00663/FULL
Address: Spectrum Building, 22 Freshwater Road, Dagenham, Barking And Dagenham, RM8 1EH
Development Description: Remedial work to external cladding to the fifth and sixth floors comprising of the removal of existing non-compliant cladding and replacing with compliant cladding, and the removal of all window solid spandrel panels and balcony privacy screens and replacing with compliant solid panels

Thank you for your recent application at the above address on which a decision has now been made. The decision on your application is attached. Please carefully read all of the information contained in these documents.

Please quote your application reference number in any correspondence with the Council.

Yours sincerely,

[REDACTED]

[REDACTED]

[REDACTED]

London Borough of Barking and Dagenham

PLANNING DECISION NOTICE

TOWN AND COUNTRY PLANNING ACT 1990 (AS AMENDED) TOWN AND COUNTRY PLANNING (DEVELOPMENT MANAGEMENT PROCEDURE) (ENGLAND) ORDER 2015 (AS AMENDED)

Agent:

Applicant:

Spectrum Building, 22 FRESHWATER
ROAD
DAGENHAM

PART 1 - PARTICULARS OF THE APPLICATION

Application Number: 23/00663/FULL
Application Type: Full Planning Permission
Development Description: Remedial work to external cladding to the fifth and sixth floors comprising of the removal of existing non-compliant cladding and replacing with compliant cladding, and the removal of all window solid spandrel panels and balcony privacy screens and replacing with compliant solid panels
Site Address: Spectrum Building, 22 Freshwater Road, Dagenham, Barking And Dagenham, RM8 1EH
Date Received: 02 May 2023
Date Validated: 12 May 2023

PART 2 - PARTICULARS OF THE DECISION

The London Borough of Barking and Dagenham, as Local Planning Authority, in pursuance of its powers under the above mentioned Act, Rules, Orders and Regulations made thereunder, hereby gives notice that PLANNING PERMISSION has been **GRANTED** for the carrying out of the development referred to in PART 1 hereof and as described and shown on the plan(s) and document(s) submitted with the application, subject to the conditions and reasons listed below.

Conditions:

1. TIME LIMIT

The development hereby permitted shall be commenced before the expiration of three years from the date of this permission.

Reason: To comply with the requirements of Section 91 of the Town and Country Planning Act 1990 (as amended by Section 51 of the Planning and Compulsory Purchase Act 2004).

2. APPROVED PLANS

The development hereby approved shall only be carried out in accordance with the following approved plans and documents:

- Site Location Plan
- Existing and Proposed Fifth Floor GA Plan - Drawing no. 23004 GAA A1 ZZ DR T 2001 - Dated 17/04/2023
- Existing and Proposed Sixth Floor GA Plan - Drawing no. 23004 GAA A1 ZZ DR T 2002 - Dated 17/04/2023
- Existing and Proposed South and East Elevations - Drawing no. 23004 GAA A1 ZZ DR T 2003 - Dated 18/04/2023
- Existing and Proposed North and West Elevations - Drawing no. 23004 GAA A1 ZZ DR T 2004 - Dated 18/04/2023
- Existing and Proposed Spandrel Conditions and Cladding Systems - Drawing no. 23004-GAA-A1-ZZ-DR-T-2005 - Dated 18/04/2023
- North Elevation GA Plan - Drawing no. 2927.WD.20 - Dated 18/07.2013
- South Elevation GA Plan - Drawing no. 2927.WD.21 - Dated 18/07.2013

No other drawings or documents apply.

Reason: To ensure that the development is undertaken in accordance with the approved drawing(s) and document(s), to ensure that the finished appearance of the development will enhance the character and visual amenities of the area and to satisfactorily protect the residential amenities of nearby occupiers.

3. MATERIALS

The development shall be constructed in accordance with the external materials shown on the approved drawings and to the satisfaction of the Local Planning Authority.

Reason: In order to protect or enhance the character and amenity of the area and to ensure an exemplar finish to the building.

4. CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN (CEMP)

No development shall commence, including any works of demolition, until a Construction Environmental Management Plan (CEMP) has been submitted to and approved in writing by the Local Planning Authority. This Plan shall incorporate details of:

- a) the parking of site operatives' vehicles;
- b) loading and unloading of plant and materials;
- c) storage of plant and materials used in constructing the development;
- d) measures to control the emission of dust, dirt and emissions to air during construction; such measures to accord with the guidance provided in the document "The Control of Dust and Emissions during Construction and Demolition", Mayor of London, July 2014;
- e) noise and vibration control;
- f) a waste management plan for recycling/disposing of waste resulting from demolition and construction works.

Demolition and construction work and associated activities, other than internal works inaudible outside the site boundary, are only to be carried out between the hours of 08:00 and 18:00 Monday to Friday and 08:00 and 13:00 Saturday, with no work on Sundays or public holidays without the prior written permission of the Local Planning Authority. Any works which are associated with the generation of ground borne vibration are only to be carried out between the hours of 08:00 and 18:00 Monday to Friday.

Demolition and construction work and associated activities are to be carried out in accordance with the recommendations contained within British Standard 5228:2009, "Code of practice for noise and vibration control on construction and open sites", Parts 1 and 2. Once approved the Plan shall be adhered to throughout the construction period for the development.

Reason: The CEMP is required prior to commencement of development in order to reduce the environmental impact of the construction and the impact on the amenities of neighbouring residents Plan Document, and in accordance with policy BP8 of the Borough Wide Development Policies.

Summary of Policies and Reasons:

In deciding to grant planning permission in this instance, Be First, working in partnership the London Borough of Barking and Dagenham, found the proposal to be acceptable following careful consideration of the relevant provisions of the National Planning Policy Framework, the Development Plan and all other relevant material considerations. Upon review, the London Borough of Barking and Dagenham is satisfied that any potential material harm resulting from the proposal's impact on the surrounding area would be reasonably mitigated through compliance with the conditions listed above.

The following policies are of particular relevance to this decision and for the imposition of the abovementioned conditions:

National Planning Policy Framework (NPPF) (DLUHC, July 2021)

London Plan (March 2021)

- Policy D4 Delivering Good Design
- Policy D12 Fire Safety

Local Development Framework (LDF) Core Strategy (July 2010)

- Policy CP3 High Quality Built Environment

Local Development Framework (LDF) Borough Wide Development Plan Document (DPD) (March 2011)

- Policy BP8 Protecting Residential Amenity
- Policy BP11 Urban Design

The London Borough of Barking and Dagenham's Draft Local Plan: (Regulation 19 Consultation Version, September 2020)

The London Borough of Barking and Dagenham's Draft Local Plan: (Regulation 19 Consultation Version, September 2020) is at an "advanced" stage of preparation. Having regard to NPPF paragraph 48 the emerging document is now a material consideration and significant weight will be given to the emerging document in decision-making.

- Policy SPDG1 Delivering Growth
- Policy SP2 Delivering a well-designed, high quality and resilient built environment
- Policy DMD1 Securing High Quality Design

The above policies can be viewed on the Council's website: www.lbbd.gov.uk/planning.

Working with the applicant:

In dealing with this application, Be First, working in partnership with the London Borough of Barking and Dagenham, has implemented the requirements of the National Planning Policy Framework and of the Town and Country Planning (Development Management Procedure) (England) Order 2015 (as amended) to work with the Applicant in a positive and proactive manner. As with all applicants, Be First has made available detailed advice in the form of statutory policies and all other relevant guidance, as well as offering a full pre-application advice service, so as to ensure the applicant has been given every opportunity to submit an application which is likely to be considered favourably.

This development is potentially liable for payment of both the Mayor of London and London Borough of Barking and Dagenham's Community Infrastructure Levies (CIL). Further information about CIL, including the process that must be followed and forms that will be required, can be found on the Council's website: <https://www.lbbd.gov.uk/developer-contributions-cil-and-s106> . CIL forms can be submitted to: S106CIL@befirst.london

DATE OF DECISION: 03.07.2023

Yours sincerely,

[Redacted Signature]

[Redacted Name]

[Redacted Title]

London Borough of Barking and Dagenham

TOWN AND COUNTRY PLANNING ACT 1990 (AS AMENDED)
Applicant's Rights following the Grant or Refusal of permission

1. Appeals to the Secretary of State

Should you (an applicant/agent) feel aggrieved by the decision of the council to either refuse permission or to grant permission subject to conditions, you can appeal to the Secretary of State for the Department of Communities and Local Government – Section 78 of the Town and Country Planning Act 1990 / Sections 20 and 21 of the Planning (Listed Building and Conservation Areas) Act 1990. Any such appeal must be made within the relevant timescale for the application types noted below, beginning from the date of the decision notice (unless an extended period has been agreed in writing with the council):

- **Six (6) months:** Full application (excluding Householder and Minor Commercial applications), listed building, conservation area consent, Section 73 'variation/removal', Section 73 'minor-material amendment', extension of time and prior approval applications.
- **Twelve (12) weeks:** Householder planning, Householder prior approval and Minor Commercial applications.
- **Eight (8) weeks:** Advertisement consent applications.
- **No timescale:** Certificate of lawful development (existing/proposed) applications.

Where an enforcement notice has been issued the appeal period may be significantly reduced, subject to the following criteria:

- The development proposed by your application is the same or substantially the same as development that is currently the subject of an enforcement notice: **28 days of the date of the application decision.**
- An enforcement notice is served **after the decision on your application** relating to the same or substantially the same land and development as in your application and if you want to appeal against the council's decision you are advised to appeal against the Enforcement Notice and to do so before the Effective Date stated on the Enforcement Notice.

Appeals must be made using the prescribed form(s) of The Planning Inspectorate (PINS) obtained from www.planning-inspectorate.gov.uk or by contacting 03034445000. A copy of any appeal should be sent both to PINS and the council (attn: Planning Appeals Officer).

The Secretary of State can allow a longer period for giving notice of an appeal but will not normally be prepared to use this power unless there are exceptional/special circumstances.

The Secretary of State can refuse to consider an appeal if the council could not have granted planning permission for the proposed development or could not have granted it without the conditions it imposed, having regard to the statutory requirements and provisions of the Development Order and to any direction given under the Order. In practice, it is uncommon for the Secretary of State to refuse to consider appeals solely because the council based its decision on a 'direction given by the Secretary of State'.

2. Subsequent Application Fees

No planning fee would be payable should a revised planning application be submitted within 12 months of the decision. This 'fee waiver' is permitted only where the new application meets the following criteria:

- the applicant is the same as the applicant of the original application
- site boundary is the same as the site boundary of the original application
- the nature of development remains the same.

3. Purchase Notices

Should either the council or the Secretary of State refuse permission or to grant permission subject to conditions, the owner may claim that the land cannot be put to a reasonably beneficial use in its existing state nor through carrying out of any development which has been or could be permitted. In such a case, the owner may serve a purchase notice on the council.

This notice will require the council to purchase the owner's interest in the land in accordance with the provisions of Part IV of the Town and Country Planning Act 1990 and Section 32 of the Planning (Listed Buildings Conservation Areas) Act 1990.

4. Compensation

In certain circumstances compensation may be claimed from the council if permission is refused or granted subject to condition(s) by the Secretary of State on appeal or on reference to the Secretary of State. These circumstances are set out in Section 114 and related provisions of the Town and Country Planning Act 1990 and Section 27 of the Planning (Listed Buildings and Conservation Areas) Act 1990.

THE BUILDING REGULATIONS 2010 (AS AMENDED)

Building Control

Most construction requires Building Control.

Our Building Control team are here to make that process as streamlined as possible while protecting you, the property owner.

The simplest way to get started is to register and apply on our portal:

<https://online-befirst.lbbd.gov.uk/>

As Building Control, we will check the work carried out to ensure that it complies with current regulations.

Unlike private approved inspectors, we are not a business that will close due to financial or regulatory issues, nor will we cancel an application once it has been accepted and paid for.

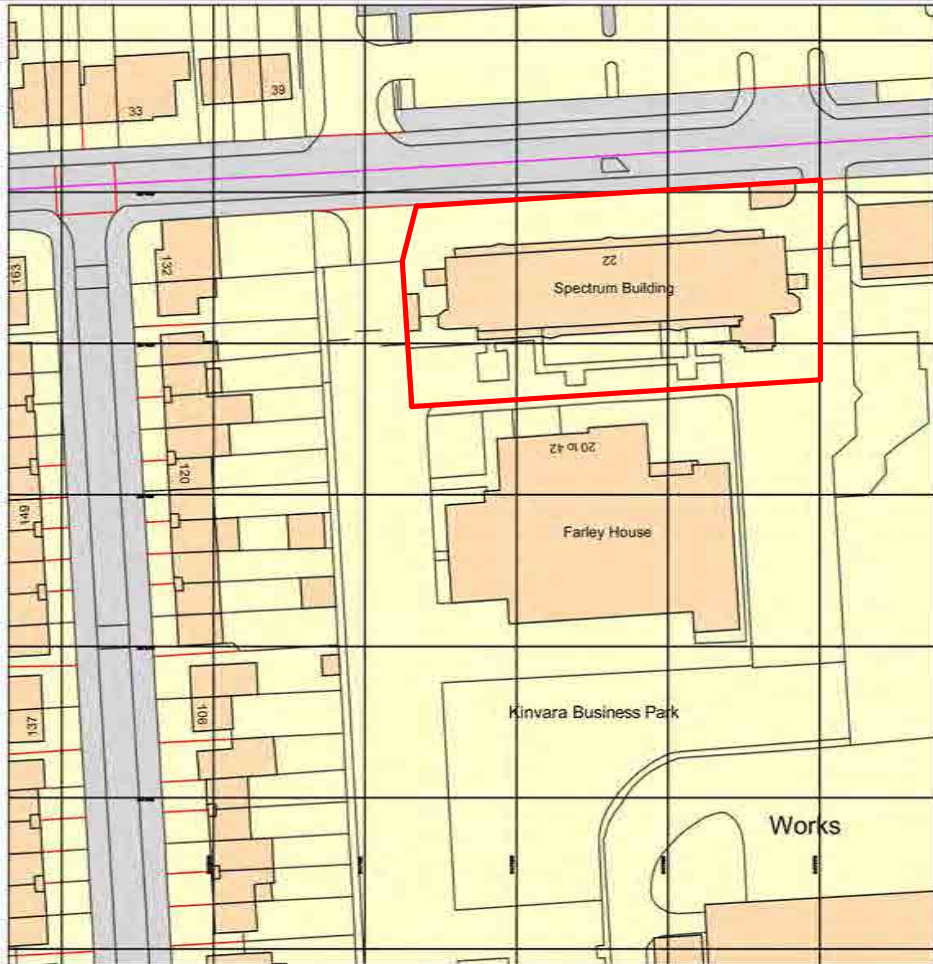
If you would like further information before applying or need to discuss a large commercial or residential project, please email buildingcontrol@befirst.london with any queries or to request a call.



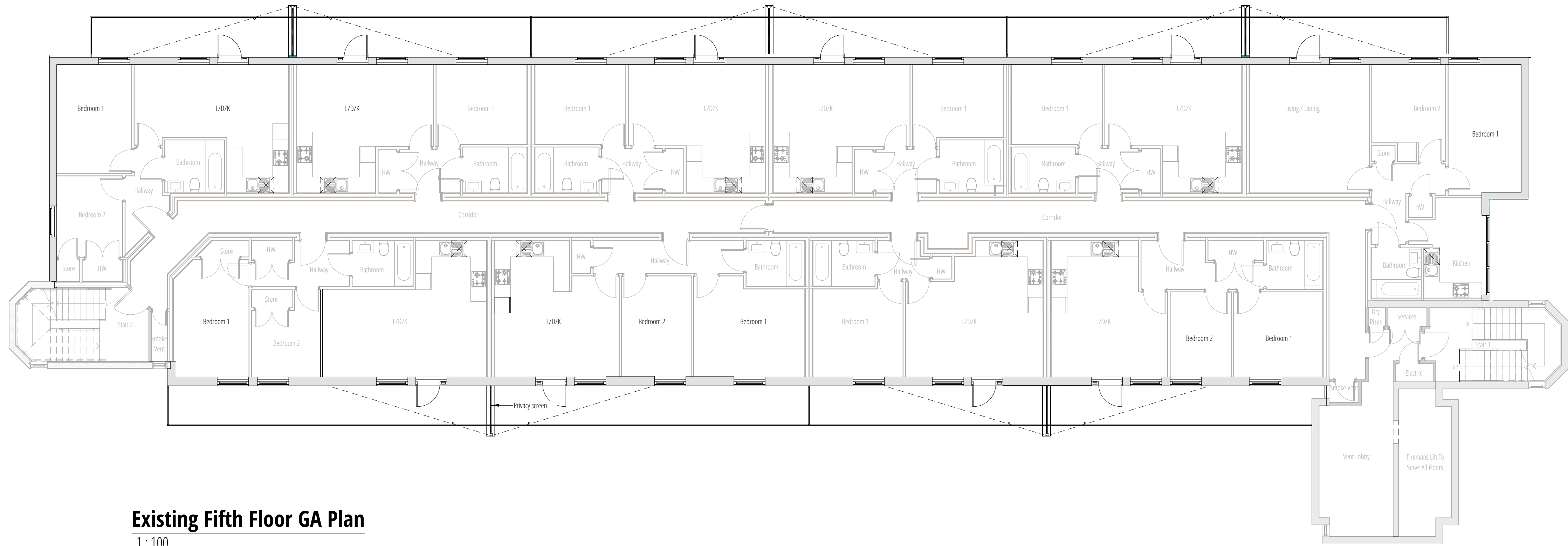
APPENDIX B

DRAWINGS

- Site Location Plan
- 23004-GAA-A1-ZZ-DR-T-2001– Existing and Proposed Fifth Floor Plans
- 23004-GAA-A1-ZZ-DR-T-2002 - Existing and Proposed Sixth Floor GA plans
- 23004-GAA-A1-ZZ-DR-T-2003 - Existing and Proposed South and East Elevations
- 23004-GAA-A1-ZZ-DR-T-2004 - Existing and Proposed North and West Elevations
- 23004-GAA-A1-ZZ-DR-T-2005 - Existing and Proposed Spandrel Conditions and cladding system
- 2927.WD.20 - Existing General Arrangements North Elevation
- 2927.WD.21 - Existing General Arrangements South Elevation

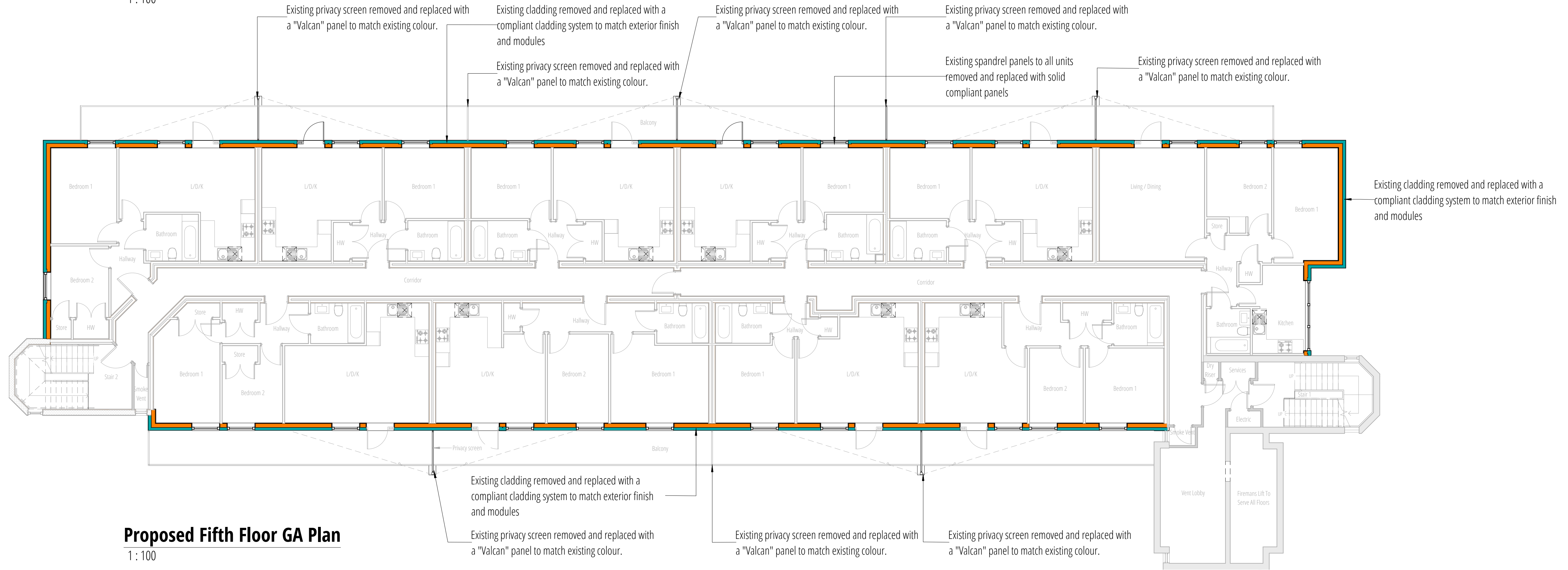


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Existing Fifth Floor GA Plan

1 : 100



Proposed Fifth Floor GA Plan

1 : 100

THIS IS A PLANNING APPLICATION MADE IN TERMS OF THE BUILDING SAFETY ACT 2022 FOR REMEDIAL WORK TO THE EXTERNAL CLADDING OF THE FIFTH AND SIXTH FLOORS

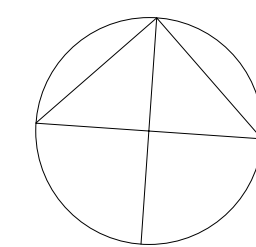
The scope of work comprises the removal of existing non-compliant cladding and replacing with compliant cladding, and the removal of all window solid spandrel panels and balcony privacy screens and replacing with compliant solid panels

NOTES:

1. THIS DRAWING IS COPYRIGHT AND MUST NOT BE RE-PRODUCED IN WHOLE OR IN PART WITHOUT WRITTEN PERMISSION OF GAA DESIGN.
2. THIS DRAWING REPRESENTS DESIGN INTENT AND CONCEPT ONLY. HENCE IT CAN BE SCALED FOR PLANNING PURPOSES ONLY.
3. THIS DOCUMENT AND ALL ASSOCIATED DOCUMENTS ARE PREPARED FOR SPECIFIC SITE AND EVENT, AND INCORPORATE CALCULATIONS AND MEASUREMENTS AVAILABLE FROM THE CLIENT AT THE TIME OF DRAFTING.
4. THE RECIPIENT AGREES TO PROTECT THE CONTENTS FROM DISTRIBUTION AND DISSEMINATION EXCEPT AS REQUIRED FOR THE SPECIFIC EVENT NAMED, WITHOUT THE WRITTEN PERMISSION OF THE DESIGNER.
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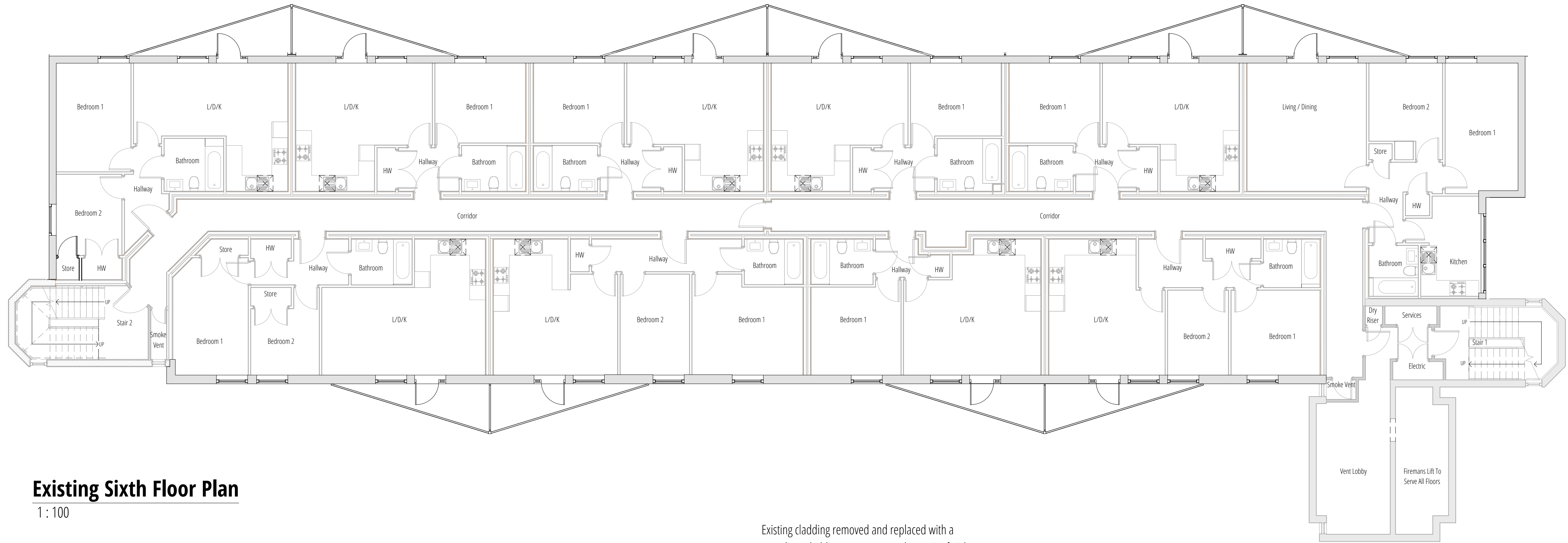
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SCALE 1:100 @ A1



PROJECT NAME
Spectrum House
DRAWING TITLE
Proposed & Existing Floor Plans Fifth Floor
PROJECT NUMBER
23004
SCALE
As Indicated
STAGE
For Stage Approval

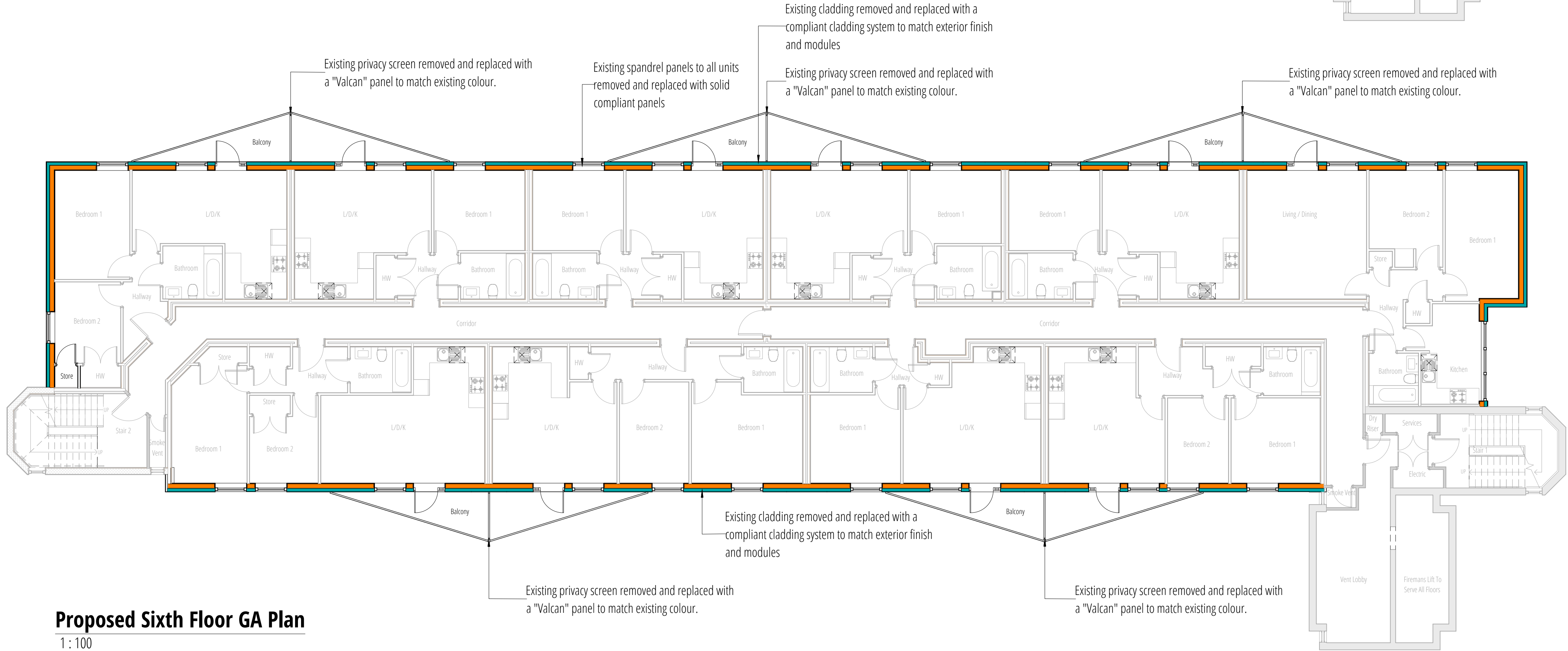
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23004-GAA-A1-ZZ-DR-T-2001
DATE
17/04/2023
STATUS
S4
REV. NO.
P02
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REVIEWED
SB
APPROVED
SB





Existing Sixth Floor Plan

1 : 100



Proposed Sixth Floor GA Plan

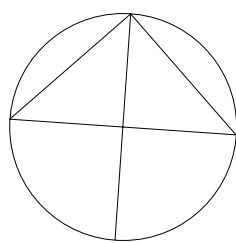
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THIS IS A PLANNING APPLICATION MADE IN TERMS OF THE BUILDING SAFETY ACT 2022 FOR REMEDIAL WORK TO THE EXTERNAL CLADDING OF THE FIFTH AND SIXTH FLOORS

The scope of work comprises the removal of existing non-compliant cladding and replacing with compliant cladding, and the removal of all window solid spandrel panels and balcony privacy screens and replacing with compliant solid panels

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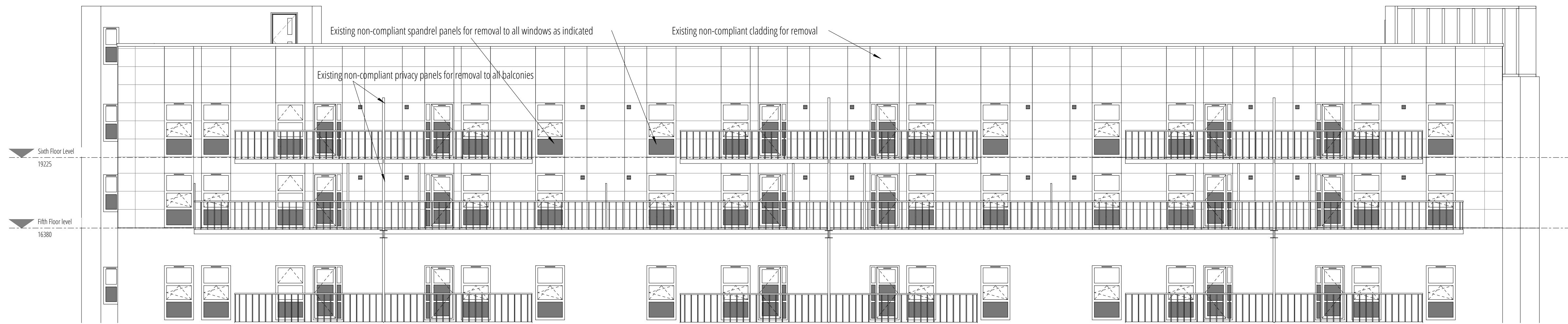
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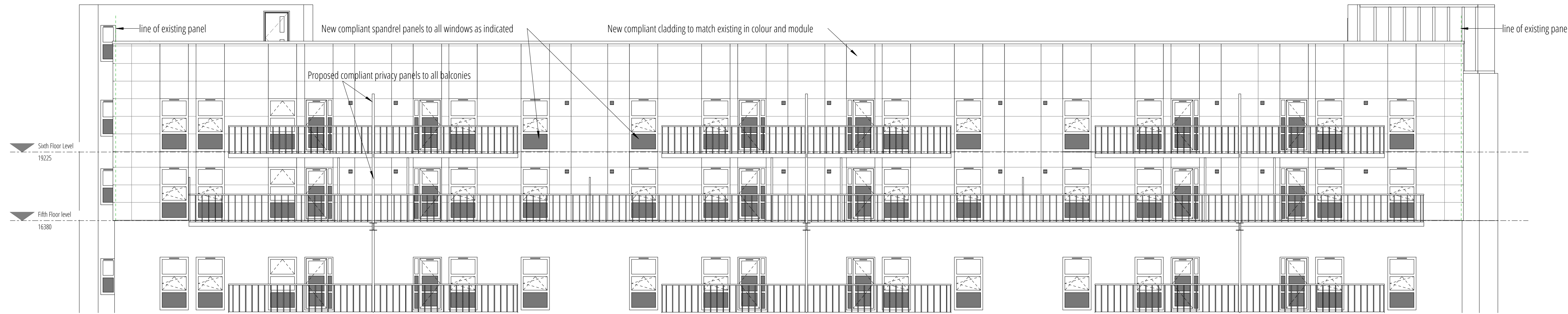
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Spectrum House
DRAWING TITLE
Proposed and Existing Floor Plans - Sixth Floor
PROJECT NUMBER
23004
SCALE
As Indicated
STAGE
For Stage Approval

DOCUMENT NUMBER
23004-GAA-A1-ZZ-DR-T-2002
DATE
17/04/2023
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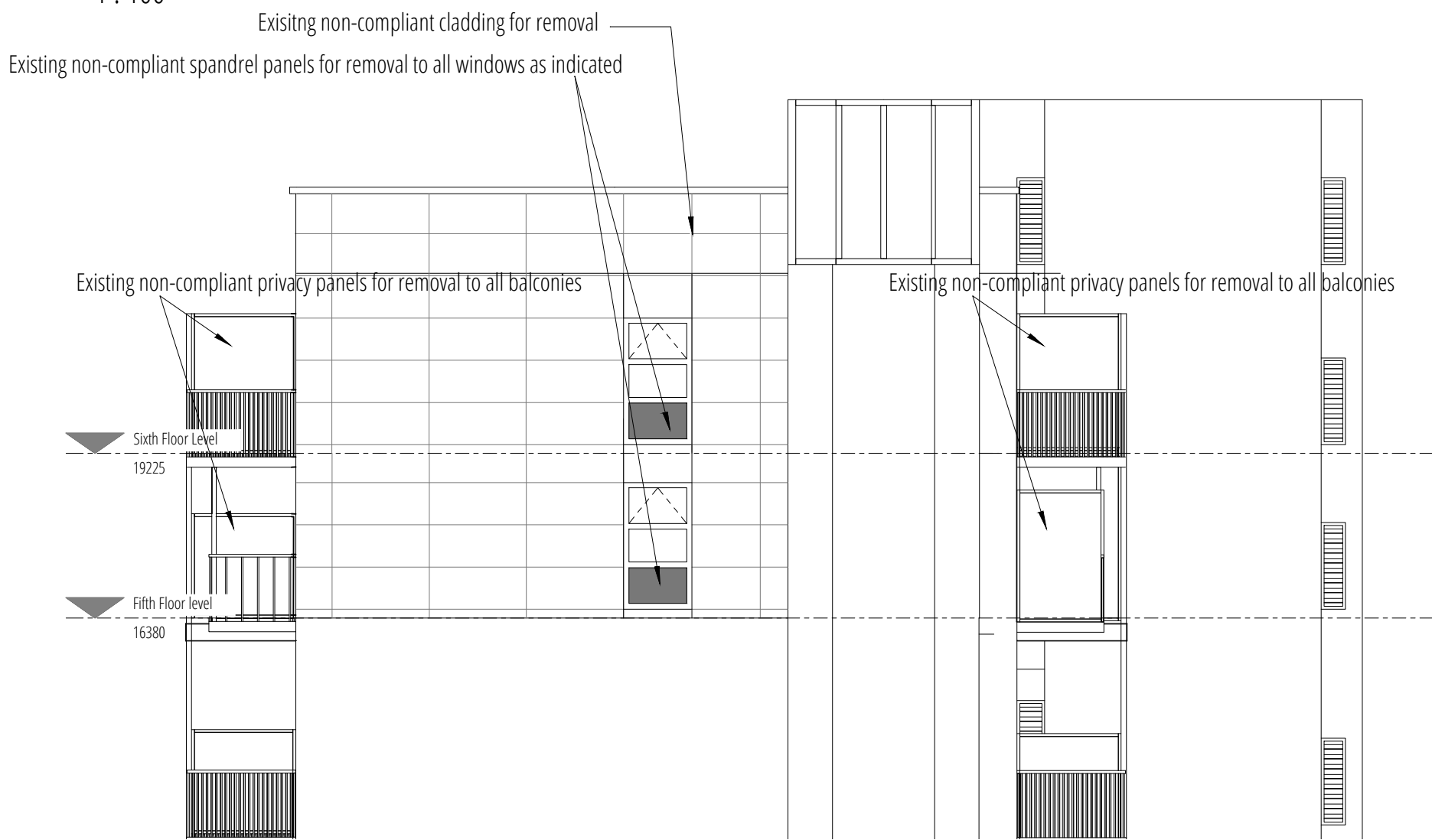




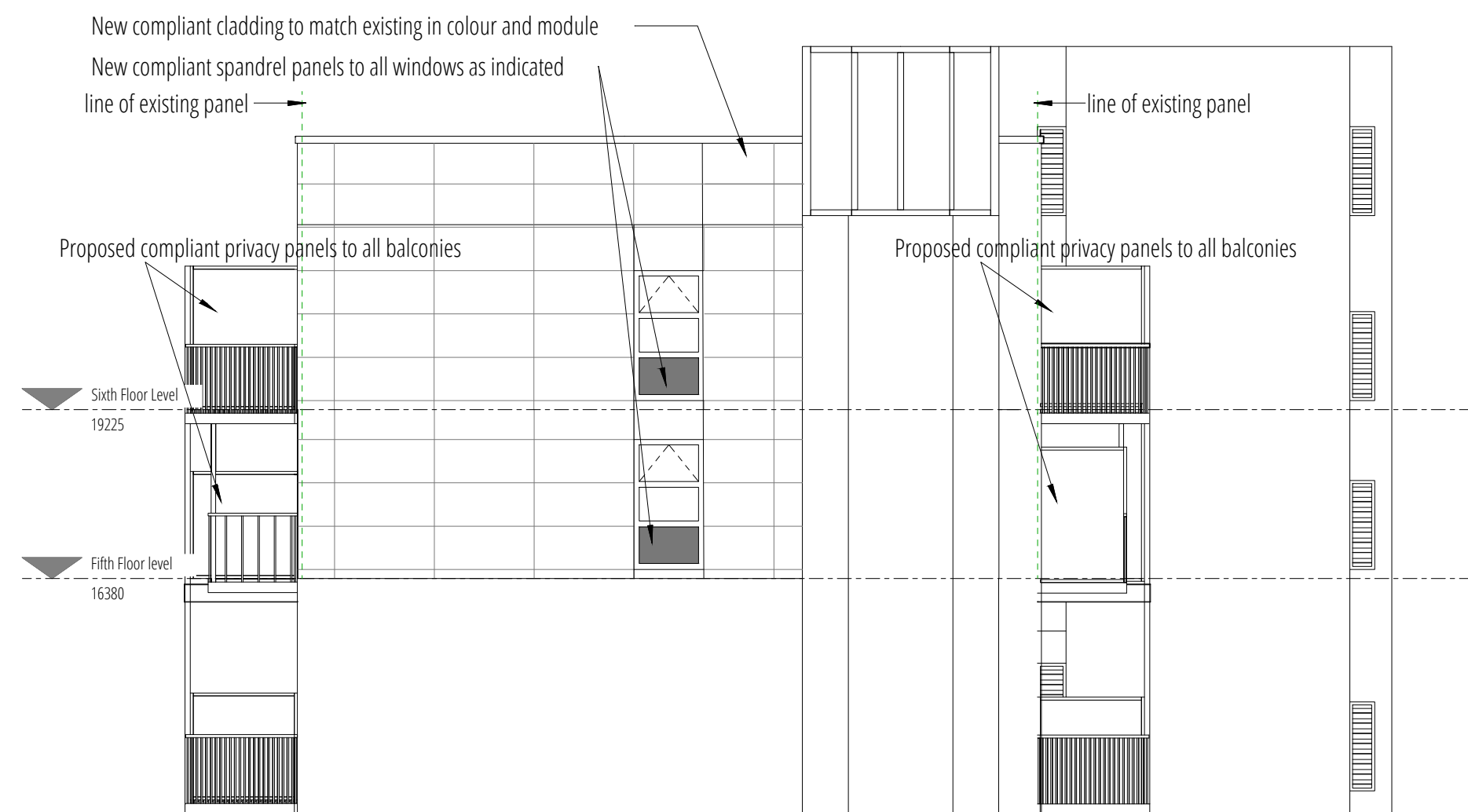
Existing South Elevation Fifth & Sixth Floors
1 : 100



Proposed South Elevation Fifth & Sixth Floors
1 : 100



Existing East Elevation Fifth & Sixth Floors
1 : 100



Proposed East Elevation Fifth & Sixth Floors
1 : 100

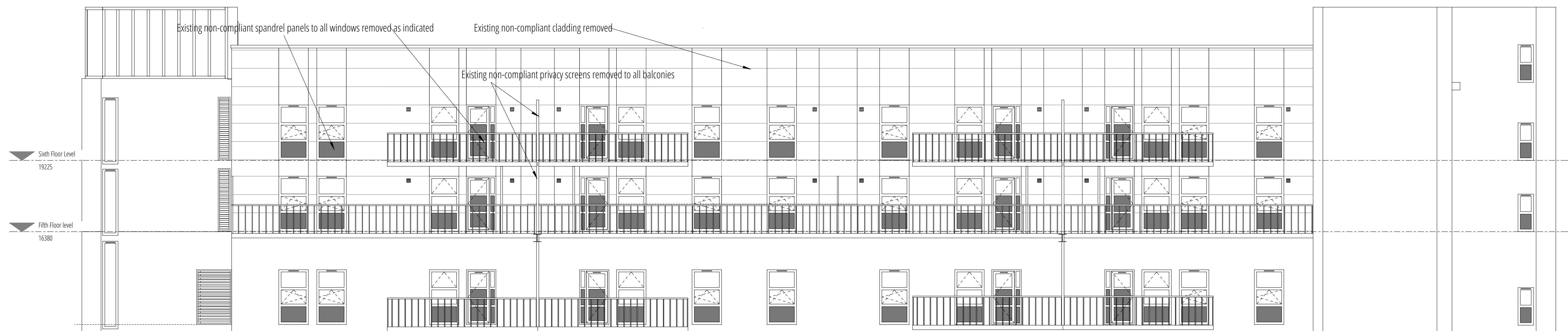
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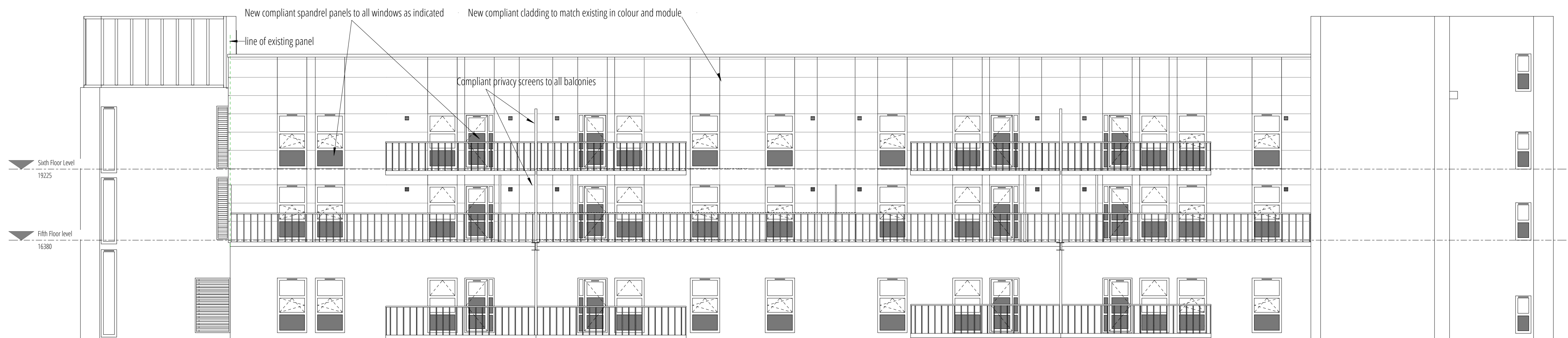
PROJECT NAME
Spectrum House
DRAWING TITLE
South & East Elevations Existing & Proposed
PROJECT NUMBER
23004
SCALE
As Indicated
STAGE
For Stage Approval

DOCUMENT NUMBER
23004-GA-A1-ZZ-DR-T-2003
DATE
18/04/2023
STATUS
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P01
DRAWN
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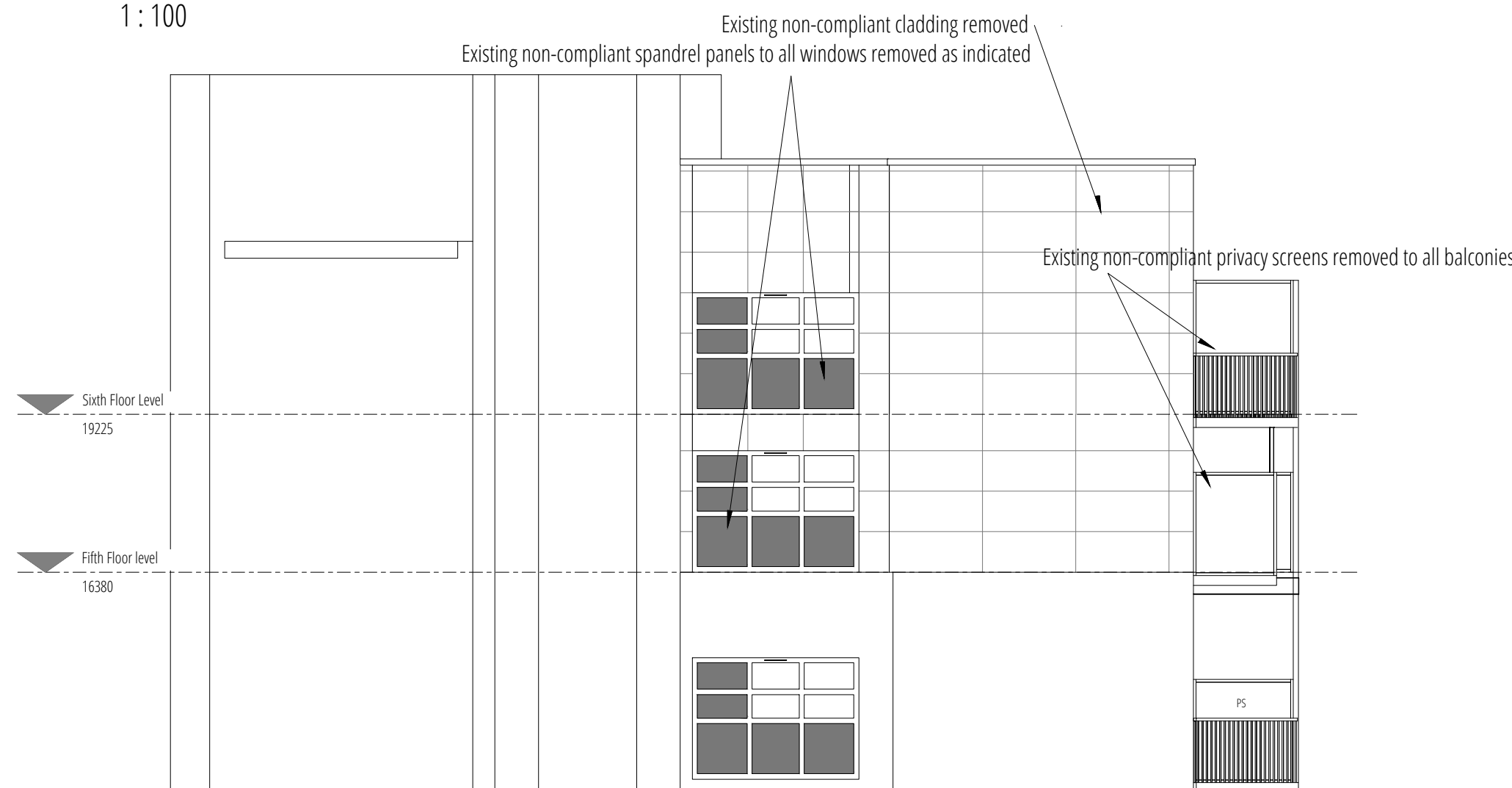




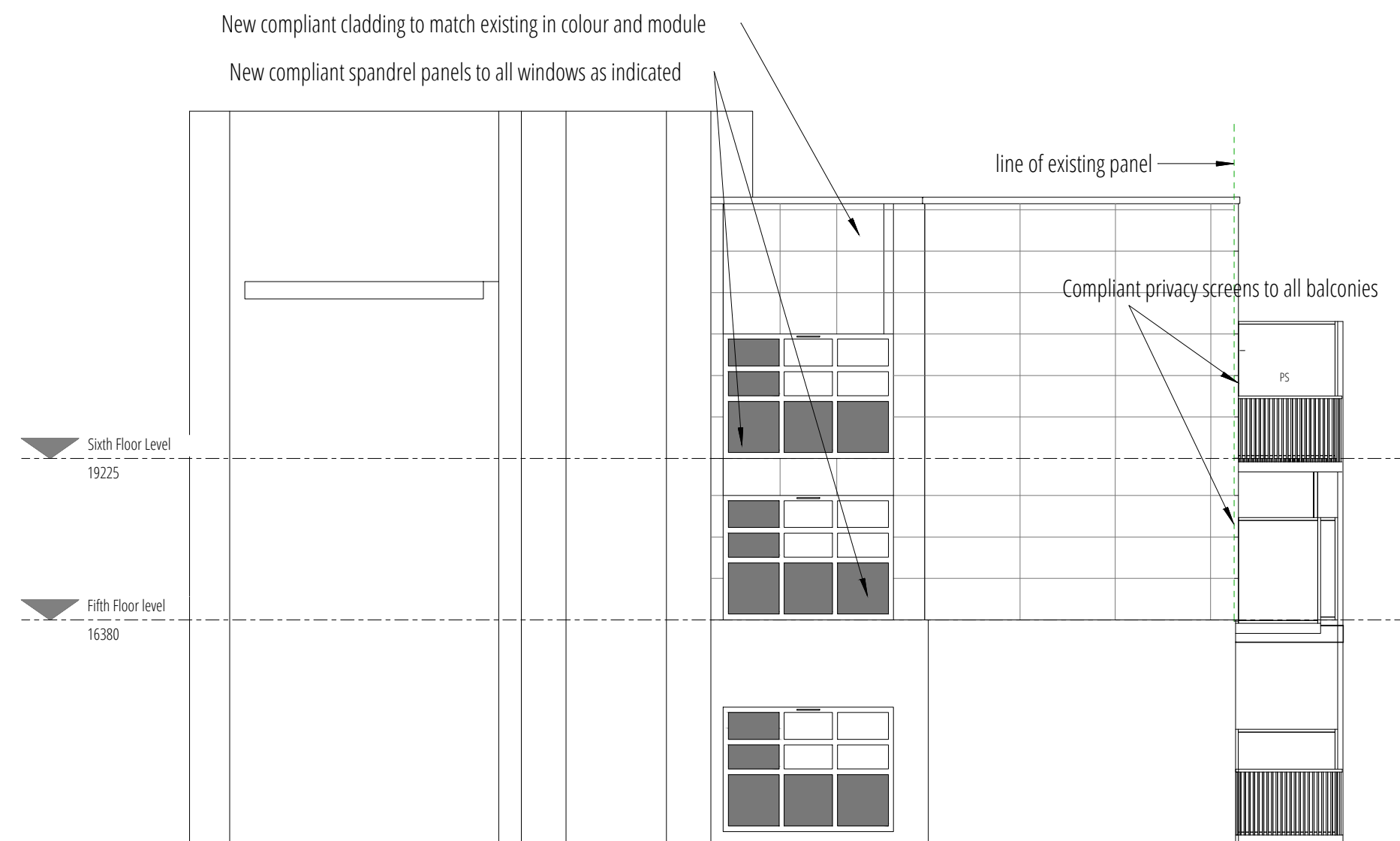
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1:100



Proposed North Elevation Fifth & Sixth Floors
1:100



Existing West Elevation Fifth & Sixth Floors
1:100



Proposed West Elevation Fifth & Sixth Floors
1:100

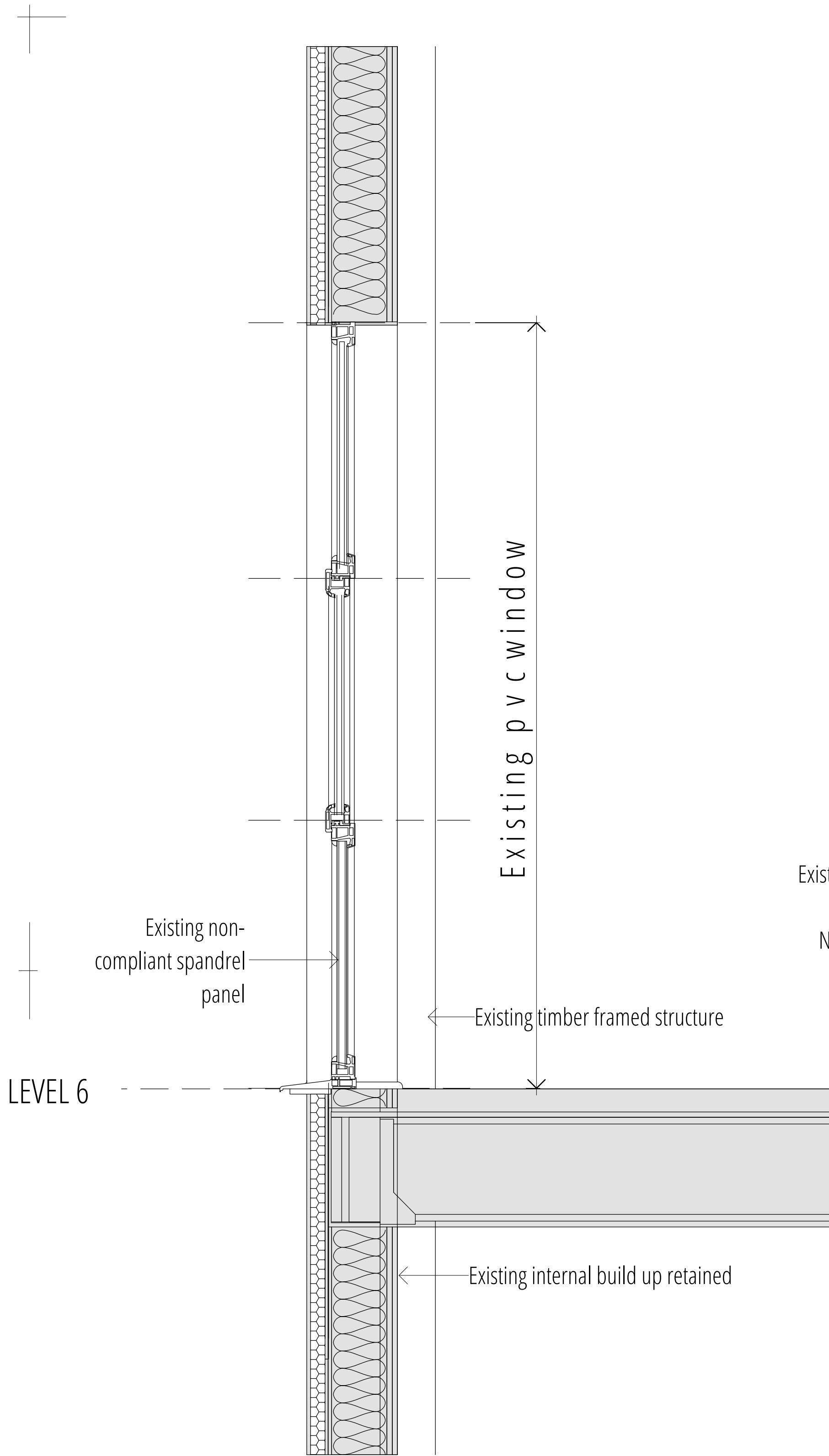
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0m 2m 4m 6m 8m 10m
SCALE 1:100 @ A1

PROJECT NAME
Spectrum House
DRAWING TITLE
North & West Elevations Existing & Proposed
PROJECT NUMBER
23004
SCALE
As Indicated
STAGE
For Stage Approval

DOCUMENT NUMBER
23004-GAA-A1-ZZ-DR-T-2004
DATE
18/04/2023
STATUS
S4
REV.NO.
P01
DRAWN
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SB
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SB

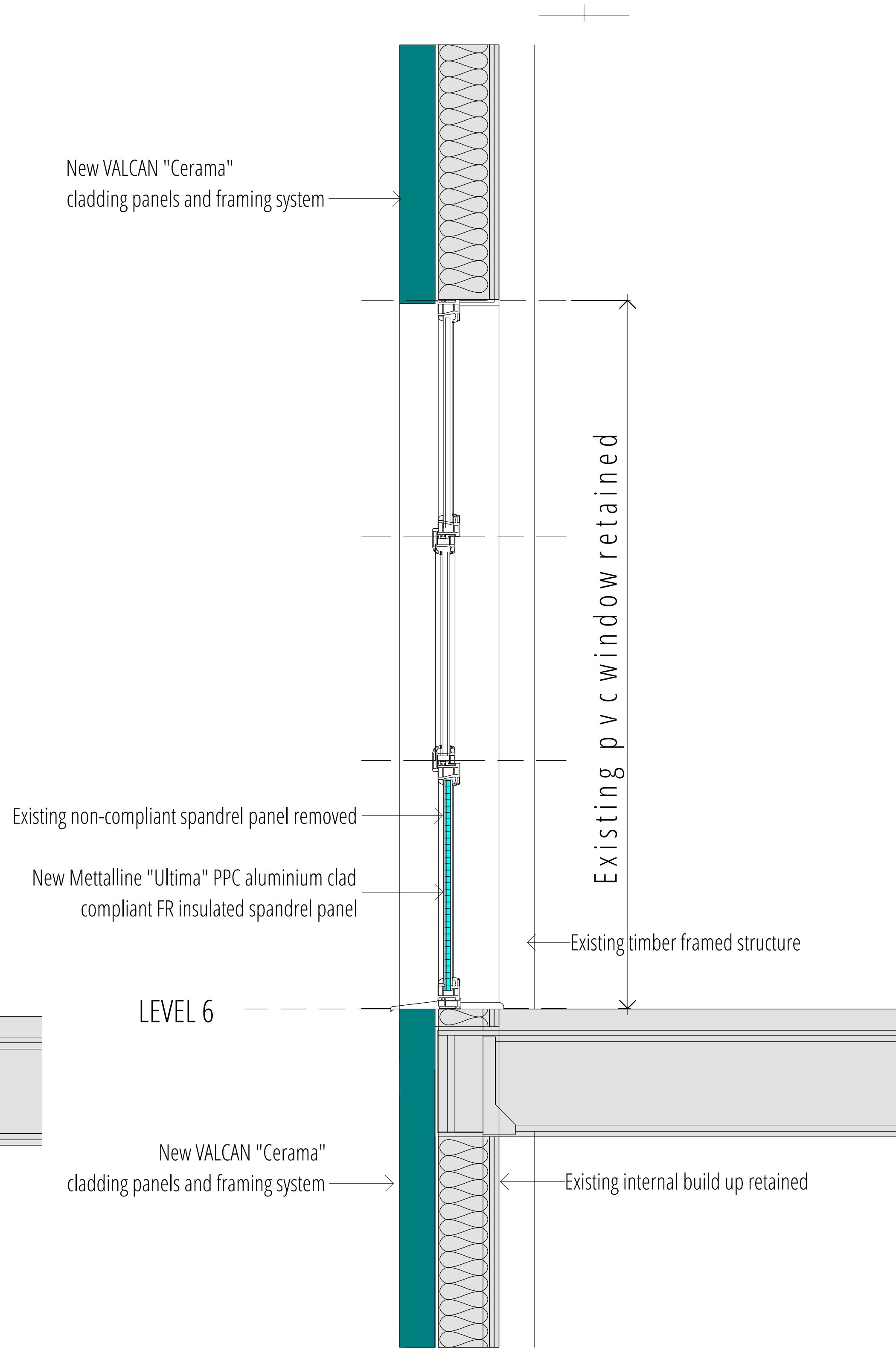




1 **Proposed**
Scale 1:50

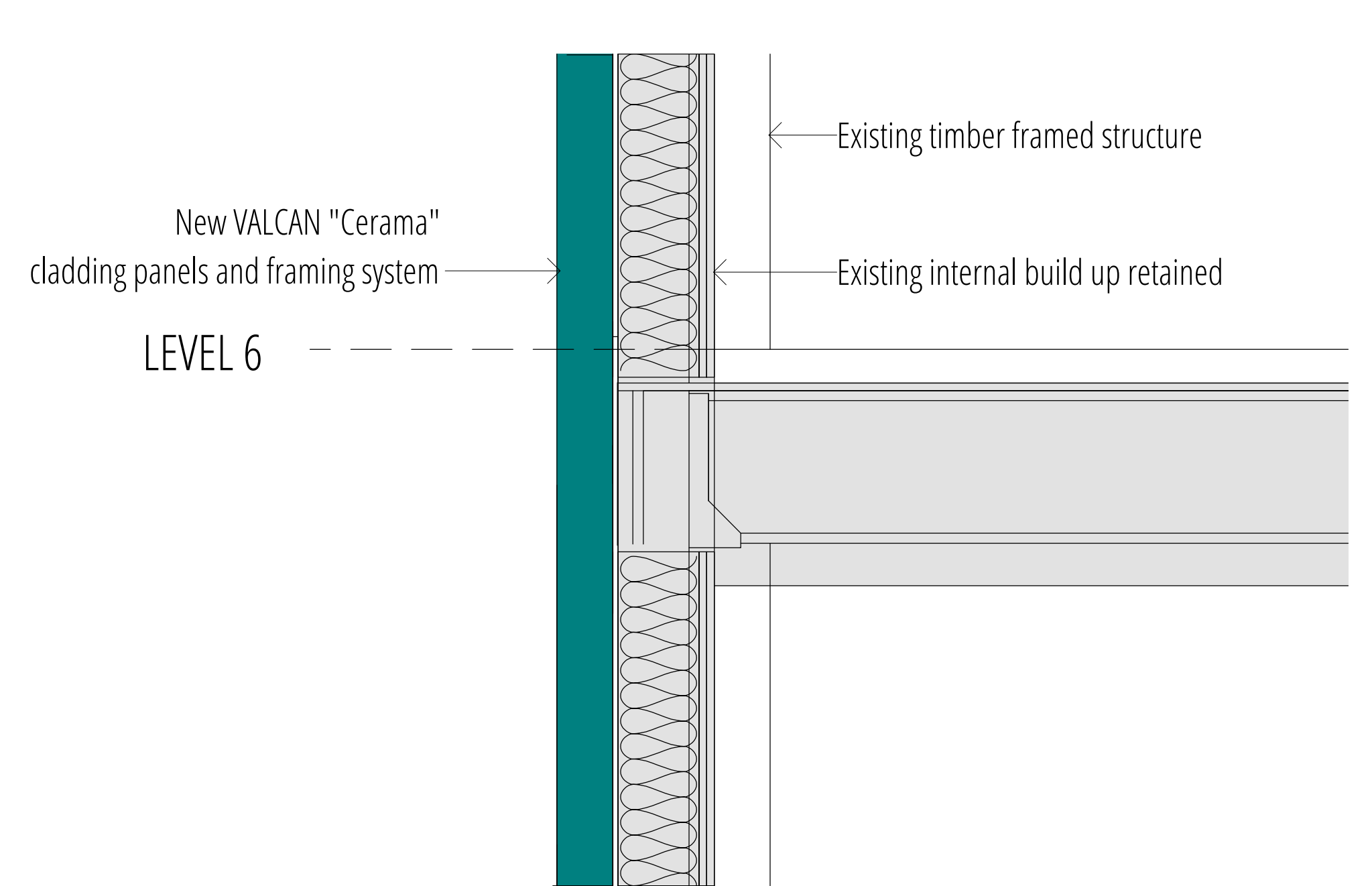
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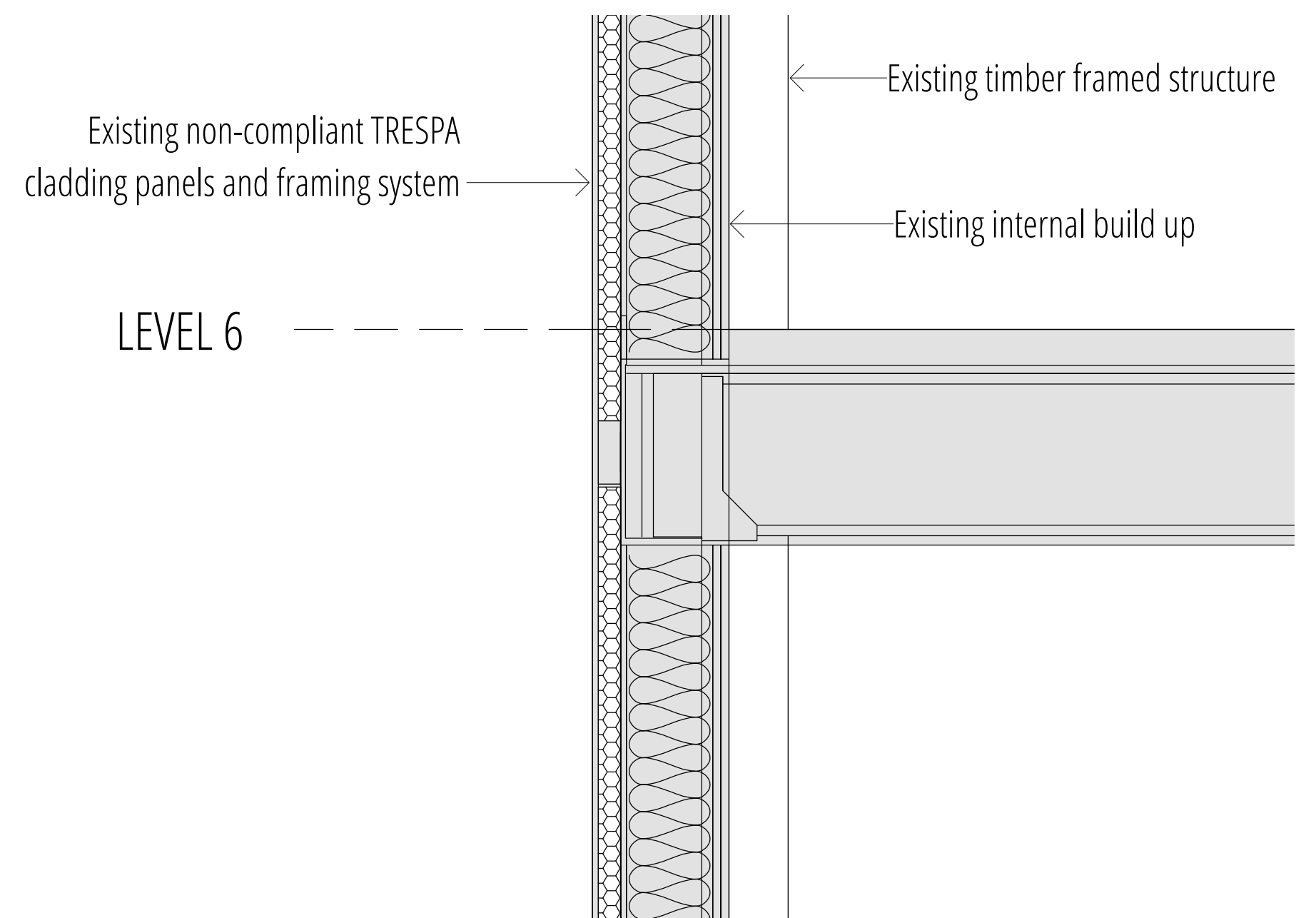
Proposed Spandrel Condition

1 : 20



Proposed Cladding System

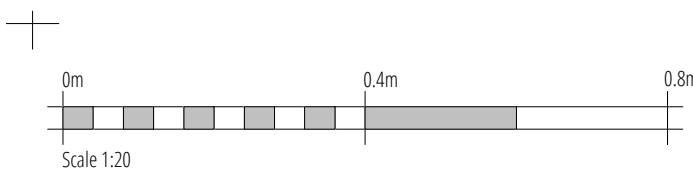
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Existing Cladding System

1 : 20

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PROJECT NAME
Spectrum House

DRAWING TITLE
Typical Sections

PROJECT NUMBER
23004

SCALE
1:20

STAGE
For Stage Approval

DOCUMENT NUMBER
23004-GAA-A1-ZZ-DR-T-2005

DATE
18/04/2023

STATUS
S4

REV. NO.
P02

DRAWN
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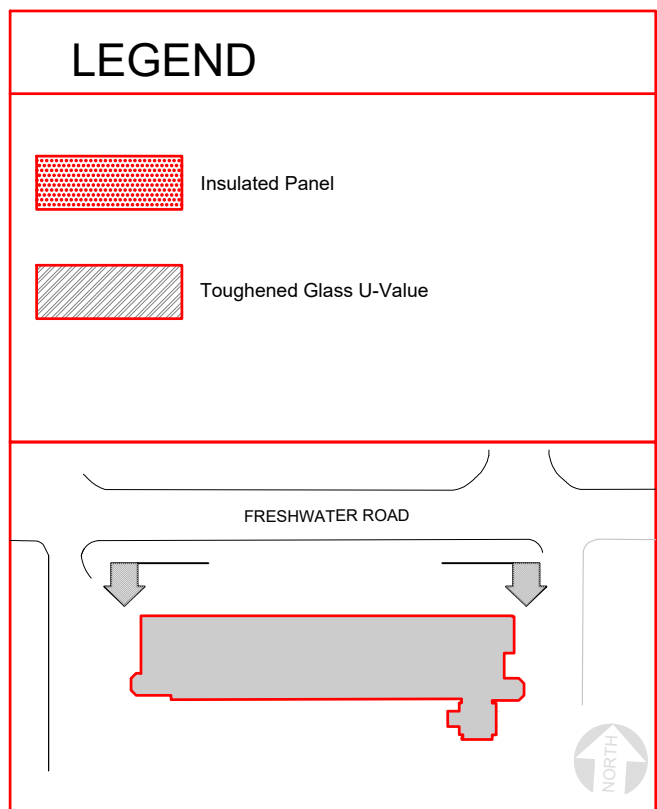
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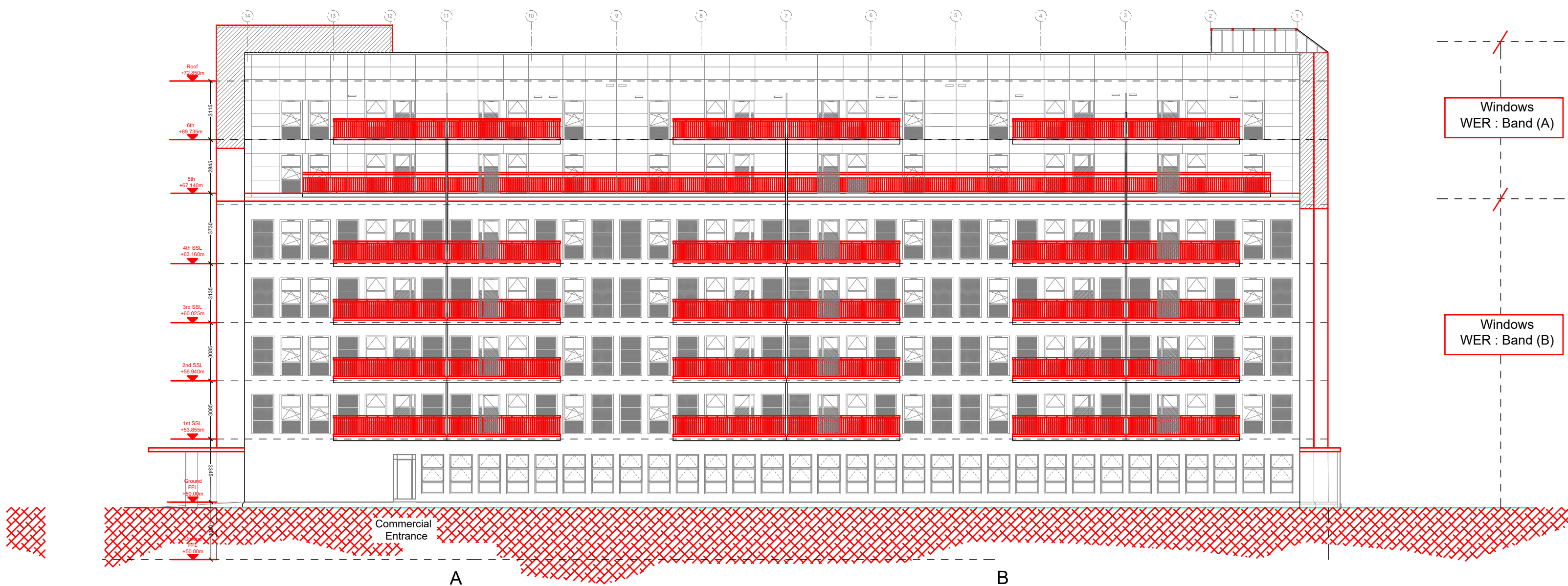
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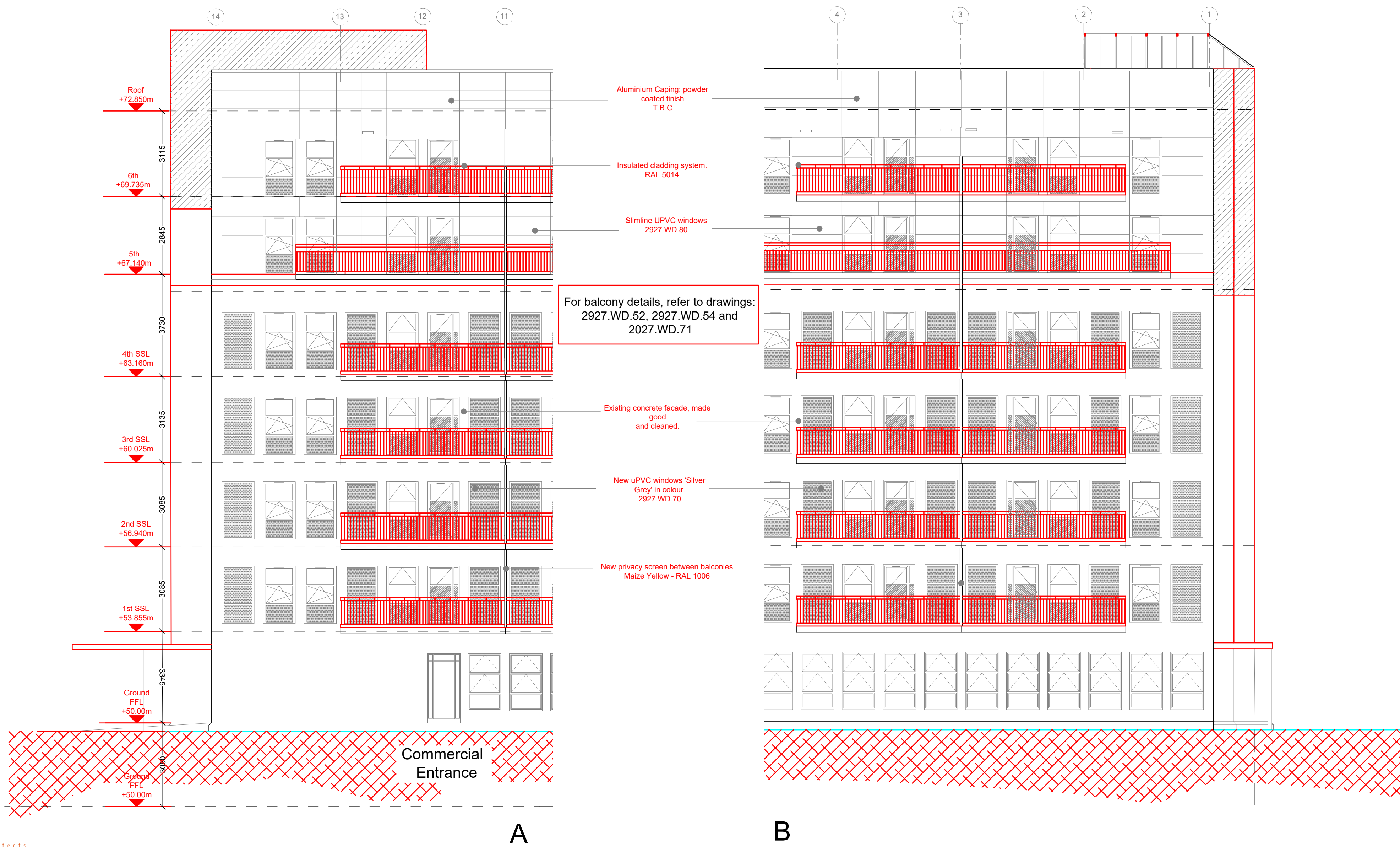
* ALL LAYOUTS AND AMENDMENTS TO BE APPROVED BY ALL STATUTORY BODIES



Key Plan - NTS



North Elevation 1:200 @ A1

**PART K: Protection from Falling Collision and Impact**

- All guarding to be in compliance with PART K of the Building Regulations guarding to be designed so that:
- A sphere 100mm cannot pass through any openings in the guarding
- Children will not be able to climb the guarding.
- The height of the guarding is 1100mm above the floor level, to which the balustrade is guarding.
- The guarding should be able to resist a horizontal force of 0.36KN as detailed within PART K 1.3 of the Building Regulations.

PART N: Glazing - Safety In Relation to Impact - Opening and Cleaning**Glazing Safety**

- To comply fully to Approved Document N1 of the Building Regulations and British Standards, BS 6262:1982, BS 6206:1981, BS 5713:1979. All glazing units to be BS: Kitemarked and with The NHBC Standards - 6.7.0 D76.7-M7 & 6.7 - S4.

Glazing - Materials and Glazing Protection

- Glazing generally to BS 6206: Impact performance requirements to flat safety glass and safety plastics for use in buildings. All glazing in 'critical locations' i.e. curtain walling to be glazed and SGG Securi glass or similar approved.
- N3 - all windows to be operable safely. Remote windows (including roof lights) to be operable mechanically.
- Safe access for window cleaning to be considered (in accordance with HSE guidance). This can be provided by good cleaning access through:
 - Easy clean hinges
 - Fixed/secured cleaning access
 - Appointment of a specialist cleaner
 - Tilt-and-Turn operation
- All doors and windows are to be 'double glazed' with Low-E 'Argon' filled glass double sealed units. In compliance with Approved Document N1 of The Building Regulations, glazing in 'Critical Locations' i.e. between finish floor level and 1.500m above that level in doors, sideights, casement doors and between finished floor levels and 800mm above that level in windows, the glass shall be laminated or toughened in accordance with BS 6206:1981.

PART L1A/L1B/L2A/L2B: Conservation of Fuel and Power in New/Existing Dwellings

- All building elements/units to be accredited by SAP/IEPC calculations, carried out by a competent Energy Assessor.
- All building elements to meet the minimum U-values as set out in the approved document PART L1A/L1B/L2B (2010 Edition).
- Post construction testing by air leakage is required to satisfy SAP/IEPC and DER/TER calculations, for residential and sBEM for commercial.

Air Leakage Testing

- A pressure test is to be carried out on completed dwellings, as required by Approved Document L, by an approved testing company with ATTMA membership. To comply with Approved Document PART L the test results must show that the air leakage rate is <5m2/h/m2.
- If the test fails then remedial work will be necessary, following further research by the appointed testing company into the cause of the failure, and a re-test will need to be carried out to prove compliance.

Limiting Air Leakage

- In accordance with the 'Accredited Construction Details' for dwellings.
- A mastic seal to be provided around all external joinery, both internally and externally and to the underside of window boards at the junction with plasterboard.
- Drylined external walls are to have a solid ribbon of plaster at points of contact with the floor, the ceiling and adjacent walls. In addition a solid ribbon of plaster shall be provided to the four sides of any opening within the external wall.

Lighting- (subject to BREAM, Eco Homes / Code for sustainable homes)

- Internal lighting - all new unit(s) are to be fitted with a minimum number of Low Energy light fittings. These fittings are to be a complete fitting that will only accept compact fluorescent lamps to a maximum 20W output. In these Unit(s) up to (100% recommended, or 70% minimum) of the light fittings will be 'low energy' as described above. Only the bedrooms will have standard (non low energy) recessed halogen light fittings.
- External lighting - all external lighting shall either be Low Energy light fittings or an installation that will switch off automatically when sufficient daylight is available.

Performance

- All glazing units to doors and windows are to be 'double glazed' with Low-E 'Argon' filled glass double sealed units. (Unless Stated).
- All external wall cavities are to be either or partially filled, including in external gables 250mm above the ceiling joist level.
- A maintenance manual to be supplied to the occupiers to ensure safe and efficient use of heating appliances.

PART M: Access to and use of Buildings

Refer to AD Part C: Site preparation and resistance to contaminants and moisture.

Regulation 5: there is a material change of use where:-

- The building contains a flat, where previously it did not;
- Section 5: states it is not a requirement, under a material change of use (from Commercial to Residential) to ensure that the New residential part of the building complies with Part M, as set out in Schedule , Regulation 5

Building Approach

- Materials - footpaths are to be constructed in a 'suitable Non-Slip material' i.e. paving slabs, concrete, tarmac or block pavers.

Accessible Switches and Sockets

- All light switches, sockets outlets, door bells, telephone points, TV aerial socket, should be located in a zone between 450mm-1200mm measured off finish floor level in accordance with PART M of the Building Regulations.
- Exceptions to the above would be consumer units, room thermostats and radiator valves.

Rev	Date	Details
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Project Title:
The Dupont Building,
Building 130,
22-42 Freshwater Road,
Chadwell Heath,
Essex, RM8 1RU

Drawing Title:
North Elevation

Drawing no:
2927.WD.20

Revision:

Scale:
1:100@A1
1:200@A3

Printed:
18th July
2013

Drawn:
GR/RT

Checked
BG

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e: admin@mgl-architects.com
w: www.mgl-architects.com

WORKING DRAWINGS

Notes:

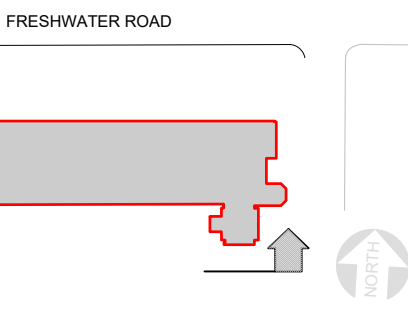
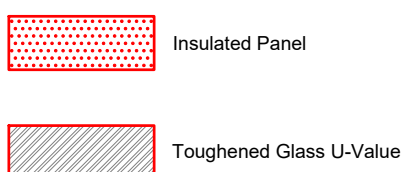
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LEGEND



Key Plan - NTS

South Elevation 1:200 @ A1

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- In accordance with the 'Accredited Construction Details' for dwellings.
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- Drylined external walls are to have a solid ribbon of plaster at points of contact with the floor, the ceiling and adjacent walls. In addition a solid ribbon of plaster shall be provided to the four sides of any opening within the external wall.

Lighting - (subject to BREEM, Eco Homes / Code for sustainable homes)

- Internal lighting - all new unit(s) are to be fitted with a minimum number of Low Energy light fittings. These fittings are to be a complete fitting that will only accept compact fluorescent lamps to a maximum 20W output. In these Unit(s) up to (100% recommended, or 70% minimum) of the light fittings will be 'low energy' as described above. Only the bedrooms will have standard (non low energy) recessed halogen light fittings.
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- Exceptions to the above would be consumer units, room thermostats and radiator valves.

Residential New Building
Thermal Standards
@ L1AResidential Conversion
Thermal Standards
@ L1BCommercial
Thermal Standards
@ L2B

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APPENDIX C

Outline Specification Wall Build Up

Outline Specification wall build up

Spectrum Building, 22-42 Freshwater Road, Dagenham, RM8 1EH

Project Reference	23004
Document Number	23004-GAA-A1-XX-SP-A-0001
Suitability	S0 - Approved
Revision Number	P04.01
Date	26/06/2023
Written By	
Checked By	
Reviewed By	
Approved By	

Contents

Introduction	01
Outline wall buildup	02
Data sheets for products	07

Revision Record

Revision	Description	Date Issued	Originator
P01	First Issue	26/04/2023	BvH
P02	Valcan & Vitrafix data sheets added	05/05/2023	BvH
P03	Phoenix Balcony decking added to scope and contents, general updating	25/05/2023	BvH
P04	SIDERISE fire barrier products replace Tenmat fire barrier products; Valcan system updates, Vitradual cladding replaces Ceramapanel; general re-formatting of document	26/06/2023	BvH

A. Existing site

The site comprises an existing 6-storey mixed-use building with commercial use on the Ground Floor, and residential units from first to sixth floors. The fifth and sixth floors are a later addition, and comprise a structural timber frame with an external rainscreen cladding system. The windows building wide have spandrel panels in varying configurations. Each balcony is separated by privacy screens and decked by proprietary external decking.

B. Proposed works

Surveys have been undertaken on the existing cladding, window spandrel panels, balcony decking and balcony privacy screens. The cladding build up on the 5th and 6th floors has been found to contain items that do not meet the requirements of the Building Safety Fund (BSF). The balcony privacy screens and balcony decking have likewise been found to contain items that do not meet the requirements of the Building Safety Fund (BSF).

In light of this, an application is being made to the BSF whereby remedial works are to be carried out to replace any items that are not in accordance with the BSF requirements.

C. Scope and limitation of this document

This document is limited to providing an outline build up that will be compliant with BB7 report and detail drawing commentary BB-DRC-15751BC (2023.06.09).

The works are confined to these areas only:

1. External Rainscreen Cladding to the 5th and 6th floors.
2. All window spandrel panels building-wide.
3. All balcony privacy screens building-wide.
4. All balcony decking building-wide.

Following an intrusive survey by FAA, undertaken on a portion of the existing external cladding on the sixth floor (Apartment 602) (2023.03.08) and various locations, a building-wide Survey Location by BB7 (2023.06.02), it was agreed to replace the cladding build-up on the 5th and 6th floors from existing insulation outwards to cladding panels, the window spandrel panels, the balcony privacy screens (excluding existing framework) and the balcony decking.

This report now provides the relevant products to be used in the cladding build up based on the findings of the BB7 report as per the reference above.

The document is not providing any external wall fire reviews or fire strategy and is only limited to providing an outline specification for pricing purposes by FAA Ltd.

This document is not to be used for any workmanship or installation guidance. All items should be installed in accordance with the manufacturer's guidance and in accordance with any statutory requirements.

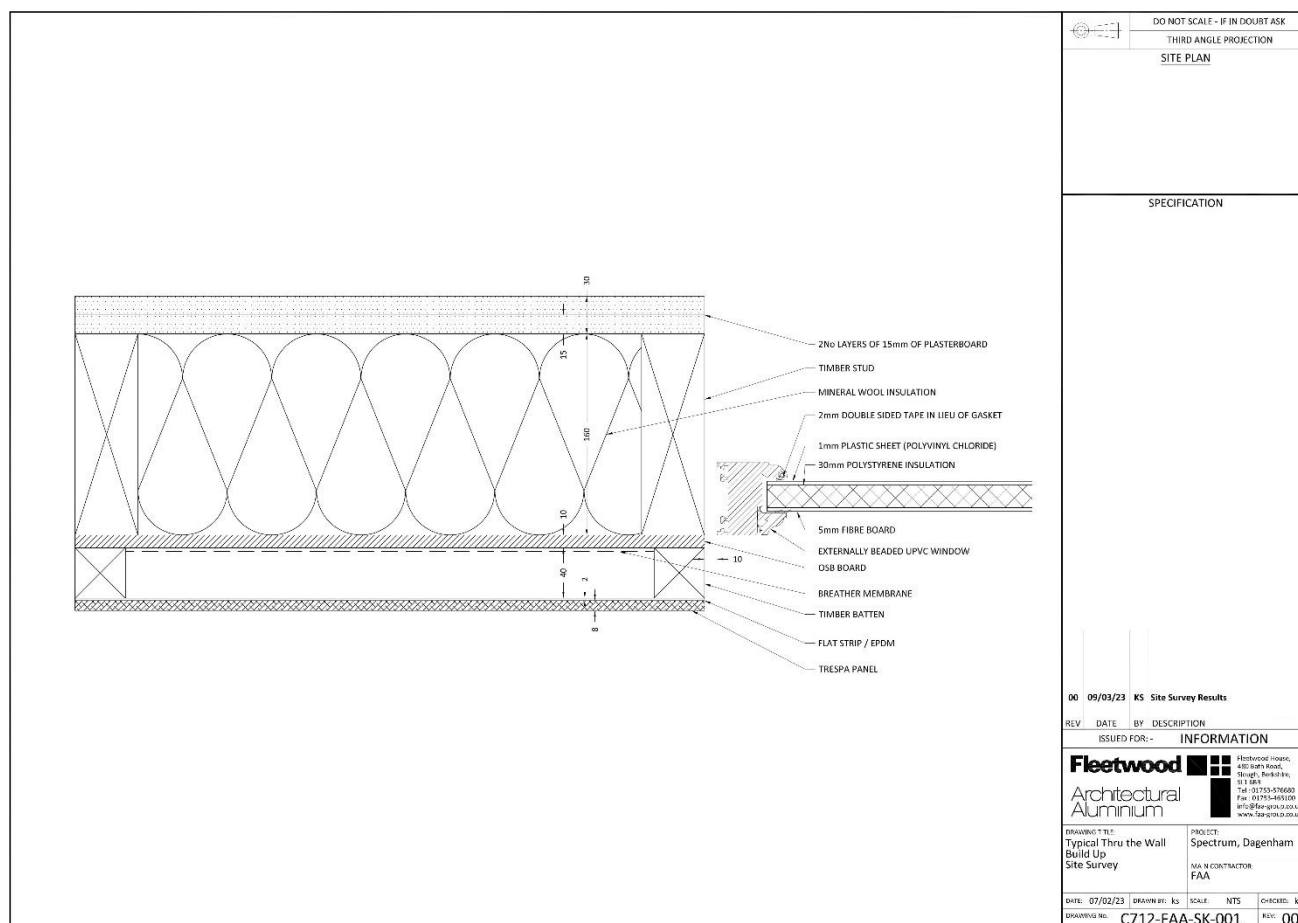
Any thicknesses of any items are not to be used for any construction purposes as they may be subject to change due to further design development at the Stage 4 Technical Design Stage.

No ancillary items have been reviewed as part of this document.

Outline wall build up

1. Current build-up of the wall, window spandrel panel, balcony privacy screens & balcony decking

GAA Design have used as the basis for the proposed build-up of the cladding the findings of the intrusive survey by FAA, undertaken on a portion of the existing external cladding on the sixth floor (Apartment 602, 2023.03.08). Various other cut-outs indicated that this was typical of the 5th to 6th floor rainscreen condition. The findings of the survey were recorded in a detail section:



External wall: (from external cladding face to the face of the existing insulation) “Trespa” combustible cladding system on timber framing.

Window Spandrel Panels: Composite Fibre board, polystyrene and PVC panels.

Inspections of the balconies showed that the privacy screens and balcony decking were considered combustible.

External balcony Privacy Screens: High pressure laminate screens set into metal frames.

Balcony Decking: Combustible composite decking.

Outline wall build up

2. Proposed build up of the wall, spandrel panels, privacy screens & balcony decking

Following the review of the existing build up for the cladding, the following outline build up is proposed at this stage. This should be read in conjunction with MGL Architects' drawing set numbered 2927- 0 to 71 incl. This set comprises the details and general arrangement of the 5th and 6th floor extensions as provided by the client.

2.1. External Cladding

VALCAN A1 fire rated non-combustible drained and back-ventilated rainscreen cladding system for external cladding using VALCAN 3mm "Vitradual" non-combustible rivet -fixed aluminium cladding with factory applied Kynar 500 PVDF coating system and Vitrafix helping hand system, for panel and subframe combined warranty.

2.2. Ventilated void

Retain the existing ventilated void (minimum 25mm) between the cladding and the insulation.

2.3. External Insulation

Replace the existing PIR insulation external to the sheathing board with sufficient Rockwool rainscreen Duo Slab Insulation (minimum 90mm) to meet the thermal performance as defined by Dynamic Energy Assessors. This insulation has been deemed to be compliant by BB7 (the fire engineers) and the Bureau Veritas (the approved building control authority). The fixings for the insulation shall be a mix of metal and plastic fixings with at least one metal fixing per square meter of insulation installed in accordance with BR 135. The fasteners should be no less than 50mm and not more than 150mm from the corners or edges.

2.4. Breather Membrane

Replace existing breather membrane with Effisus Breather FR system breather membrane as this has a Euroclass A2-s1,d0 accreditation. This has been deemed to be compliant by BB7 (the fire engineers) and the Bureau Veritas (the approved building control authority)

2.5. Sheathing Board

Replace existing sheathing board with Valcan ProcellaPro 12mm calcium silicate cement building board. This has been deemed compliant by BB7 (the fire engineers) and the Bureau Veritas (the approved building control authority) and forms part of the combined warranty of the VALCAN system.

2.6. Internal vapour barrier and plasterboard

This element is not part of this outline specification and is assumed to remain in place.

2.7. Cavity barriers

All relevant cavity barriers to be installed as per the requirements of the manufacturers. Horizontal firebreaks, vertical firebreaks and intumescent strips are from the SIDERISE system, and as detailed in the GAA Design drawing (23004-28 and 29 series) and in line with any relevant subcontractor design. It should be noted that fire certification exists for the combination of SIDERISE and VALCAN "Vitradual" as a rainscreen system and is included with the data sheets in this document.

2.8. Timber structural framing and fixings

The structural framing is engineered timber, and details of this retrofitted structure are found in the manufacturer's drawing package.

Outline wall build up

The final installation shall account for all the relevant structural requirements as directed by the structural engineers and the fire engineers, who have inspected and assessed the structure for suitability and integrity. It should be noted that fixings will need to be applied into fresh material so that a fresh thread is cut in the material. If the fixings are being applied into an existing hole, then this would need to be supported by a pullout test to confirm what performance is achieved.

2.9. Other design considerations

The air tightness that should be achieved should be no worse than that of the existing cladding. All relevant air tightness criteria for the building are available via the EPC register and should be in line with the requirements of Dynamic Energy Assessors.

The design must adopt and implement the Wind Report (reference 12405-WL-01-01 to 04).

The design life of any new elements is to be as per the table below. This only applied to any new items installed and not to any retained elements.

Material	Warranty/Guarantee (Years)	Predicted life (years)
Aluminium carrier rails, bracketry, profiles, extrusions, sheets, etc.	12	50
Stainless steel fixings, galvanised steel sheets, etc.	12	50
Gaskets	12	25
Cavity Barriers	12	60
Mineral wool insulation	12	50
Weather/vapour barriers	12	50

2.10. Spandrel panels

These are 35mm thick “Metalline” Architectural Fabrications ULTIMA ULT 1 A1 spandrel panels, with 3mm External aluminium facing (J57S UP), 30mm thick Rockwool FABROCK non-combustible core insulation and 2mm internal aluminium facing (J57S).

The panel will typically be inserted into the existing PVC window frames, and fixed with external pvc beads and sealants. The design must adopt and implement the Wind Report (reference 12405-WL-01-01 to 04).

2.11. External balcony privacy screens

These will be VALCAN 12mm A1 fire rated “Ceramapanel” non-combustible panels factory pre-drilled and cut to suit existing clamp brackets.

2.12. External balcony decking

PHOENIX “Exadeck” anti-slip A1 fire-rated extruded porcelain decking supplied complete with fixings, clamps and edgings, and cut to suit the dimensions of the balconies. The existing support timbers are to be replaced with steel members.

The weight of 8.33kg per unit of 1200 x 145 x 26 thick is to be confirmed by the structural engineer prior to installation.

3. U-Value Calculation

Dynamic Energy Assessors have concluded that an overall U Value of $0.28 \text{ W/m}^2\text{K}$ will achieve the relevant compliance to the Building Regulations (2022).

Hence, a calculation to ascertain the relevant thickness of the new insulation to be installed as well as provide a condensation risk analysis has now been done to confirm the build up of the cladding. The assessment accounted for the thermal bridging through the relevant SFS framing and the cladding helping hand system and rails.

The relevant U Value calculation is in section 4.1. The build up is detailed below:

- a. 3mm aluminium cladding panel with helping hand system and top hat rails;
- b. Minimum of a 25mm ventilated void;
- c. 90mm Rockwool Rainscreen Duo Slab Insulation;
- d. Effisus breather membrane;
- e. 12mm calcium silicate cement building board;
- f. Retention of the existing mineral wool insulation.

This build up achieves a U value of $0.27 \text{ W/m}^2\text{K}$ which is in accordance with the requirements of the energy consultants calculations.

The spandrel panels are built up as follows:

3mm External aluminium facing (J57S UP);
30mm thick Rockwool FABROCK non-combustible core insulation;
2mm internal aluminium facing (J57S).

This achieves a U value of $0.18 \text{ W/m}^2\text{K}$ based on a zero glass window design.

Outline wall build up

4. Conclusion

In conclusion, the build up proposed in this document has been reviewed by BB7, the fire engineers, who have found the build up to comply to the European Classification A2-s1, d0 or Class A1, classified in accordance with BS EN 13501-1:2007+A1:2009 as per their report issued under reference TBC.

GAA Design have provided drawings for the locations of the fire barriers (as per the 23004-21 and 28 series drawings) which have been reviewed by BB7. The classifications of the barriers have also been reviewed by BB7 and commented on by the Building Control officer.



The suitability of the existing timber frame structure has been assessed by the structural and fire engineers.

It should be noted that the build-up is proposed based on current information at the time of writing this report. This build-up may be subject to change once construction works commence and relevant inspections by BB7 commence in relation to the EWS1 form, as well as any discussions with leaseholders. Any further changes will need to be signed off by all parties prior to any construction proceeding.

This project will be monitored by the GOLDEN THREAD digital and asset management system.

5.1 U- Value Calculations

An overall U-value of 0.19 W/m² K has been calculated on the build-up as specified.

U-VALUE CALCULATOR REPORT					
Property Reference	Spectrum House 22-42 Freshwater			Issued on Date	27/06/2023
Assessment Reference		Prop Type Ref	Recladding project		
Project					
Calculation Type	Existing Dwelling				
SAP Rating		DER		TER	
Environmental		% DER<TER			
CO ₂ Emissions (t/year)		DFEE		TFEE	
General Requirements Compliance		% DFEE<TFEE			
Assessor Details	<div>  Dynamic Energy Assessors, Tel: 0800 090 1605, dynamicenergyassessors.co.uk </div>			Assessor ID	B381-0001
Client	FAA Group, FAA Group				
Building Elements					
Wall WT3 - Aluminium clad - Upgraded existing					
Wall Type: Timber framed Wall with I-beams					

Data Sheets

U-VALUE CALCULATOR REPORT



Layer	Description	Thickness (mm)	Conductivity (W/m²K)	Resistance (m²K/W)	Fraction (%)
Ext surface				0.1300	
Layer 1	Profiled 3mm Aluminium cladding				
	Main construction	3	160.0000	0.0000	100.00
Layer 2	Bracket external flange				
	Main construction	2	0.0000	0.0000	77.78
	Main construction	2	0.0200	0.0000	22.22
	Corrections - Cavity Ventilated, Emissivity: Normal				
Layer 3	Cavity, external to Rockwool DD				
	Main construction	23	0.1683	0.1367	99.48
	Main construction	23	202.0000	0.0001	0.52
	Corrections - Cavity Unventilated, Emissivity: Normal				
Layer 4	Rockwool Hardrock multi-fix DD				
	Main construction	84	0.0371	2.2564	99.48
	Main construction	84	202.0000	0.0004	0.52
	Corrections - Air Gap: Level 1, Fasteners: None or plastic				
Layer 5	Rockwool Hardrock multi-fix DD (Valcan flange)				
	Main construction	2	0.0390	0.0513	69.64
	Main construction	2	202.0000	0.0000	30.36
	Corrections - Air Gap: Level 1, Fasteners: None or plastic				
Layer 6	EPDM insulation pad				
	Main construction	4	0.0300	0.1333	100.00
	Corrections - Air Gap: Level 1, Fasteners: None or plastic				
Layer 7	Effisus breather membrane				
	Main construction	0.25	0.0000	0.0000	100.00
Layer 8	Calcium Silicate Cement board				
	Main construction	12	0.2500	0.0480	100.00
Layer 9	Mineral wool batt				
	Main construction	140	0.0380	3.6842	90.91
	Main construction	140	0.1300	1.0769	9.09
	Corrections - Air Gap: Level 1, Fasteners: None or plastic				
Layer 10	Sheathing board				
	Main construction	18	0.1300	0.1385	100.00
Layer 11	airspace/timber battens				
	Main construction	22	0.1221	0.1800	88.06
	Main construction	22	0.1243	0.1770	11.94
	Corrections - Cavity Unventilated, Emissivity: Normal				
Layer 12	Plasterboard, high density				
	Main construction	15	0.2500	0.0600	100.00
Layer 13	Plasterboard, high density				
	Main construction	15	0.2500	0.0600	100.00
Int surface				0.1300	
Total resistance: Upper limit = 5.614 m² K/W Lower limit = 3.994 m² K/W Average = 5.304 m² K/W					
Total correction = 0.0032 m² K/W U-value (unrounded) = 0.19 W/m² K					
Unheated space: None					
Total thickness: 340 mm U-value: 0.19 W/m² K Kappa: n/a					



5.2 VALCAN Vitradual cladding & Vitrafix fixing system


vitradual
NON-COMBUSTIBLE CASSETTE CLADDING / MANUFACTURED BY FARBER

MATERIAL PROPERTIES

TYPICAL COMPOSITION

1. Protective film
2. PVDF-Kynar 500 coating system
3. 2mm or 3mm Aluminium

The material is rigid, resistant to blows, breakage and pressure, and has high bending, buckling and breaking strengths.



ALUMINIUM

Vitradual is manufactured from 3000 series aluminium for machinability and exterior performance, other aluminium grades available as required for projects.

DIMENSIONS

WIDTH	LENGTH	THICKNESS
1250 / 1500	2500	2mm/3mm
	3200	
	4000	
CUSTOM SIZES ARE AVAILABLE. PLEASE SPEAK TO THE VALCAN TEAM		

Data Sheets

vitradual™

NON-COMBUSTIBLE CASSETTE CLADDING / MANUFACTURED BY EMANER

WEIGHT

THICKNESS	WEIGHT (KG/M ²)
3mm	7.9
2mm	5.4

TECHNICAL DATA

PHYSICAL PROPERTY	VALUE
Density	2.63 g/cm ³
Melting Range	605-650 °C
Thermal Expansion	23.8 x10 ⁻⁶ /K
Modulus of Elasticity	70 GPa
Thermal Conductivity	138 W/m.K
Electrical Resistivity	0.0495 x10 ⁻⁸ Ω .m
Tensile Strength	210 - 260 MPa
Proof Stress	130 Min MPa
Hardness Brinell	61 HB
Acoustic Insulation	Rw 27

TECHNICAL DATA OF KYNAR 500 PVDF COATING

CLASSIFICATION	TEST STANDARD	RESULT	REMARKS
Substrate	ASTM D1905	Pass	Aluminum
Flexibility	ASTM D4145 ECCA T7 NCCA 11-19	Pass	1-ZT - No Cracking
DFT	ASTM D1400 ASTM D1005 NCCA 11-13, 14, 15	Pass	
Colour Difference	ASTM Z244	$\Delta E < 5$	4000hrs
Gloss Meter	ASTM D523	Pass	
Gloss Retention	ASTM Z244	85%	4000hrs
Chalking Resistance	ASTM Z244	<8 units	4000hrs
Pencil Hardness	ASTM D3363		
Dry Film Adhesion		Pass	
Wet Adhesion		Pass	38°C, 24hrs
Hot Adhesion		Pass	100°C, 24hrs
Reverse Impact Resistance	ASTM D2794	No Cracking	12.7mm x 0.5kg x 500mm
Bending/Gardner Impact	ASTM D3281	Pass	Normal
Solvent Resistance	ASTM 2794	Pass	MEX double rubs
Acid Resistance	ASTM 1308	Pass	7 days soaking in 10% H ₂ SO ₄
Alkali Resistance	ASTM 1308	Pass	7 days soaking in 10% NaOH
Detergent Resistance	ASTM D2248	Pass	72 hrs soaking in 3% detergent
SALT RESISTANCE	ASTM B117	Includes the following:	
Gloss Retention	ASTM D523	0.8% change	5000hrs
Colour Retention	ASTM Z244	$\Delta E < 0.68$	5000hrs
Chalk Resistance	ASTM 4214	Rating: 10	Top rating - no chalk (5000hrs)
HUMIDITY RESISTANCE	ASTM B714	PASS	2000hrs
	ASTM B117	Includes the following:	
Gloss Retention	ASTM D523	No visible change	5000hrs
Colour Retention	ASTM Z244	$\Delta E < 0.52$	5000hrs
Chalk Resistance	ASTM 4214	Rating: 10	Top rating - no chalk (5000hrs)
WEATHERING RESISTANCE	ASTM G63	Includes the following:	
Gloss Retention	ASTM D523	6.2% Change	5000hrs
Colour Retention	ASTM Z244	$\Delta E < 0.27$	5000hrs
Chalk Resistance	ASTM 4214	Rating: 10	Top rating - no chalk (5000hrs)
CHEMICAL RESISTANCE	ASTM C207	Pass	Mortar, 24hrs
	ASTM D1308	Pass	10% Hcl, 15 min
		Pass	70% HN03 Vapours, 30 min
		Includes the following:	
Gloss Retention	ASTM D523	6.2% Change	16hrs
Colour Retention	ASTM Z244	No Change	16hrs
Chalk Resistance	ASTM 4214	Rating: 10	Top rating - no chalk (5000hrs)



Vitrafix systems

Aluminium carrier system brackets, profiles and fixings which have been tested to BS 8414-1 and BS 8414-2 and are Centre for Window and Cladding Technology (CWCT) tested. Designed to offer a cost effective yet strong carrier system, and is suitable for all building types.

Vitrafix VF2

VF2 system comprises of aluminium or steel top-hats and C-channel rails to allow brackets to be installed in isolation of stud location or increase system depth. The VF2 top-hats can also be used in the own right to replace timber batten style sub grids.

Features and benefits:

- Lightweight.
- Durable.
- Tested to BS 8414.
- Tested to Centre for Window and Cladding Technology (CWCT).
- System warranty available - contact manufacturer's technical team for information.

Application:

For panel systems using VFI fixings

Contacts:

- www.valcan.co.uk
- enquiries@valcan.co.uk

SYSTEM SPECIFICATION

- **Carrier system**
 - **Product reference:** Vitrafix VF2
 - o Material: Aluminium
 - o Manufacturer:
 - Valcan
 - www.valcan.co.uk
 - enquiries@valcan.co.uk
 - [REDACTED]
 - **Rails:**
 - [VF2TH1002A] - Vitrafix VF2, 100x50x2mm Top Hat D, 3m
 - [VF2TH502A] - Vitrafix VF2, 50x50x2mm Top Hat S, 3m
- **Fixings:**
 - VFSD.538/A4 - VitraFix Self-Drill, A4 Grade 5.5x38mm, 8mm Hex Head w/washer
 - Masonry anchors by Certifix Ltd - ETA approved fire rated fixing

Certificate of Testing

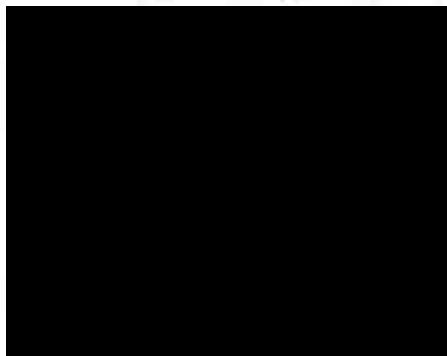


Certificate Number: 2020/96D
Date: March 2021
System: Vitradual rainscreen
System supplier: Valcan
Dunball House
Unit N
Woodlands Court Business park
Bristol Road
Bridgewater
Somerset
TA6 4FJ

Tests performed:

Watertightness – dynamic	✓
Wind resistance – serviceability	✓
Wind resistance – safety	✓
Soft body impact	✓
Hard body impact	✓
Hose test	✓

In accordance with 'Standard for Systemised building envelopes CWCT, 2006



Test Witness

Director

CWCT Services Ltd, The Studio, Entry Hill, Bath, BA2 5LY
Tel: 01225 330945 email: cwct@bath.ac.uk www.cwct.co.uk

Company registered in England at Baker Tilly, 25 Farringdon Street, London, EC4A 4AB
Number 2536548 - VAT number 800 9915 62

Data Sheets

Fairview Europe Ltd

Unit 7, Robins Drive
Castlefield Industrial Estate
Bridgewater
Somerset TA6 4DL

e-mail: sales@valcan.co.uk

website: www.valcan.co.uk



Agrément Certificate

20/5824

Product Sheet 1

FAIRVIEW CLADDING PANELS

VITRADUAL

This Agrément Certificate Product Sheet⁽¹⁾ relates to VitraDual cladding panels, flat aluminium cladding systems, for use in an open-jointed, back ventilated and drained rainscreen cladding system on the external timber- and steel-frame walls of new and existing commercial and residential buildings.

[1] Hereinafter referred to as 'Certificate'.

CERTIFICATION INCLUDES:

- factors relating to compliance with Building Regulations where applicable
- factors relating to additional non-regulatory information where applicable
- independently verified technical specification
- assessment criteria and technical investigations
- design considerations
- installation guidance
- regular surveillance of production
- formal three-yearly review.



KEY FACTORS ASSESSED

Strength and stability — the panels, when incorporated in a suitably designed cladding system, can safely resist the wind and impact actions normally encountered in the UK (see section 6).

Behaviour in relation to fire — the panel has an A1 reaction to fire classification to BS EN 13501-1 : 2018 (see section 7).

Air and water penetration — the vertical and horizontal joints between the panels will minimise water entering the cavity. Any water collecting in the cavity will be removed by drainage and ventilation (see section 8).

Durability — under normal conditions, the product will perform effectively as an external cladding with a service life of at least 30 years (see section 10).

The BBA has awarded this Certificate to the company named above for the product described herein. This product has been assessed by the BBA as being fit for its intended use provided it is installed, used and maintained as set out in this Certificate.

On behalf of the British Board of Agrément

Date of First issue: 13 November 2020

Chief Executive Officer



The BBA is a UKAS accredited certification body - Number 113.

The schedule of the current scope of accreditation for product certification is available in pdf format via the UKAS link on the BBA website at www.bbacerts.co.uk. Readers MUST check the validity and latest issue number of this Agrément Certificate by either referring to the BBA website or contacting the BBA directly.

Any photographs are for illustrative purposes only, do not constitute advice and should not be relied upon.

British Board of Agrément

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Efectis UK/Ireland

EFFECTIS UK/Ireland Limited
Shore Road - Newtownabbey
Co. Antrim - BT 37 0QB
United Kingdom

CLASSIFICATION REPORT

REACTION TO FIRE - CLASSIFICATION REPORT EUI-21-000379

1. INTRODUCTION

This classification report defines the classification assigned to VitraDual with the procedures given in BS EN 13501-1:2018.

REACTION TO FIRE CLASSIFICATION IN ACCORDANCE WITH BS EN 13501-1:2018

Sponsor : Fairview Europe Ltd. t/a Valcan
Dunball House
Unit N
Woodlands Court Business Park
Bristol Road
Bridgwater
TA5 4FJ
United Kingdom

Prepared by: Efectis UK/Ireland

Product name: VitraDual

Classification report No.: EUI-21-000379

Issue number: 1

Date of issue: 14th of December, 2021

Reproduction of this document is only authorized in full unabridged version.



EUI-21-000379

CLASSIFICATION REPORT

2. DOCUMENT TRACKING

Revision Index	Modification
0	Original document

3. DESCRIPTION OF THE PRODUCT

3.1. GENERAL

The product, VitraDual is defined as a Coated aluminum panel.

3.2. PRODUCT DESCRIPTION

The product, VitraDual, is described below or is described in the reports provided in support of classification listed in 4.1.

Product description		
Trade mark	VitraDual	
Composition	Topcoat	Topcoat PVDF paint Reference: PVDF Paint Supplier: Information provided but withheld on the report for commercially sensitive reasons Thickness: 40 microns Mass per unit area: 0.059 kg/m ² Colour: Wide range of colour Relative to the final product: 0.71% Black and white colour have been tested to ISO 1716 : 2018 as observed in Documents No. 420457 and No. 420458
	Primer	Polyester front primer coating Supplier: Information provided but withheld on the report for commercially sensitive reasons Thickness: 5 microns Mass per unit area: 0.007 kg/m ² Colour: White Relative to the final product: 0.008%
	Metal sheet	Aluminium coil sheet Supplier: Information provided but withheld on the report for commercially sensitive reasons Thickness: 3 mm Mass per unit area: 8.13 kg/m ² for 3 mm thick Relative to the final product: 97.832% Not tested According to the conventional classification of the Commission Decision 96/603/EC, as amended 2000/605/EC.
	Rear primer	Epoxy primer back coating Reference: Epoxy Primer Supplier: Information provided but withheld on the report for commercially sensitive reasons Thickness: 8 microns Mass per unit area: 0.12 kg/m ² Colour: Grey Relative to the final product: 1.45% It has been tested to ISO 1716 : 2018 as observed in Document No. 420456
Thickness	3 mm	
Mass per unit area	8.13 kg/m ² for 3 mm thick	
Density	2710 kg/m ³	



EUI-21-000379

CLASSIFICATION REPORT

4. REPORTS AND RESULTS IN SUPPORT OF THIS CLASSIFICATION

4.1. REPORTS

Name of Laboratory	Name of sponsor	Report ref. no	Test method and date field of application rules and date
EFFECTIS UK/Ireland	Fairview Europe Ltd. t/a Valcan	EUI-21-SBI-000379	BS EN 13823 : 2020
EFFECTIS UK/Ireland	Fairview Europe Ltd. t/a Valcan	EUI-21-HC-000379	BS EN ISO 1716 : 2018
WARRINGTON	Fairview Europe Ltd. t/a Valcan	WF 420456 WF 420457 WF 420458	BS EN ISO 1716 : 2018

4.2. RESULTS

Test method and test number	Parameter	No. Tests <small>n)</small>	Results			
			Continuous parameter - mean (m)		Compliance with parameters	
BS EN 13823 : 2020 EUI-21-SBI-000379	FIGRA 0.2 MJ (W/s)	3	0.00		—	
	FIGRA 0.4 MJ (W/s)		0.00		—	
	THR 600 s (MJ)		0.08		—	
	LFS		—		Compliant	
	SMOGRA TSP <small>5min</small> (m ²)		0.00 11.95		— —	
	Flaming droplets or particles		—		Compliant	
BS EN ISO 1716 : 2018	GSV (MJ/kg)	3	Topcoat PVDF Paint Red color	18.60 (MJ/kg)	1.10 (MJ/m ²)	—
EUI-21-HC-000379		3	Polyester front primer coating	17.48 (MJ/kg)	0.12 (MJ/m ²)	—
WF 420456 WF 420457		3	Epoxy Primer	29.12 (MJ/kg)	0.35 (MJ/m ²)	—



EUI-21-000379

CLASSIFICATION REPORT

WF 420458		3	Topcoat PVDF Paint White color	12.47 (MJ/kg)	0.73 (MJ/m ²)	-
		3	Topcoat PVDF Paint Black color	20.08 (MJ/kg)	1.18 (MJ/m ²)	-
		-	Aluminium sheet (Not tested)	0*	0*	-
		15	Specimen Overall	0.42 (MJ/kg)	3.48 (MJ/m ²)	-
EN ISO 1182 :2020	-	-	Aluminium sheet (Not tested)			A1*

*According to the conventional classification of the Commission Decision 96/603/EC, as amended 2000/605/EC.

a) Not for extended application

(-) means not applicable

5. CLASSIFICATION AND FIELD OF APPLICATION

5.1. REFERENCE OF CLASSIFICATION

This classification has been carried out in accordance with BS EN 13501-1:2018.

5.2. CLASSIFICATION

The product, VitraDual, in relation to its reaction to fire behaviour is classified:

A1

The format of the reaction to fire classification for construction products excluding floorings and linear pipe thermal insulation products is:

Fire behaviour	
A	1

I.e.A1

Reaction to fire classification	A1
--	-----------

5.3. FIELD OF APPLICATION

This classification is valid for the following product parameters and end-use applications:

Thickness of Aluminium sheet	Valid for thickness of 3 mm and above
Application rate of Topcoat	Valid for Maximum Mass per unit area of 0.059 kg/m ²
Application rate of Primer	Valid for Maximum Mass per unit area of 0.007 kg/m ²
Application rate of Rear Coat	Valid for Maximum Mass per unit area of 0.12 kg/m ²
Density	Valid for the density of 2710 kg/m ³
Type of product/ facings	Valid for tested type of product only (same formulation)
Asymmetry	Valid for fire on Topcoat PVDF Paint



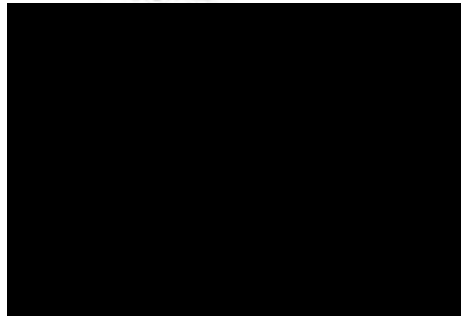
EUI-21-000379

CLASSIFICATION REPORT

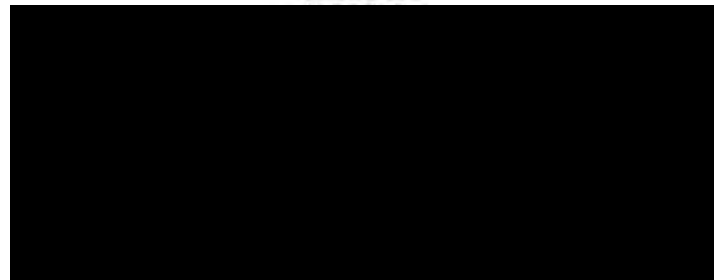
Colour	Valid for all colours
Substrate	Valid for any end use wood based substrates and $337.5 \pm 37.5 \text{ kg/m}^3$ density and also any end use substrate of classes A1 and A2-s1,d0 class
Air gaps / cavities	Valid for at least 50 mm air gaps / cavities between the panel and the substrate
Size and positioning of the test specimen	Valid for all product sizes.

6. LIMITATIONS

This classification document does not represent type approval or certification of the product.



Project Leader



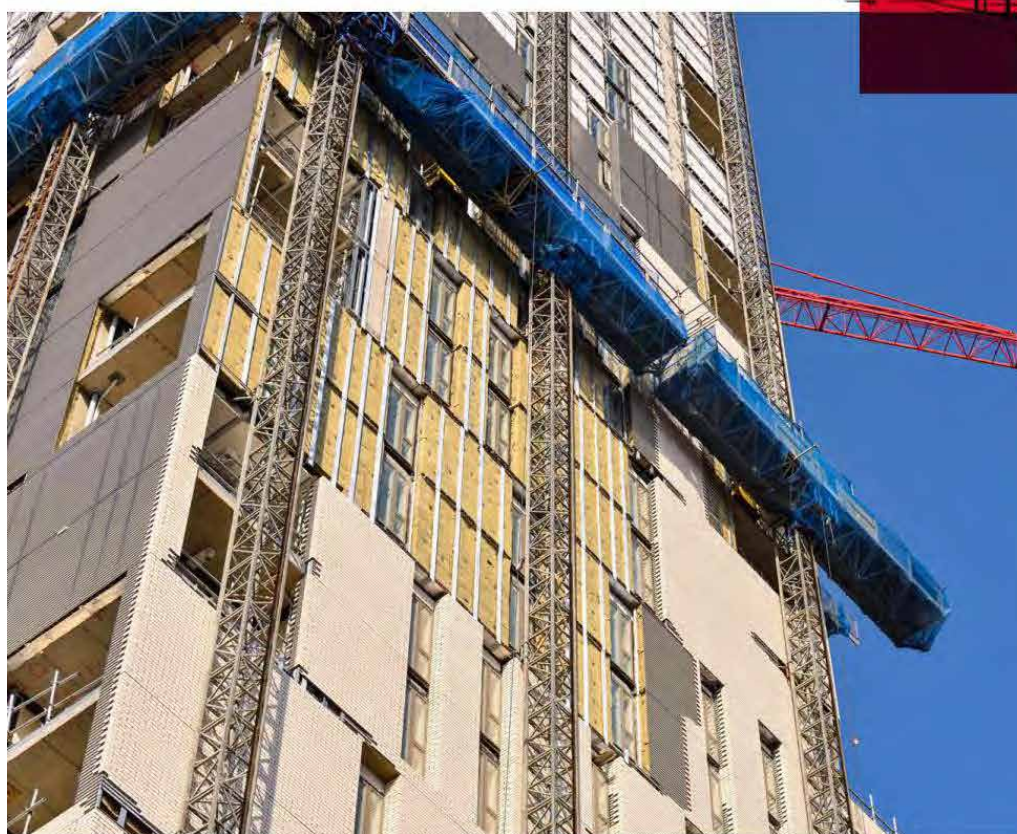
Technical Manager

Data Sheets

5.3. Rockwool Duo Slab Insulation

RAINSCREEN DUO SLAB®

Non-combustible insulation for ventilated façades





RAINSCREEN DUO SLAB®

Effective non-combustible thermal and acoustic insulation for ventilated façades

RAINSCREEN DUO SLAB is a dual-density insulation specifically developed for use within ventilated cladding systems, as well as sealed systems such as curtain walling. Once installed, the robust outer surface of the slabs, in combination with a factory-applied water repelling agent, acts to resist rain ingress during construction.

RAINSCREEN DUO SLAB



Advantages

- Designed for use on high rise buildings
- Water-repellent: Fibres impregnated with a water-repelling agent during manufacture
- Fewer fixings required for installation compared to standard stone wool slabs
- Robust front face resists damage and over-driving of fixings

Description

RAINSCREEN DUO SLAB is a dual-density insulation, meaning that the outer layer of each slab is manufactured to a higher density than the remainder of the product. This results in a robust outer surface designed to withstand the rigours imposed on site, and a resilient inner face designed to accommodate any irregularities in the substrate.

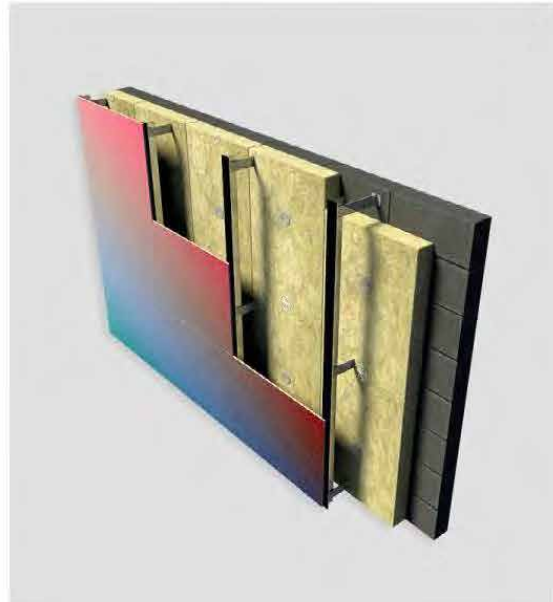
A water-repelling agent is added to the product during manufacture, which in combination with a robust outer surface and random fibre orientation, prevents water transmission through the insulation layer. As such the slab is well-designed for use in conditions of severe climatic exposure.

The product can be easily fitted around brackets and other awkward details, and when tightly butt jointed the fibres of adjacent slabs will knit together to provide a continuous thermal performance – eliminating heat losses that could otherwise be caused by gaps and joints.

Its unique dual-density construction also means that RAINSCREEN DUO SLAB requires fewer fixings, making it a cost-effective solution that is quick to install.

Applications

RAINSCREEN DUO SLAB is designed for use within ventilated cladding systems, as well as sealed systems such as curtain walling.



RAINSCREEN DUO SLAB

Performance

Fire
Rated Euroclass A1 when assessed to EN 13501-1 using test data from reaction-to-fire tests.

Wind resistance
RAINSCREEN DUO SLAB fixed as indicated in Figure 1 has successfully undergone wind resistance testing by the Building Research Establishment.

Wind loading fatigue tests were used to simulate the performance of the slabs when fully exposed and subjected to fluctuating wind loads during the construction stages of buildings. The tests simulated and exceeded the maximum UK basic wind speed of 56 m/s as defined by BS CP3: Chapter 5: Part 2: 1972. Test report reference BRE GI2801.

Water resistance
ROCKWOOL stone wool repels liquid water due to its fibre orientation and the presence of water-repellent additives.

Acoustic performance
The airborne sound reduction of several typical rainscreen build-ups incorporating RAINSCREEN DUO SLAB was tested at the Sound Research Laboratories (SRL), with results of up to Rw 62 dB. For more information, please see the 'Acoustic Performance of Rainscreen Façade Systems' brochure available on our website.

Condensation control
The vapour resistivity of ROCKWOOL mineral wool is 5.9MNs/gm. The slabs therefore reduce the risk of condensation, allowing natural drying-out of the structure. See typical relative humidity / temperature graph below.

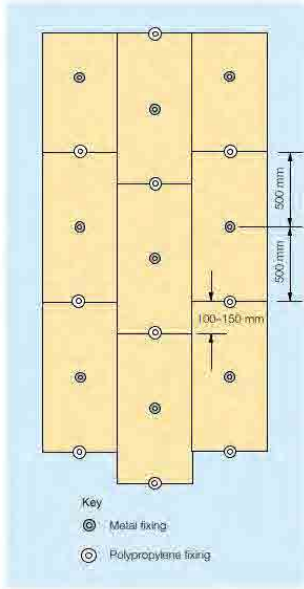
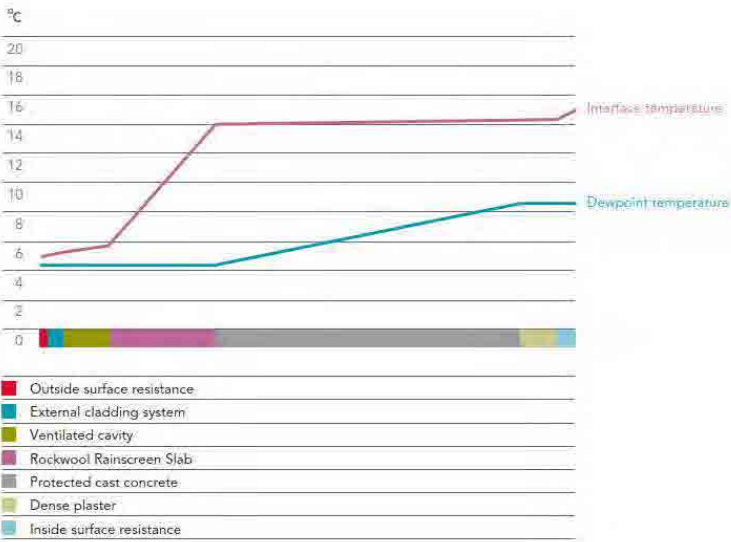


Figure 1
Typical fixing pattern with 3 fixings per square metre

RAINSCREEN DUO SLAB

Technical information

Standards and approvals

RAINSCREEN DUO SLAB has been examined by the British Board of Agreement (BBA) and granted Certificate 17/5402 for use in Ventilated Rainscreen Cladding Systems on both domestic and non-domestic buildings.

RAINSCREEN DUO SLAB satisfies the requirements of BS EN 13162 – “Thermal insulation products for buildings. Factory made mineral wool (MW) products”.

Dimensions

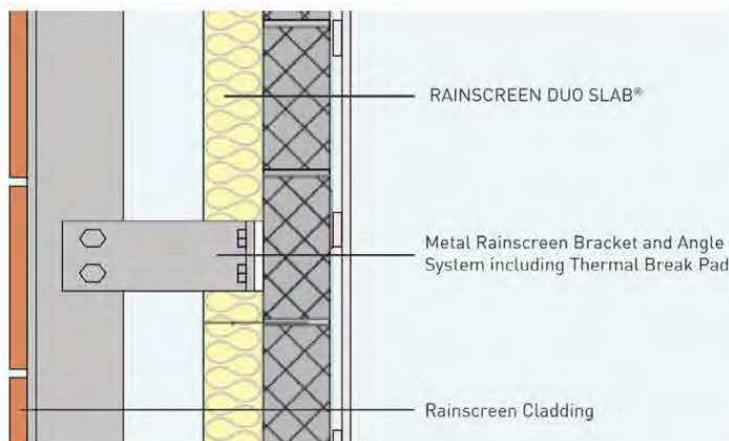
Length (mm)	Width (mm)	Standard thicknesses (mm)
1200	600	50 / 60 / 75 / 100 / 110 / 125 / 150 / 180 / 190 / 200

U-values

Construction 1

RAINSCREEN DUO SLAB® between Metal Bracket System on 150mm Reinforced Concrete or dense block wall. Internal finishes: (a) plaster (b) plasterboard on dabs

Internal finish	a	b
Thickness (mm)	U-Values W/m²K	U-Values W/m²K
125	0.35	0.34
150	0.32	0.31
175	0.28	0.28
200	0.26	0.26
275	0.22	0.22
325	0.20	0.20



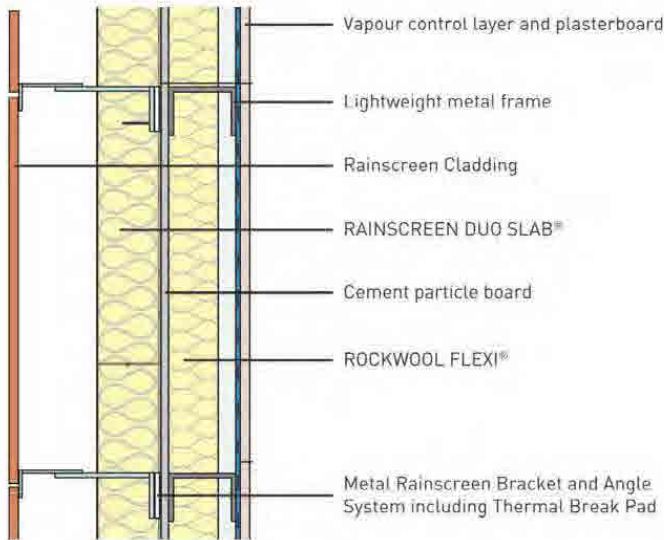
Notes

- Tables based on pointloss scenarios where only the rainscreen brackets bridge the thermal insulation layer.
- A thermal bridging allowance of 0.1W/m²K has been added to the wall U-value (e.g. a calculated U-value of 0.25 will be increased to 0.35W/(m²K) to allow for predicted bridging). (Based on data supplied by the BRE using a 5mm thick thermal break pad and brackets at 600mm x 600mm fixing matrix).

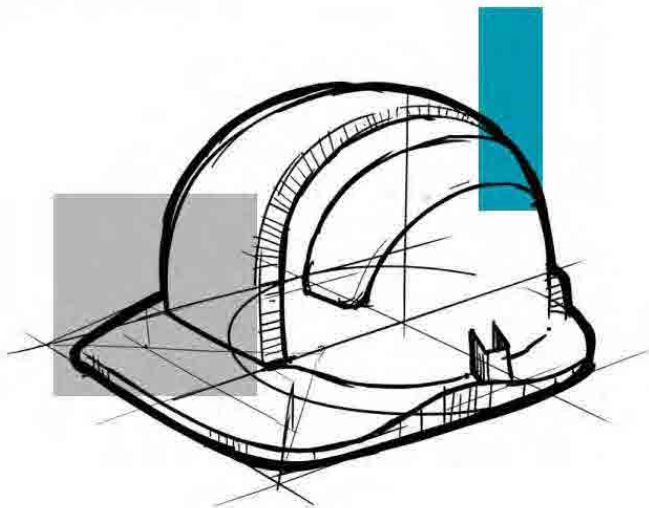
RAINSCREEN DUO SLAB

Construction 2
RAINSCREEN DUO SLAB® on 150mm deep metal studs at 600mm centres with 140mm ROCKWOOL FLEXI installed within the frame.

Thickness (mm)	ROCKWOOL FLEXI® thickness (mm)	U-Values W/m²K
75	140	0.25
100	140	0.22
125	140	0.20
150	140	0.18
180	140	0.17



- Notes**
- U-values shown have been calculated with a thermal bridging allowance which has been determined using a 3-Dimensional analysis in accordance with BR443. The systems modelled included 8mm ROCKPANEL Rockclad and FastFrame rainscreen Brackets

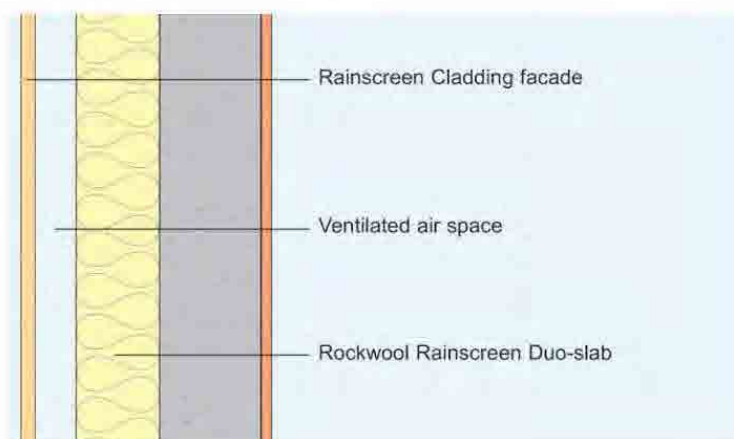


RAINSCREEN DUO SLAB

Construction 3

RAINSCREEN DUO SLAB® between timber rails on 150mm Dense Concrete or dense block wall. Internal finishes: (a) plaster-Lambda 0.180W/mk (b) Plasterboard on dabs.

Internal finish	a	b
Thickness (mm)	U-Values W/m²K	U-Values W/m²K
100	0.35	0.34
125	0.29	0.28
140	0.26	0.26
150	0.25	0.24
200	0.19	0.19
225	0.17	0.17



Typical specification

The rainscreen insulation is to be RAINSCREEN DUO SLAB® mm thickness, as manufactured by ROCKWOOL Limited, Pencoed, Bridgend cf 35 6ny, secured to the substrate with metal and polypropylene fixings in accordance with RAINSCREEN DUO SLAB® Data sheet.

Horizontal joints should be staggered and all joints tight butted.

The Slabs should be fixed with the robust (patterned) surface facing outwards.

RAINSCREEN DUO SLAB

Installation

Work on site

RAINSCREEN DUO SLAB® are light and easy to cut to any shape with a sharp knife. They are shrink wrapped in polyethene and supplied on pallets that are shrouded with a waterproof hood suitable for outside storage. Once installed, due to their robust outer facing surface, the slabs can be left unprotected for an extended period of time prior to fixing the rainscreen cladding.

Workability

Light and easy to handle, the slabs are easy to cut to shape or size with a sharp knife, to suit the cladding system.

Rainscreen cladding – Metal rail systems

To obtain the optimum performance of the system, the Slabs should be applied with the patterned side facing outwards (see Figure 4). The resilient inner layer will accommodate surface irregularities (see Figure 3).

Close butt the slabs at all vertical and horizontal joints.

Stagger the horizontal joints of the insulation in accordance with good fixing practice.

Fix using a combination of metal and polypropylene fixings in accordance with the detail shown in Figure 1. Fixings should have a minimum head diameter of 70 mm.

RAINSCREEN DUO SLAB® should be cut and tightly fitted around wall brackets where these occur. See 'Construction 1' on the back page for typical U- values relating to this construction.

Suitable Fixing Manufacturers

Hilti: 0800 886100

ITW Construction Products Ltd.: 01592 771132

Ejot: 01977 687040

Fischer: 01491 827900

Rainscreen cladding – Timber rail application

The Slabs should be tightly fitted between the treated timber rails prior to the installation of the external cladding boards and mechanically fixed as shown in Figure 2. Provision should be made for a minimum 25 mm ventilated air space behind the cladding boards.

All horizontal joints should be closely butted to optimise the insulation performance.

See 'Construction 3' on the back page for typical U-values relating to this construction.

Specification Clauses

The following NBS Plus clauses include RAINSCREEN DUO SLAB®: H92:776, H20:10, H11:110, P10:42, 217

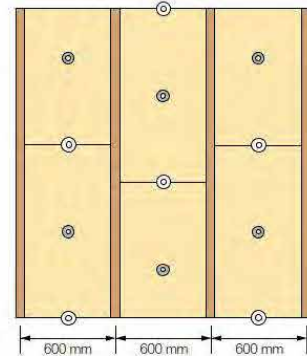


Figure 2
Typical fixing pattern between treated timber cladding rails

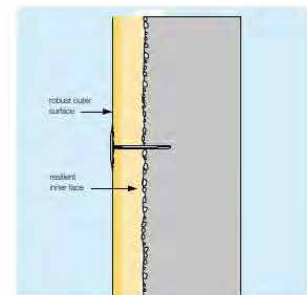


Figure 3
Dual density

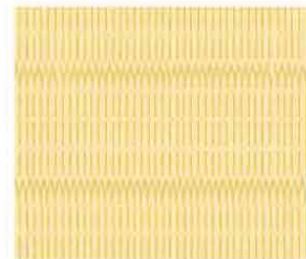


Figure 4
Textured outer face of slab

RAINSCREEN DUO SLAB

Sustainability

As an environmentally conscious company, ROCKWOOL promotes the sustainable production and use of insulation and is committed to a continuous process of environmental improvement.

All ROCKWOOL products provide outstanding thermal protection as well as four added benefits:



Fire resistance



Acoustic comfort



Sustainable materials



Durability

Health & Safety

The safety of ROCKWOOL stone wool is confirmed by current UK and Republic of Ireland health & safety regulations and EU directive 97/69/EC: ROCKWOOL fibres are not classified as a possible human carcinogen.

A Material Safety Data Sheet is available and can be downloaded from www.rockwool.co.uk to assist in the preparation of risk assessments, as required by the Control of Substances Hazardous to Health Regulations (COSHH).

Environment

Made from a renewable and plentiful naturally occurring resource, ROCKWOOL insulation saves fuel costs and energy in use and relies on trapped air for its thermal properties.

ROCKWOOL insulation does not contain (and has never contained) gases that have ozone depletion potential (ODP) or global warming potential (GWP).

ROCKWOOL is approximately 97% recyclable. For waste ROCKWOOL material that may be generated during installation or at end of life, we are happy to discuss the individual requirements of contractors and users considering returning these materials to our factory for recycling.



Interested?

For further information, contact the Technical Solutions Team on 01656 868490 or email technical.solutions@rockwool.co.uk

Visit www.rockwool.co.uk to view our complete range of products and services.

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RAINSCREEN DUO SLAB

The ROCKWOOL Trademark

ROCKWOOL® - our trademark

The ROCKWOOL trademark was initially registered in Denmark as a logo mark back in 1936. In 1937, it was accompanied with a word mark registration; a registration which is now extended to more than 60 countries around the world.

The ROCKWOOL trademark is one of the largest assets in the ROCKWOOL Group, and thus well protected and defended by us throughout the world.

If you require permission to use the ROCKWOOL logo for your business, advertising or promotion. You must apply for a Trade Mark Usage Agreement. To apply, write to:
marketcom@rockwool.com.

Trademarks

The following are registered trademarks of the ROCKWOOL Group:

ROCKWOOL®

ROCKCLOSE®

RAINSCREEN DUO SLAB®

HARDROCK®

ROCKFLOOR®

FLEXI®

BEAMCLAD®

FIREPRO®

Disclaimer

ROCKWOOL Limited reserves the right to alter or amend the specification of products without notice as our policy is one of constant improvement. The information contained in this brochure is believed to be correct at the date of publication. Whilst ROCKWOOL will endeavour to keep its publications up to date, readers will appreciate that between publications there may be pertinent changes in the law, or other developments affecting the accuracy of the information contained in this brochure. The applications referred to within the brochure do not necessarily represent an exhaustive list of applications. ROCKWOOL Limited does not accept responsibility for the consequences of using ROCKWOOL in applications different from those described within this brochure. Expert advice should be sought where such different applications are contemplated, or where the extent of any listed application is in doubt.

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marketcom@rockwool.com.

5.4. Effisus Breather FR System breather membrane



EFFISUS 2ADJOIN DF TAPE

Double-sided airtight and moisture resistant sealing tape suitable to fix the Effisus Breather FR membrane to aluminium, SFS metal studs and Effisus Breather FR membrane overlaps.

CLASS A2-s1, d0

✓ Membrane

✓ Fastening Accessories

✓ Overlaps Accessories

✓ Penetrations Sealing

Tested & Approved



TECHNICAL DATA

EFFISUS 2ADJOIN DF

	Temperature resistance	-40°C to 90°C
	Standard roll size	2.5cm x 20.0 lm
	Shear resistance EN 12317-2 ^{a)}	327 (N/50 mm)
	T-Peel EN 12316-2 ^{a)}	47 (N/50 mm)

a) Results obtained based on shear resistance test standard EN 12317-2 and T-peel test standard EN12316-2 of Effisus Breather FR membrane joint and Effisus 2Adjoin DF tape.

EFFISUS 2BOND DS TAPE

Double-sided self-sealing adhesive tape creating a permanent weatherproofing seal on concrete, aluminium, sheathing boards and many other substrates. Specially designed to perimeter seal the membrane edges ensuring an effective sealant on membranes nail/screw perforations.

CLASS A2-s1, d0




- ✓ Membrane
- ✓ Fastening Accessories
- ✓ Overlaps Accessories
- ✓ Penetrations Sealing

Tested & Approved



TECHNICAL DATA

EFFISUS 2BOND DS

←  →	Elongation	> 500% ± 100
	Standard roll sizes	25mm x 15,25 lm 50mm x 15,25 lm
←  →	Temperature resistance	-57°C to >+93°C
→  ←	Total thickness	1,54mm
	Water vapour test (EN 1931)	W1
	Shear resistance EN 12317-2 ^{a)}	> 73 (N/50 mm)
←  →	Elongation at Break EN 12317-2 ^{a)}	18 mm
←  →	Elongation (47N / 50 mm)	25 mm
	Application temperature	66°C to -29°C ambient

a) Results obtained based on shear resistance test standard EN 12317-2 between the Effisus 2Bond DS tape and the Effisus Breather FR membrane;



ACCESSORIES SELECTOR

Effisus Breather FR System achieved a fire reaction Class A2-s1,d0 as a system with Effisus accessories (double side adhesive tapes).



EFFISUS 2BOND DS
(double side tape)



EFFISUS 2ADJOIN DF
(double side tape)

 Membrane Fixing	Concrete or similar porous surfaces	•	
	Aluminium Foil (insulation)		•
	Gypsum Sheathing Board, Calcium Silicate Boards, Cement Basis or similar		•
<div>   </div>			
 Membrane Overlaps		•	•
 Perimeter Sealing	Concrete or similar porous surfaces	•	
	Aluminium	•	•
	Gypsum Sheathing Board, Calcium Silicate Boards, Cement Basis or similar	•	•
 Perforations Sealing	Pipes	•	
	Electrical Cables	•	
	Nail/screw	•	

TECHNICAL DATA

Essential characteristics		METHOD	RESULT
	Thickness	EN ISO 12572	0.21 ± 0.021 mm
	Length	-	93.45 m
	Width	-	1.07 m
	Reaction to fire	System	ASTM E84 EN 13501-1 a)
		Membrane	EN 13501-1
			Class A (or Class 1) A2 - s1, d0 A1
	Resistance to water penetration	EN 1928/EN 13111	W2, pass
	Density of vapour flow rate, g (kg)/(m2.s)	EN ISO 12572	8.31 x 10 ⁻⁶ ± 2.81 x 10 ⁻⁷
	Water vapour transmission properties (sd-value) (m)	EN ISO 12572	0.013 ± 0.001
	Tensile Strength MD/CD (N/50mm)	EN 12311-1	2015 / 1725
	Joint Strength (N/50 mm)	EN 12317-2	327 (N/50 mm)
	Elongation at Break MD/CD (%)	EN 12311-1	4/ 3
	Nail tear resistance MD/CD (N)	EN 12310-1	328 / 255
	Flexibility at low temperatures (- 40 °C)	EN 1109	No cracks
	Artificial ageing by long term exposure to the combination of UV radiation and elevated temperature and heat	Elongation ^{b)} (%)	5 / 4
		Tensile Strength ^{b)} (N/50mm)	2800 / 2210
		Resistance to water penetration ^{c)}	W2, pass

a) The fire classification was obtained with Effisus accessories (double side adhesive tapes) tested as a system.

b) In accordance with Annex C of EN 13859-2 (EN 12311-1)


c) In accordance with Annex C of EN 13859-2 (EN 1928/EN 13111)



TECHNICAL DATA SHEET

EFFISUS BREATHER FR SYSTEM

A1 CLASS FIRE RATED WEATHERPROOFING BREATHABLE MEMBRANE

 [View on the website](#)



EFFISUS BREATHER FR MEMBRANE

Effisus Breather FR membrane was designed for protection of facades against moisture, driving rain and wind avoiding corrosion, insulation deterioration and mould growth on the facade elements.

It has an exceptional UV resistance and the existence of a large range of accessories allows its installation on the most demanding project requirements.



EFFISUS ACCESSORIES SYSTEM

X2 SYSTEM POSSIBILITIES

Effisus 2Bond DS Tape

Function

Perimeter sealing;
sealing nail/screw perforations

Substrates compatibility

Concrete or similar porous surfaces; Aluminum;
Gypsum Sheathing Board, Calcium Silicate Boards,
Cement Basis or similar; EPDM; Roofing membrane;
Gas membrane

Special notes

Accessory with elongation and with 1.54mm
thickness to allow movements



Effisus 2Adjoin DF Tape

Function

Fixing and membrane overlaps

Substrates compatibility

Galvanized Studs or similar metallic smooth
surface and Gypsum Sheathing Board, Calcium
Silicate Boards, Cement Basis or similar



CERTIFICATIONS ON GOING



.01

5.5. Valcan ProcellaPro 12mm calcium silicate cement building board



System overview

ProcellaPro is a non-combustible A1 fire rated, calcium silicate-based fibre cement board using cellulose fibres for structural strength. ProcellaPro is used as a building board or sheathing board for many applications where a non-combustible solution is required.

Features and benefits:

- Sound dampening properties
- Insulation fixings can be screwed into the panel
- High strength
- Easy to fabricate on site
- Fast lead times
- A1 fire rating to BS EN 13501-1

Application:

ProcellaPro can be used for internal wall linings, tile back board and externally as a rigid sheathing board.

Panels are cut from large format sheets to suite the requirements of the build application. The Vitrafix WT fixing drills a hole into the panel and then into light weight steel frame behind, the countersunk head helps to ensure smooth board surface ready for application of any required breather membranes.

Contacts:

- www.valcan.co.uk
- enquiries@valcan.co.uk
- T: +44 (0) 1278 428 245

• **Sheathing board**

- o **Product reference:**
 - ProcellaPro
- o **Thickness/weight:**
 - [12 mm] - 18.56 kg/m²
 - [10 mm] - 15.47 kg/m²
- o **Panel size (l x w):**
 - [2500 x 1250 mm]
- o **Fire Rating to BS EN 13501-1: A1**
- o **Manufacturer:**
 - Valcan
 - www.valcan.co.uk
 - enquiries@valcan.co.uk



- o **Fixings:** [VFSDPP4.838/WT] - Vitrafix Self Drill ProcellaPro WT fixing, 4.8x38mm with Countersunk Head – Consult manufacturers details for fixing layouts



EFFECTIS UK/Ireland Limited
Shore Road - Newtownabbey
Co Antrim - BT 37 0QB
United Kingdom

CLASSIFICATION REPORT

REACTION TO FIRE - CLASSIFICATION REPORT EUI-21-000437-Revision 1

This report cancels and replaces the Classification Report, EUI-21-000437

1. INTRODUCTION

This classification report defines the classification assigned to ProcellaPro with the procedures given in BS EN 13501-1:2018.

REACTION TO FIRE CLASSIFICATION IN ACCORDANCE WITH BS EN 13501-1:2018

Sponsor : Fairview Europe Ltd. t/a Valcan
Dunball House
Unit N
Woodlands Court Business Park
Bristol Road
Bridgwater
TA6 4FJ
UNITED KINGDOM

Prepared by: Efectis UK/Ireland

Approved Body No: 2822

Product name: Fibre cement panel
Reference: ProcellaPro

Classification report No.: EUI-21-000437-Revision 1

Issue number: 2

Date of issue: 17th of December, 2021

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EUI-21-000437-Revision 1

CLASSIFICATION REPORT

2. DOCUMENT TRACKING

Revision Index	Modification
0	Original document
1	Some changes have been made on the address of the Sponsor

3. DESCRIPTION OF THE PRODUCT

3.1. GENERAL

The product, ProcellaPro is defined as a Fibre cement panel according to BS EN 12467: 2012 – Fiber Cement Flat Sheets - Product Specifications and Test Methods.

3.2. PRODUCT DESCRIPTION

The product, ProcellaPro, is described below or is described in the reports provided in support of classification listed in 4.1.

Product description	
Trade mark	ProcellaPro
Composition	The product is a compressed fibre cement panel. More information provided but withheld on the report for commercially sensitive reasons.
Thickness	12 mm
Mass per unit area	16.8 kg/m ²
Density	1400 kg/m ³

4. REPORTS AND RESULTS IN SUPPORT OF THIS CLASSIFICATION

4.1. REPORTS

Name of Laboratory	Name of sponsor	Report ref. no	Test method and date field of application rules and date
EFFECTIS France	Fairview Europe Ltd. t/a Valcan	EFR-21-NC-004776	NF EN ISO 1182: 2013
EFFECTIS UK/Ireland	Fairview Europe Ltd. t/a Valcan	EUI-21-HC-000437- Revision 1	BS EN ISO 1716 : 2018

Data Sheets



EUI-21-000437-Revision 1

CLASSIFICATION REPORT

4.2. RESULTS

Test method and test number	Parameter	No. Tests ^{a)}	Results	
			Continuous parameter - mean (m)	Compliance with parameters
BS EN ISO 1716 : 2018 EUI-21-HC-000437-Revision 1	PCS (MJ/kg) GCV (MJ/kg)	3	0.85 (MJ/kg) 14.28 (MJ/m ²)	-
NF EN ISO 1182 : 2013 EFR-21-NC-004776	Temperature rise	5	1.76	-
	Δm (%) Mass loss		11.82	-
	t _f (s) Duration of sustained flaming		0	-

a) Not for extended application
(-) means not applicable

5. CLASSIFICATION AND FIELD OF APPLICATION

5.1. REFERENCE OF CLASSIFICATION

This classification has been carried out in accordance with BS EN 13501-1:2018.

5.2. CLASSIFICATION

The product, ProcellaPro, in relation to its reaction to fire behaviour is classified:

A1

The format of the reaction to fire classification for construction products excluding floorings and linear pipe thermal insulation products is:

Fire behaviour	
A	1

i.e. A1

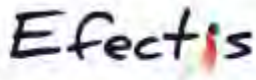
Reaction to fire classification	A1
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5.3. FIELD OF APPLICATION

This classification is valid for the following product parameters and end-use applications:

Thickness	Valid for all thicknesses
Density	Valid for the density of 1400 ± 150 kg/m ³
Type of product/ facings	Valid for tested type of product only (same formulation). Valid for a different surface texture.

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Page 3 of 4



EUI-21-000437-Revision 1

CLASSIFICATION REPORT

Asymmetry
Colour

Valid for fire on either side
Valid for the tested colour

6. LIMITATIONS

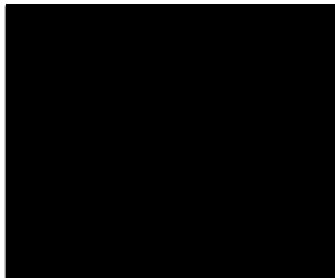
This classification document does not represent type approval or certification of the product.

*The classification assigned to the product in this report is appropriate to a declaration of conformity by the manufacturer within the context of system 3 attestation of conformity and UKCA/UKNI marking under the Construction Products Regulation.

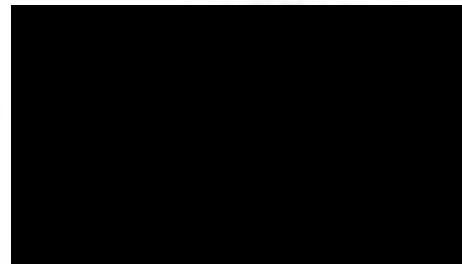
The manufacturer has made a declaration, which is held on file. This confirms that the products design requires no specific processes, procedures or stages (e.g. no addition of flame-retardants, limitation of organic content, or addition of fillers) that are aimed at enhancing the fire performance in order to obtain the classification achieved. As a consequence the manufacturer has concluded that system 3 attestation is appropriate.

The test laboratory has, therefore, played no part in sampling the product for the test, although it holds appropriate references, supplied by the manufacturer, to provide for traceability of the samples tested.*

SIGNED



Project Leader



Technical Manager

5.6. Valcan Ceramapanel privacy screens



Ceramapanel® A1 panels

Valcan produces Ceramapanel® A1 fibre-cement flat panels for use as external and internal cladding for walls and ceilings. The panels bear CE and UKCA marking compliant with the UNI EN 12467 harmonized standard.

This manual refers only to the use of Ceramapanel® A1 panels for vertical facade cladding.

The panels are made of fibre cement – a cement matrix mixture with mineral adjuvants, with the addition of organic fibres.

For the latest information on available finishes and treatments, visit our website at <https://valcan.co.uk/product/Ceramapanel®>

Ceramapanel® A1 panels for ventilated facade cladding can be purchased in standard sizes or smaller dimensions cut to customer specifications. They are available in thicknesses of 8, 10, and 12 mm.

The edges of the panels are rectified and their surface is smoothed to ensure their geometry as per the UNI EN 12467 harmonized standard. The smoothing direction follows the direction of the fibres, and is visible on some of the available finishes. This has a great impact on the aesthetic appearance of the facade. These aspects should be taken into due consideration by the designer and installers of the ventilated facade.

During production, the fibres in the panels are oriented running the length of the panel, which allows for greater strength in the longitudinal direction.

The non-uniformity of color and the presence of small markings on the surface of the panels are part of what makes the product unique.

Technical specification of Ceramapanel® A1 panels

The following tables outline the standard geometrical specifications of Ceramapanel® A1 fibre-cement flat panels. These specifications comply with the requirements of the EN 12467 standard.

Standard dimensions		
Length (mm)	Width (mm)	Thickness (mm)
2500	1200	8, 10, 12
2500	1250	8, 10, 12
3000	1200	8, 10, 12
3000	1250	8, 10, 12
3050	1200	8, 10, 12
3050	1250	8, 10, 12

Table 1 – Dimensions of the panels in standard formats

Tolerances for standard dimensions Level 1 (as per UNI EN 12467)	
Length	± 2 mm
Width	± 1 mm
Thickness	± 0.2 mm
Edge straightness	0.1%
Perpendicularity of edges	2 mm/m

Table 2 – Tolerance guaranteed by manufacturer. The geometric tolerances are Level 1 as per UNI EN 12467.

Thickness	Weight (kg/m²)
8	14.4
10	18
12	21.6

Table 3 – Unit weight of panels depending on their thickness

The classification as per the UNI EN 12467 standard of autoclaved and double-compressed Ceramapanel® A1 fibre-cement flat panels is as follows:

Panels	Property	Classification as per UNI EN 12467	Notes
All	Production technology	NT	"Non-asbestos" or even "Asbestos-free" technology
All	Weather resistance	Category A	For outdoor applications in severe climatic conditions (can withstand heat, high humidity levels, intense frosts)
Surface-treated panels	Strength	Class 4	Modulus of Rupture (MOR) ≥ 24 MPa
All	Geometric tolerances	Level 1	See the technical specifications table of the panels
All	Reaction to fire	A1	Non-combustible

Table 4 – Classification as per UNI EN 12467 standard



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Holmesfield Road
Warrington
WA1 2DS

info.warrington@warringtonfire.com
warringtonfire.com

Title:

**CLASSIFICATION OF
REACTION TO FIRE
PERFORMANCE
IN ACCORDANCE WITH
EN 13501-1:2007+A1: 2009**

Notified Body No:

0633

Product Name:

"Ceramapanel A1"

Report No:

WF 410112

Issue No:

1

Prepared for:

**Valcan Ltd
Unit 7 Robins Drive
Castefields Industrial Estate
Bridgwater
United Kingdom
TA6 4DL**

Date:

4th March 2019



Warringtonfire Testing and Certification Limited
Registered in England and Wales
Registered Office: 10 Lower Grosvenor Place, London, United Kingdom, SW1W 0EN
Company Registration No: 11371436

1. Introduction

This classification report defines the classification assigned to "Ceramapanel A1", a natural fibre-cement flat sheet coated with paint or with added pigment, in line with the procedures given in EN 13501-1:2007+A1: 2009.

2. Details of classified product

2.1 General

The product, "Ceramapanel A1", a natural fibre-cement flat sheet coated with paint or with added pigment, is defined as being suitable for construction applications.

2.2 Product description

The product, "Ceramapanel A1", is fully described below and in the test reports provided in support of classification listed in Clause 3.1.

General description		Double Pressed and Autoclaved Fibre Cement Flat Board
Product reference of overall composite		"Ceramapanel A1"
Name of manufacturer of overall composite		Valcan Ltd
Thickness of overall composite		8mm / 10mm / 12mm
Weight per unit area of overall composite		Kg/m ² = 14.4 / 18 / 21.6
Coating Option 1 - Ceramapanel Natural Raw+	Generic type	Acrylic Anti-Graffiti coating
	Product reference	See Note 1
	Name of manufacturer	See Note 1
	Colour reference	Clear coating
	Number of coats	1
	Application rate / thickness per coat	40-60g/m ²
	Density / specific gravity	See Note 2
	Application method	By Roller
	Curing process per coat	IR Heated + UV Cured
	Trade name of flame retardant	N/A
	Generic type of flame retardant	N/A
	Amount of flame retardant	N/A
Coating Option 2- Ceramapanel Painted	Generic type	Acrylic Paint + Acrylic Anti-Graffiti coating
	Product reference	See Note 1
	Name of manufacturer	See Note 1
	Colour reference	As required
	Number of coats	2
	Application rate / thickness per coat	Acrylic Paint 30-40g/m ² Acrylic Anti-Graffiti coating 10-20g/m ²
	Density / specific gravity	See Note 2
	Application method	By Roller

Continued on next page...

	Curing process per coat	IR Heated + UV Cured
	Trade name of flame retardant	N/A
	Generic type of flame retardant	N/A
	Amount of flame retardant	N/A
Coating Option 3 - Ceramapanel Natural Raw	Generic type	Hydrophobic coating
	Product reference	See Note 1
	Name of manufacturer	See Note 1
	Colour reference	Clear coating
	Number of coats	1
	Application rate / thickness per coat	40-60g/m ²
	Density / specific gravity	See Note 2
	Application method	Flow coating
	Curing process per coat	Drying Process by Ovens
	Trade name of flame retardant	N/A
	Generic type of flame retardant	N/A
	Amount of flame retardant	N/A
Fibre cement board	Generic type	Fibre Cement board
	Product reference	Ceramapanel
	Detailed description / composition details	Asbestos free, double pressed and autoclaved through coloured flat boards, reinforced with mineralized cellulose and glass fibres
	Name of manufacturer	See Note 3
	Thickness	8mm / 10mm / 12mm
	Density / weight per unit area	14.4 / 18 / 21.6 kg/m ²
	Colour reference	Through coloured
	Trade name of flame retardant	N/A
	Generic type of flame retardant	N/A
	Amount of flame retardant	N/A
Mounting and fixing details		Screwed on metal frame, with 40mm air gap from Gypsum plasterboard substrate

Note 1: The sponsor was unwilling to provide this information.

Note 2: The sponsor was unable to provide this information.

Note 3: The sponsor of the test has provided this information but at the specific request of the sponsor, these details have been omitted from the report and are instead held on the confidential file relating to this investigation.

3. Test reports & test results in support of classification.

3.1 Test reports.

Name of Laboratory	Name of sponsor	Test reports Nos.	Test method
Istituto Giordano S.p.A	Valcan Ltd	350434/11332/CPR	BS EN 13823
Istituto Giordano S.p.A	Valcan Ltd	347132/11043/CPR 347133/11044/CPR	EN ISO 1716
LAPI	Valcan Ltd	660.1DC0011/14	EN ISO 1716
Warringtonfire	Valcan Ltd	WF 410891	EN ISO 1716 - Summary Report
LAPI	Valcan Ltd	660.0IS0010/14	EN ISO 1182
LAPI	Valcan Ltd	660.0DC0050/14	EN 13501-1
Istituto Giordano S.p.A	Valcan Ltd	350435/11333/CPR	EN 13501-1

3.2 Test results

Test method & test number	Parameter	No. tests	Results	
			Continuous parameter - mean (m)	Compliance parameters
BS EN ISO 1182 (fibre cement board)	Furnace thermocouple temperature rise (°C)	5	4.74 °C	Compliant
	Duration of sustained flaming (seconds)		None	Compliant
	Mass Loss (%)		11.5 %	Compliant
EN ISO 1716	Acrylic Paint+Acrylic Anti-Graffiti coating - PCS (b) – External non-substantial component	3	1.6 MJ/m ²	Compliant
	Hydrophobic Coating - PCS (b) – External non-substantial component		2.0 MJ/m ²	Compliant
	Fibre cement board – PCS (a) – Substantial component		1.12 MJ/kg	Compliant
	For the product as a whole – PCS (e)	N/A	1.3 MJ/kg (Hydrophobic Coating)	Compliant
			1.2 MJ/kg* (Acrylic Paint+Acrylic Anti-Graffiti coating)	
Note 1: The product did not pass the requirements for PCS (b), however, the product is deemed to be compliant if in accordance with Table 1, Note C of EN 13501-1, any external non-substantial component having a PCS (c) ≤ 2.0 MJ/m ² , provided that the product satisfies the following criteria of EN 13823: FIGRA ≤20 W/s & LFS <edge of specimen & THR≤ 4.0MJ & S1 & d0				
BS EN 13823 (fibre cement board w/hydrophobic coating)	FIGRA 0.2MJ	3	0.0 W/s	Compliant
	FIGRA 0.4MJ		0.0 W/s	Compliant
	THR 600s		0.4 MJ	Compliant
	SMOGRA		0.0 m ² s ²	Compliant
	TSP 600s		20 m ²	Compliant
	Lateral Flame Spread to End of Specimen?		None	Compliant
	Fall of Flaming Drop/Particle?		None	Compliant
	Flaming of Fallen Particle Exceeding 10s?		None	Compliant

**A decision was made by Istituto Giordano and subsequently agreed with by Warringtonfire that the 'Ceramapanel Natural Raw+' transparent acrylic paint possesses a lower PCS (MJ/m²) value to the 'Ceramapanel Painted' coating due the latter being an identical product with the addition of coloured pigments.*

4. Classification and field of application

4.1 Reference of classification

This classification has been carried out in accordance with clause 8 and 9 of EN 13501-1:2007+A1: 2009.

4.2 Classification

The product, "Ceramapanel A1", a natural fibre-cement flat sheet coated with paint or with added pigment, in relation to its reaction to fire behaviour is classified:

Reaction to fire classification: A1/A1_{FL}

4.3 Field of application

This classification is valid for the following end use applications:

- i) Construction applications – Floorings, ceiling elements or non-structural walls
- ii) Construction applications applied over any substrate with a minimum density of 700kg/m³, having a minimum thickness of 12.5mm and a fire performance of A2-s1,d0 or better
- iii) Construction applications - Free standing

This classification is also valid for the following product parameters:

Coating type	Coating option 1 OR 2 OR 3 OR no coating allowed
Coating application rate	No variation allowed
Fibre cement board thickness	≥8mm allowed
Fibre cement board density	No variation allowed
Product composition	No variation allowed
Product construction	No variation allowed
Junction	Joint opening width ≤ 8mm
Air gap details	≥ 40mm allowed

WF Classification Report
No.410112

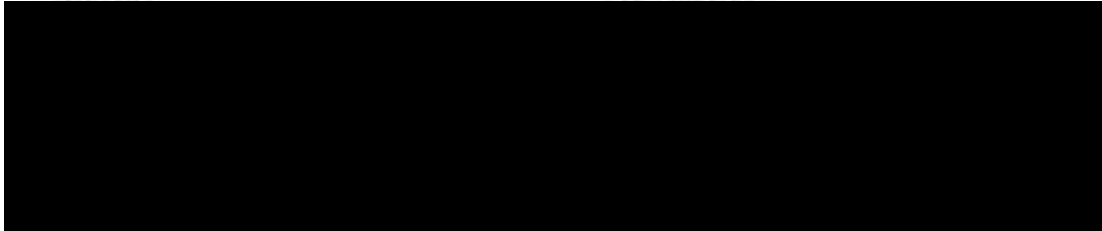
Page 7 of 7

5. Limitations

This document does not represent type approval or certification of the product.

SIGNED

APPROVED



Technical Department

















Technical Department
On behalf of Warringtonfire

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Data Sheets

5.6. PHOENIX “Exadeck” porcelain decking

EXADECK		TECHNICAL DATA		
PROPERTY	DESCRIPTION	TEST	STANDARD	RESULTS
	Sizes- Dimensions	ISO 10545-2	±1,0% ±2,0mm	±0,6% ±2 mm
	Length and width	ISO 10545-2	± 10%	±5% ±1,2 mm
	Thickness	ISO 10545-2	± 0,5%	±0,5% ±2 mm
	Straightness of sides	ISO 10545-2	± 1,0%	± 0,5%
	Rectangularity	ISO 10545-2w	± 0,5%	± 0,5%
	Surface Flatness			
	Fire Resistance	A1-A2	Class A1-A2	Class A1fl
	Water absorption	ISO 10545-3	≤ 0,5 %	≤ 0,5 %
	Breaking strength	ISO 10545-4	≥ 3000 N	≥ 15.000 N
	Resistance to surface abrasion	ISO 10545-7	1 - 5	5
	Resistance to thermal shock	ISO 10545-9	required	guaranteed
	Crazing resistance	ISO 10545-11	required	guaranteed
	Frost resistance	ISO 10545-12	required	guaranteed
	Chemical resistance	ISO 10545-13	minimum B	A/LA/HA
	Stain resistance	ISO 10545-14	minimum Class 3	Class 5
	Anti-slip resistance (barefoot)	DIN 51097	—	E group
	Anti-slip resistance (ramp)	DIN 51130	—	R11
	Slip Resistance (pendulum)	UNE-41901 EX	required (C.T.E)	ANTISLIP Class 3
	Minimal value of static load	EN 12825	—	Class 2
	Maximum value of deflection for ultimate load 6kN	EN 12825	—	Class A
<p>FORMAT OF EXADECK</p> <p>Nominal Size: 1202x145mm</p> <p>Actual Size: 1202x141mm, Thickness: 26.5mm</p> <p>Weight: 8.32kg (per board)</p> <p>www.abcommercialflooring.com</p>				
				



WESSEX
RESBALADICIDAD

*Ensayo del Péndulo.
Parte 2: Método Operativo (PTV)
según la norma BS 7976-2:2002 + A1:2013*

Ensayo en laboratorio permanente
Test in permanent laboratory

XDECK

Pendulum testers. Part 2: Method of operation. (PTV).
According Standard BS 7976-2:2002 + A1:2013



ilac-MRA
ENAC
ENSAYOS
N° 1131 / LE2203

WESSEX laboratorio de ensayos / testing laboratory
Laboratorio de resbaladicidad SL

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Informe Nº / Report number	11463		*Información aportada por el cliente / Information provided by client	
Muestra / Sample	XDECK			
Peticionario / Requested by	AB BUILDING PRODUCTS LIMITED UNIT 4-5 REGENTS COURT, SOUTH WAY, WALWORTH INDUSTRIAL ESTATE, ANDOVER, SP10 5NX			
Fabricante / Manufacturer	AB BUILDING PRODUCTS LIMITED			
Suministrador / Supplier	AB BUILDING PRODUCTS LIMITED			
Fecha recepción / Reception date	04/06/2020		Fecha realización / Test date	05/06/2020
Número de piezas / Number of items	2		Fecha Emisión / Issuance	05/06/2020
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Data Sheets



Pendulum testers. Part 2: Method of operation. (PTV).
According Standard BS 7976-2:2002 + A1:2013
Ensayo de Fricción. Parte 2: Método Operativo (PTV)
según la norma BS 7976-2:2002 + A1:2013

Ensayo en laboratorio
permanent
Test in permanent laboratory

Informe Nº / Report number	11463	*Información aportada por el cliente / Information provided by client	
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Peticionario / Requested by	AB BUILDING PRODUCTS LIMITED		
	UNIT 4-5, REGENTS COURT, SOUTH WAY, WALWORTH INDUSTRIAL ESTATE, ANDOVER, SP10 5NX		
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Tarifa / Tariff rate

Result obtained

Superficie / Surface

4S Rubber / 96 SLIDK®

Temperatura ambiente / °C /
Temperature of sample / °C

21.6

DETERMINATION OF SLIP RESISTANCE
BS 7976-2:2002 Pendulum test - Method of operation

POSICIÓN / POSITION	DRY (Horizontal)	DRY (Vertical)	DRY (Diagonal)	WET (Horizontal)	WET (Vertical)	WET (Diagonal)
INDIVIDUAL VALUES 1	69	64	64	57	55	54
INDIVIDUAL VALUES 2	69	64	64	57	56	54
INDIVIDUAL VALUES 3	69	64	64	57	56	54
INDIVIDUAL VALUES 4	69	64	64	57	56	54
INDIVIDUAL VALUES 5	69	64	63	57	56	53
AVERAGE VALUE	69	64	64	57	56	54
AVERAGE OF 15 VALUES	DRY 66			WET 56		

Incertidumbre del resultado del ensayo /
Uncertainty of the test result

(k=2)

4

(k=2)

7


La incertidumbre expresada de modo tal en los resultados multiplicando la incertidumbre de medición por el factor de cobertura k=2 que para una distribución normal y una probabilidad de cobertura de aproximadamente el 95%. La incertidumbre obtenida de modo tal ha determinado conforme al cumplimiento de la UNE EN 12697.

Slip potential classifications for PTV

LRSRC UK Slip Resistance Group Guidelines Issue 5/2016

Roadways treated with Saker 96 (and Saker 95, when required)

PTV	Slip potential
0-24	High
25-35	Moderate
36+	Low



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Data Sheets

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Informe Nº / Report number	11463	*Información aportada por el cliente / Information provided by client			
Muestra / Sample	XDECK				
Peticionario / Requested by	AB BUILDING PRODUCTS LIMITED UNIT 4-5, REGENTS COURT, SOUTH WAY, WALWORTH INDUSTRIAL ESTATE, ANDOVER, SP10 5NX				
Fabricante / Manufacturer	AB BUILDING PRODUCTS LIMITED				
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Muestra / Sample:	XDECK				
Peticionario / Requested by:	AB BUILDING PRODUCTS LIMITED UNIT 4-5, REGENTS COURT, SOUTH WAY, WAL WORTH INDUSTRIAL ESTATE, ANDOVER, SP10 5NX				
Fabricante / Manufacturer:	AAB BUILDING PRODUCTS LIMITED				
Suministrador / Supplier:	AB BUILDING PRODUCTS LIMITED				
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Número de piezas / Number of items:	2	Fecha Emisión / Issue date:	05/06/2020		



[Signature]

Diego Kallik Greenberg
Technical Director
Laboratorio de metalurgia 9

CLAYTONIA COMPTONII (C. COMPTONII)

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That would be a good idea, but it's not the best idea.

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CONCLUSION The R320A/R326A/S328L mutation was the most favorable of the variants of the protein tested.

DESERVING ACHIEVEMENTS

PRODUCT: XDECK GREY 1202 x Z6 x 145mm

Numero degli studenti ammessi/Numero pagine actual report

4/4

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 I/S 1 Fecha de inscripción: 26/04/2014

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PHOENIX EXADECK Fire Exemption Document

19. 10. 96

EN

Official Journal of the European Communities

No L 267/23

II

(Acts whose publication is not obligatory)

COMMISSION

COMMISSION DECISION

of 4 October 1996

establishing the list of products belonging to Classes A 'No contribution to fire' provided for in Decision 94/611/EC implementing Article 20 of Council Directive 89/106/EEC on construction products

(Text with EEA relevance)

(96/603/EC)

THE COMMISSION OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Community,

Having regard to Council Directive 89/106/EEC of 21 December 1988 on the approximation of laws, regulations and administrative provisions of the Member States relating to construction products⁽¹⁾, as amended by Directive 93/68/EEC⁽²⁾,

Having regard to Commission Decision 94/611/EC of 9 September 1994 implementing Article 20 of Council Directive 89/106/EEC on construction products⁽³⁾, and in particular Article 1 (1) thereof,

Whereas Article 3 (2) of Directive 89/106/EEC states that in order to take account of different levels of protection for the construction works that may prevail at national, regional or local levels, each essential requirement may give rise to the establishment of classes in the interpretative documents and the technical specifications;

Whereas point 4.2.1 of Interpretative Document No 2 'Safety in case of fire', contained in the Communication of the Commission with regard to the interpretative documents of Council Directive 89/106/EEC⁽⁴⁾, justifies the need for different levels of the Essential Requirement as a

function of the type, use and location of the construction work, its layout, and the availability of the emergency facilities;

Whereas point 2.2 of Interpretative Document No 2 lists a number of interrelated measures for the satisfaction of the Essential Requirement 'Safety in case of fire' which, together, contribute to the definition of a fire-safety strategy that can be developed in different ways in Member States;

Whereas point 4.2.3.3 of Interpretative Document No 2 identifies one of the measures prevailing in Member States that consists in limiting the generation and spread of fire and smoke within the room of origin (or in a given area) by limiting the contribution of construction products to the full development of a fire;

Whereas the definition of classes of the Essential Requirement depends partially on the level of such limitation;

Whereas the level of limitation may be expressed only by different levels of product performance, in the products end-use conditions, in reaction to fire;

Whereas point 4.3.1.1 of Interpretative Document No 2 specifies that to enable the reaction-to-fire performance of products to be evaluated, a harmonized solution will be developed which may utilize full or bench-scale tests that are correlated to relevant real fire scenarios;

Whereas this solution lies in a system of classes which are not included in the interpretative document but which were adopted in Decision 94/611/EC;

⁽¹⁾ OJ No L 40, 11. 2. 1989, p. 12.

⁽²⁾ OJ No L 220, 30. 8. 1993, p. 1.

⁽³⁾ OJ No L 241, 16. 9. 1994, p. 25.

⁽⁴⁾ OJ No C 62, 28. 2. 1994, p. 1.

Whereas in the system of classes contained in Decision 94/611/EC, the category 'No contribution to fire' was established with a view to covering products which do not need to be tested for their reaction to fire and which are referred to as Classes A in Tables 1 and 2 and, additionally, in Table 1 as 'list of non-combustible products';

Whereas Article 20 (2) of Directive 89/106/EEC indicates the procedure to be followed for the adoption of the provisions necessary for the establishment of classes of requirements in so far as they are not included in the interpretative documents;

Whereas the measures provided for in this Decision are in accordance with the opinion of the Standing Committee on construction,

HAS ADOPTED THIS DECISION:

Article 1

The materials, and products made from them, that are listed in the Annex to this Decision, shall, on account of

their low level of combustibility and subject to the conditions also set out in the Annex, be classified in Classes A ('No contribution to fire') as provided for in Tables 1 and 2 of the Annex to Decision 94/611/EC.

For the purpose of this classification, no reaction-to-fire testing of those materials and products made from them shall be required.

Article 2

This Decision is addressed to the Member States.

Done at Brussels, 4 October 1996.

For the Commission

Martin BANGEMANN

Member of the Commission

ANNEX

Materials to be considered as reaction to fire Classes A provided for in Decision 94/611/EC without the need for testing

General notes

Products should be made only from one or more of the following materials if they are to be considered as Classes A without testing. Products made by gluing one or more of the following materials together will be considered Classes A without testing provided that the glue does not exceed 0,1 % by weight or volume (whichever is the lower).

Panel products (e.g. of insulating material) with one or more organic layers, or products containing organic material which is not homogeneously distributed (with the exception of glue) are excluded from the list.

Products made by coating one of the following materials with an inorganic layer (e.g. coated metal products) may also be considered as Classes A without testing.

None of the materials in the table is allowed to contain more than 1,0 % by weight or volume (whichever is the lower) of homogeneously distributed organic material.

Material	Notes
Expanded clay	
Expanded perlite	
Expanded vermiculite	
Mineral wool	
Cellular glass	
Concrete	Includes ready-mixed concrete and precast reinforced and prestressed products
Aggregate concrete (dense and lightweight mineral aggregates, excluding integral thermal insulation)	May contain admixtures and additions (e.g. PFA), pigments and other materials. Includes precast units
Autoclaved aerated concrete units	Units manufactured from hydraulic binders such as cement and/or lime, combined with fine materials (siliceous material, PFA, blast furnace slag), and cell generating material. Includes precast units.
Fibre cement	
Cement	
Lime	
Blast furnace slag/pulverized fly ash (PFA)	
Mineral aggregates	
Iron, steel and stainless steel	Not in finely divided form
Copper and copper alloys	Not in finely divided form

Data Sheets

No L 267/26

EN

Official Journal of the European Communities

19. 10. 96

Material	Notes
Zinc and zinc alloys	Not in finely divided form
Aluminium and aluminium alloys	Not in finely divided form
Lead	Not in finely divided form
Gypsum and gypsum based plasters	May include additives (retarders, fillers, fibres, pigments, hydrated lime, air and water retaining agents and plasticisers), dense aggregates (e.g. natural or crushed sand) or lightweight aggregates (e.g. perlite or vermiculite).
Mortar with inorganic binding agents	Rendering/plastering mortars and mortars for floor screeds based on one or more inorganic binding agent(s), e.g. cement, lime, masonry cement and gypsum
Clay units	Units from clay or other argillaceous materials, with or without sand, fuel or other additives. Includes bricks, tiles, paving and fireclay units (e.g. chimney liners)
Calcium silicate units	Units made from a mixture of lime and natural siliceous materials (sand, siliceous gravel or rock or mixtures thereof). May include colouring pigments.
Natural stone and slate products	A worked or non-worked element produced from natural stone (igneous, sedimentary or metamorphic rocks) or slate
Gypsum unit	Includes blocks and other units of calcium sulphate and water, that may incorporate fibres, fillers, aggregates and other additives, and may be coloured by pigments
Terrazo	Includes precast concrete terrazotiles and in-situ flooring.
Glass	Includes heat strengthened, chemically toughened, laminated and wired glass.
Glass ceramics	Glass ceramics consisting of a crystalline and a residual glass phase
Ceramics	Includes dust-pressed and extruded products, glazed or unglazed



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GAA Design is the trading name for GA&A Design Ltd.

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Registration
Board

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APPENDIX D

Programme

C712 SPECTRUM HOUSE

HartDixon

PRELIMINARY CONSTRUCTION PROGRAM

Prog Ref: FAA-C712-6100-002

Page 1 of 1

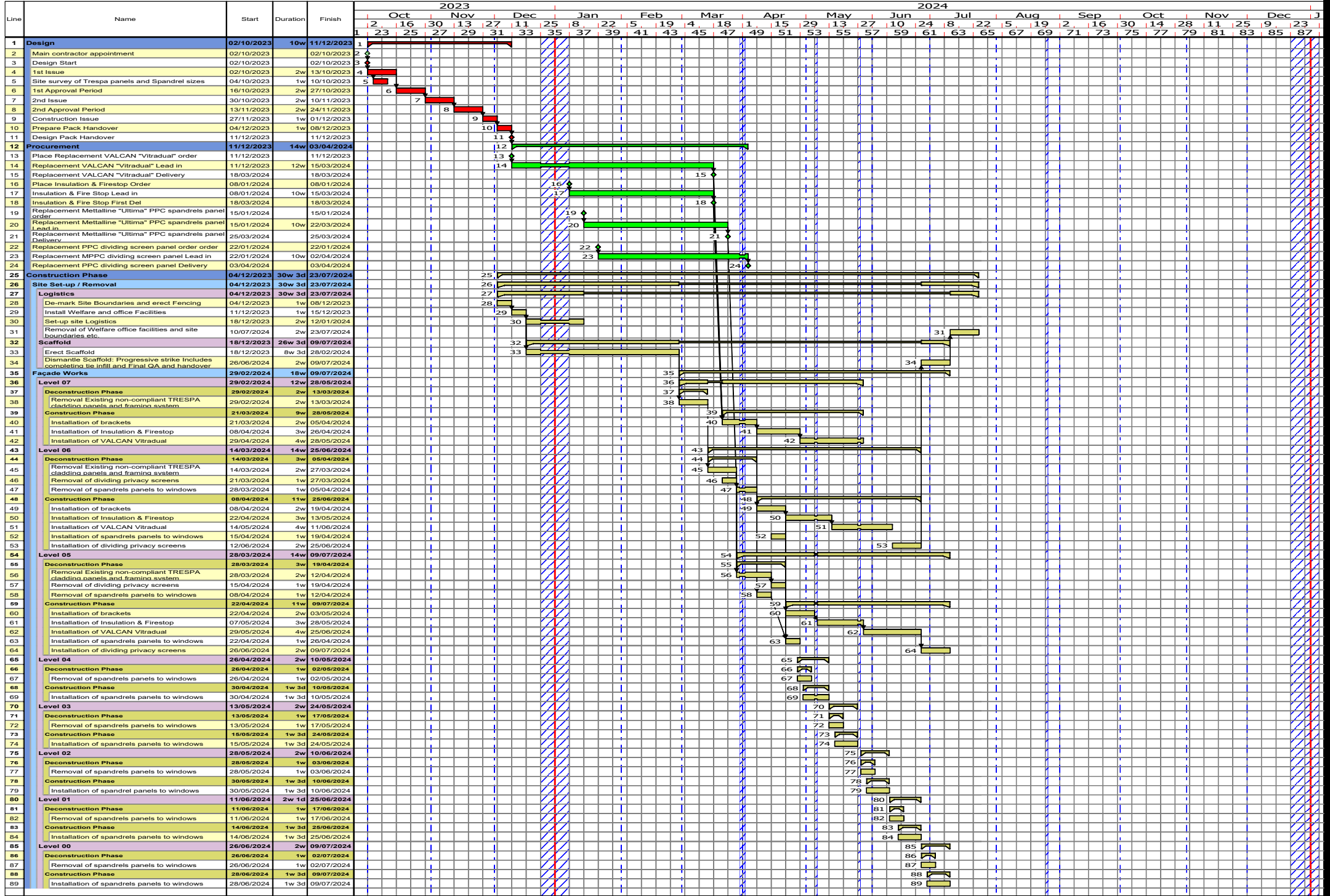
Issue Date: 12/04/2023

Rev No. 01

Rev Notes: For Comments

Rev Date: 13/09/2023

Prepared by: Pawel Zarzycki



Trades Contractor, Procurement Stages, FAA
Design Procurement Installation
Milestone Appearances
Start Milestone Diamond

APPENDIX E

CONSTRUCTION PHASE PLAN

C712 SPECTRUM HOUSE, 22-42 FRESHWATER ROAD RM8 1EH CONSTRUCTION PHASE PLAN

Fleetwood Architectural Aluminium



FAA-C712-5104-001_R01

Fleetwood House,
480 Bath Road,
Slough,
Berkshire,
SL1 6BB

Phone: [REDACTED]

Company Registration No: 588 9052
VAT Registration No: 892 3773 82

C712 SPECTRUM HOUSE, 22-42 FRESHWATER ROAD RM8 1EH

Construction Phase Plan

PACKAGE			
Project:		SPECTRUM HOUSE	
Title:		Construction Phase Plan	
FAA Reference:		FAA-C712-5104-001	
Contract No:		C712	
REVISION HISTORY			
Issue:	Date:	Purpose of Issue:	Signed by:
R00	08/05/2023	Pre-construction issue	
R01	13/09/2023	Logistic Plan added, Project Directory updated.	
R02			
R03			
R04			
R05			

CONSTRUCTION PHASE PLAN

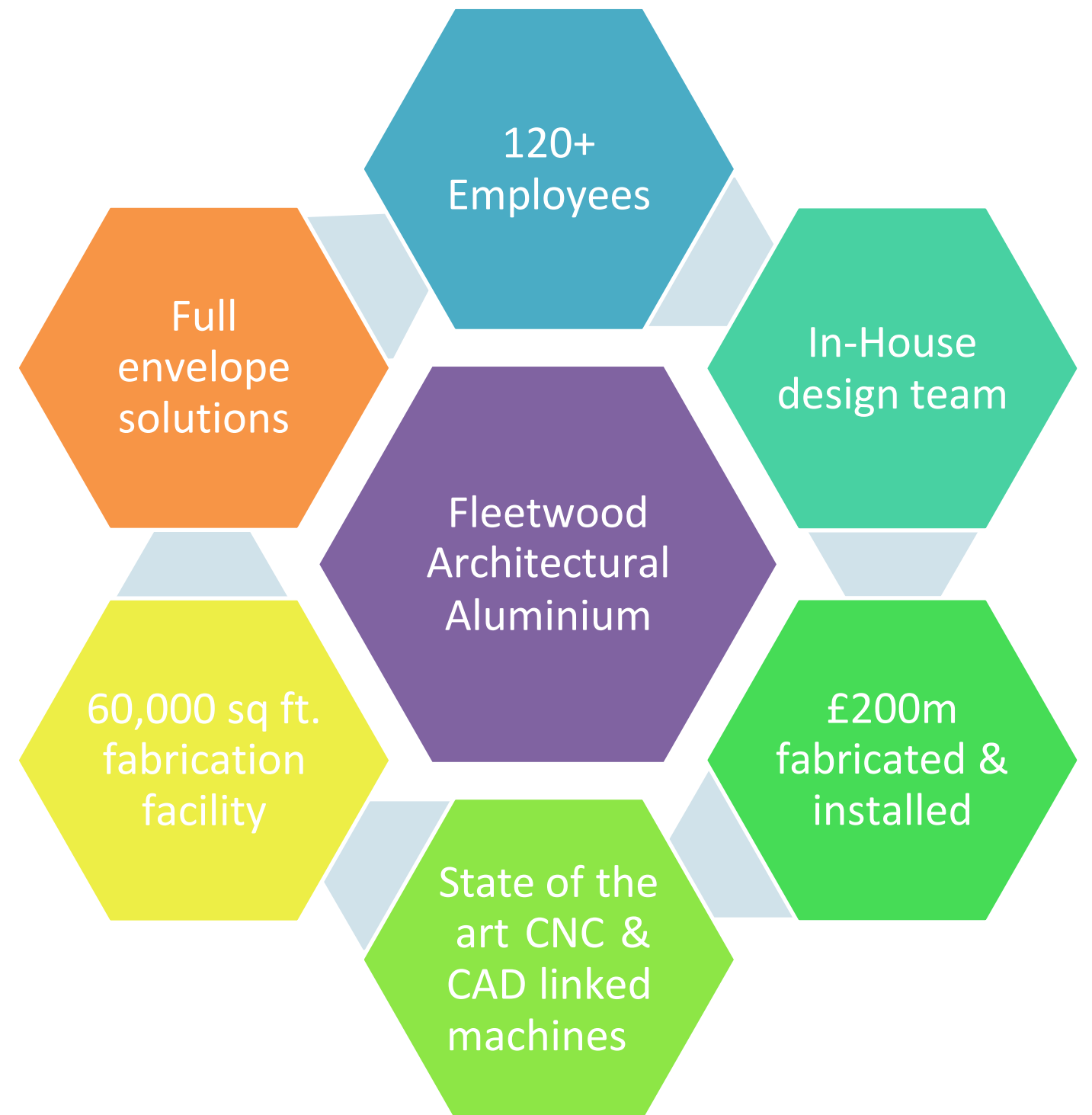
Fleetwood Architectural Aluminium

Content

1. Our Company
2. Our Mission & Values
3. Project Overview & Scope of Works
4. The Project Team
5. Statement of Health and Safety Principles and Objectives for the Project
6. Management of the Project
7. Fire Safety And Management Plan
8. Site Logistics
9. Methodology
10. Programme
11. Risk Register
12. Supply Chain

OUR COMPANY

Fleetwood Architectural Aluminium



OUR MISSION & VALUES

Fleetwood Architectural Aluminium

Our Mission:

To manufacture & fit ethically sourced high quality building envelopes that are delivered on time every time.



Our Vision:

To become a leading international façade contractor, partner & provider of complete building envelopes from our UK headquarters.

Our Values:

- ✓ Safety First
- ✓ A Great Place to Work
- ✓ Champions of Change
- ✓ We Take Responsibility
- ✓ Customers Inspire Us
- ✓ Strive For Excellence

Project Overview & Scope of Works

Fleetwood Architectural Aluminium

3.1 The works are to consist of:

- 4 Site Set-up including necessary Corporate and CDM 2015 related signage
- 5 The provision of welfare facilities including site office & toilet and a laydown areas
- 6 Erection of scaffold
- 7 Removal of existing trespa cladding on level 5-7
- 8 Removal of balcony decking and fittings
- 9 Installation of new cladding system level 5-7
- 10 Installation of EPDM
- 11 Installation of breather membrane
- 12 Installation of fire stops
- 13 Installation of insulation
- 14 Installation of aluminium decking and sub structure
- 15 Replacement of spandrel panels to windows
- 16 Dismantle of Scaffold

Location of the Site

SPECTRUM HOUSE, 22-42 FRESHWATER ROAD RM8 1EH, London



3.2 Duration of Works & anticipated workforce

Proposed Construction Phase: The construction Phase will start on 21st September 2023 for a duration of 31 weeks and the proposed completion date will be 9th May 2024

The project will require the following workforce.

- Management: 2 no. off
- Logistics: 3 no. off
- Scaffold: 6 - 8 no. off
- Façade: 5 - 15 no. off

3.3 Purpose of the CPHSP

This plan is prepared to assist in compliance with the requirements of The Construction (Design and Management) Regulations 2015. It is intended that this will be achieved by providing information on:-

- Health and Safety legislation in the construction industry
- Identified Hazards that may be encountered during the project.
- Assessments made to quantify the risk
- Control measures that require being introduced to minimize the risks.

The Construction Phase Plan is a dynamic document that will change and develop throughout the project. The Plan will be reviewed monthly to ensure that the content reflects the needs of the project. Additionally, the Plan will be reviewed in the light of any unforeseen occurrence. When the Plan has been updated a copy will be submitted to the Client

THE PROJECT TEAM

Fleetwood Architectural Aluminium

4. FAA Project Roles

The Managing Director, [REDACTED] has overall responsibility for all aspects of the Fleetwood Architectural Aluminium. The Contracts Director will report directly to the Managing director from project award through to completion. He will visit the site only upon request.

The Contracts Director, [REDACTED], has overall responsibility for all aspects of the project. Will lead our internal project team from project award through to completion. He will attend all necessary co-ordination meetings arranged by our client. He will visit the site as or when required.

The Project Manager is responsible for the day-to-day running of the project, maintaining progress on programme, site quality control, site Health & Safety, liaison on-site with the Site Manager and his team and other trade contractors. He is responsible to the Operations Manager

The Site Management will be responsible for general supervision on the project or depending upon project size, we may allocate more than one supervisor to deal with specific sections of the building. He will oversee the site installation teams and any sub-contractors and will have responsibility in relation to Health & Safety and the Quality Control procedures for the installation. Site Supervisors are accountable to the Project Manager and will also liaise closely with the site safety advisers. The supervisor will be closely involved in the setting out and running of the installation. Typical Qualifications include – S.M.S.T.S. Certificate, NVQ Level 3 Fenestration and Installation, CPCS Lift Supervisor, CPCS Slinger – Signaler – CPCS Tele-handler Operator, CSCS Site Supervisor's Card, First Aid at Work.

The Commercial Manager is responsible for the preparation of interim applications for payment and final accounts, preparation of cash flow charts, quoting variations, commercial queries and commercially related general duties. He will visit the site as and when required.

The HSEQ Coordinator will carry out safety inspections and audits, produce written safety reports, carry out Toolbox talks, complete accident and incident investigations and reports, carry out risk assessment and method statement reviews and liaise with Client on any health and safety issues.

The Designer Manager is responsible for preparation and distribution of drawings for approval. Design, drawing approvals, and technical matters arising either on-site, or with our suppliers and any sub-contractors He liaises with the operations and the design team. He is also responsible for materials scheduling and producing factory fabrication sheets for production. He will attend all necessary co-ordination meetings arranged by our client. He will visit the site as or when required

-

Project Directory - Core Team Members					
SPECTRUM HOUSE					
Discipline / Company	Address	Team Member / Position	Email	Contact No.	Office No.
Client MAYFAIR WAY					
Project Manager & Employee Agent HartDixon					
Architect GAA Design					
Quantity Surveyor Navigation Management Limited					
Façade Engineer S&CD Engineering					
Fire Engineer BB7					
Principle Designer GAA Design					
Clientside H&S Consultant					
Building Control Bureau Veritas					

Project Directory - Core Team Members			Fleetwood Architectural Aluminium	
C712 SPECTRUM HOUSE, 22-42 FRESHWATER ROAD RM8 1EH			Fleetwood Architectural Aluminium	
Discipline / Company	Address	Team Member / Position	Email	Contact No.
Façade Contractor Fleetwood Architectural Aluminium				
H&S Rep Fleetwood Architectural Aluminium				

Statement of Health and Safety Principles and Objectives for the Project

Fleetwood Architectural Aluminium

5.1 Policy

It is the policy of Fleetwood Architectural Aluminium Ltd that all operations will be carried out paying due regard to all the statutory requirements imposed on them to enable the contract to be undertaken with the provision of appropriate safeguards to prevent members of the public, employees or sub-contractors being exposed to risks to their health and safety. Procedures will be in place to identify principal health and safety hazards likely to be encountered during the construction work and where appropriate measures to be taken against hazards noted. Risk assessments will be prepared by Fleetwood Architectural Aluminium Ltd under the Management of Health and Safety at Work Regulations 1999.

Fleetwood Architectural Aluminium Ltd will take responsibility for the plans, the design and changes due to unforeseeable circumstances and review the plan during the execution of the project.

5.2 Objectives

In accordance with this policy, Fleetwood Architectural Aluminium Ltd Ltd has set the following objectives:

Identifying and committing to eliminate hazards within the workplace, assessing risks related to them and implementing appropriate preventative control measures to reduce their impact.

Developing a system with the aim to prevent work related injury and ill health that could occur within the project

To establish safe working practices for all employees and sub-contractors working on the contract

To develop a high degree of awareness in health and safety and the environment

To provide information and training on health and safety and to encourage employees and sub-contractors to participate in meeting requirements of the legislation to enable the contract to be completed safely

To provide safe access and egress to and from the work site

To ensure the least disruption to local businesses and members of the public as a result of the project

To exclude unauthorized persons from entering the work site

To ensure that no injury or harm to any members of the public

To ensure that no environmental damage occurs

To ensure that manual handling tasks are reduced to the lowest level as reasonably practicable.

To provide operating conditions so that the lowest reasonably practicable noise levels are maintained.

Ensuring tasks given to employees and sub-contractors are within their skills, knowledge and ability to perform.

Ensuring that technical competence is maintained through the provision of refresher training as appropriate.

Complying with all health and safety legal requirements and other requirements

Providing and maintaining safe methods of work and equipment

Promoting awareness of health and safety and of good practice through the effective communication of relevant information to our employees including their individual responsibilities and commitments so that we can achieve our objectives and policies.

5.3 Responsibility

These aims will be achieved within the company's organization and arrangements for the promotion of safety, health, and welfare. As with all operational functions, the company carries out its responsibilities for safety through the directors and Site project team for whom safety continues to be a vital and ongoing part of their responsibilities.

The overall responsibility for the site and its management will be the Principal Contractor. The Site Project Manager will conduct regular briefings on the site progress and key issues. On the first arrival at site allowance must be made for:

Site induction for individuals, which will include "Site Safety Rules".

Mandatory Booking in and out of site (includes lunch and breaks).

Registering workers with appropriate training and competency certificates where necessary (i.e. CSCS/CISRS/CPCS/NPORS/JIB/PASMA/IPAF etc.

Providing inspection and other certificates for equipment and machinery to be used safely on site

Daily/weekly site briefings

Demonstrating how contractors will monitor safety and its duration and issuing copies of these reports to the Site Project Management team

Pre-existing health issues

5.4 Existing Site Information

The site is located in an existing residential area with nursery occupying ground floor. It is considered that the proposed construction work will create additional risks to the safety and welfare of the general public's use of the residential apartments, and the nursery in the area, however through careful planning and the correct safety measures although access will be controlled and restricted in certain areas, safe access to all areas will be maintained at all times. Hoarding will protect the public from access to the site. However, Fleetwood Architectural Aluminium Ltd shall endeavor to minimize all foreseeable risks when operating in the vicinity of the adjacent public highways, through careful control of site traffic, site deliveries, and physical segregation through the use of signage and road traffic barriers as necessary.

Careful planning, implementation, monitoring, and co-operation will minimize the anticipated risks to the public and particularly residents to an acceptable level. Fleetwood Architectural Aluminium Ltd will ensure that provisions are in place to protect residents and the general public at large from hazards evolving from the construction operations. There are no notified planning restrictions, which might affect health and safety. Access to the site will be via the current retail delivery entrance off London Road for vehicles & within the underground parking access routes for Personnel. Careful consideration will be given regarding deliveries and waste collection. Vehicles must not be too large for the local road network. Deliveries and collection will be scheduled to avoid peak travel times.

5.5 Security Arrangements

Site security will be maintained during the construction phase. Fleetwood Architectural Aluminium Ltd will operate within the confines of parking bays & on the scaffold wrapping the building, timber hoarding to the scaffolding within the public accessible areas will form a secure construction site to prevent entry by children, members of the public, trespassers and vandals. Site perimeter to consist of minimum 2 meters high hoarding. When the hoarding meets the building, other fencing, site cabins etc., it must be suitably fixed in order that easy access is prevented. Warning signage to be placed at strategic points on the perimeter fencing. Information signage to be placed at the site entrance. Information signage – reporting procedure, PPE requirements, etc. The Site Manager will ensure that the site perimeter fencing is in good condition to help prevent unauthorized access to the site. The site entrance must be locked using a chain and padlock as a minimum. Ladders will be made unusable, materials locked away, plant secured. The perimeter check will be made twice per working shift, once at the beginning of the shift and once at the end of the shift.

5.6 Site Restrictions & Access

Fleetwood Architectural Aluminium Ltd will liaise with the local residents and businesses prior to any works being undertaken to make them aware of works taking place and address any concerns by these affected parties.

Working hours will be 0800-17:30 Monday-Friday, 0900-1500 Sat; No works will be permitted on Sundays or Bank Holidays

Priority will be given to maintaining continuous safe access with particular attention to the following:-

- Preventing the general public, children and visitors from wandering into designated construction work areas.
- Keeping all areas outside of the work area free from deposits of mud and site debris by regular sweeping as necessary;
- Avoiding pollution of the atmosphere

5.7 Traffic & Delivery Management

Deliveries of materials will be organized to maximize the safety of all personnel. The emergency services, e.g. fire appliances, ambulances, etc. will use the same access routes to the working areas. These routes, particularly the main access road, site operatives parking, and the main entrance to the site will be kept free from obstructions throughout the construction phase.

Fleetwood Architectural Aluminium Ltd will adhere to site rules as follows: Traffic rules apply (No illegal parking,), and store materials as close to the working area as possible. However, Fleetwood Architectural Aluminium Ltd will not at any time present a hazard to pedestrian traffic by obstructing established foot routes. Where work on any footpath is necessary as part of the construction works, pedestrians will be diverted onto alternative safe routes. Materials will be ordered on a 'just in time' basis to minimize the amount of space needed onsite. Deliveries and collections will avoid peak times and therefore will be restricted to the hours of 09:00 – 16:00

5.8 Protection of Surfaces

It is not anticipated that our activities will adversely affect the public highway; this will continue to be monitored and reviewed as necessary.

Management of the Project

Fleetwood Architectural Aluminium

6.1 Responsibilities

Overall responsibility for works on the site lies with Fleetwood Architectural Aluminium Ltd. Day to day control lies with the appointed site project manager, or his designated staff, who will oversee and ensure safe working practices on site. Control access for the site comes under the control of the site manager, and where necessary give instructions to subcontractors to avoid possible conflicts between work activities. However, the Project Manager will have overall control of the project activities. The project manager will organize and coordinate meetings as necessary with the contractors. These meetings will include, but are not limited to:

- Pre-Start Meetings
- Weekly site safety and progress meetings
- Formal and Informal Inspections
- Safety Improvement notices
- Two week look ahead program
- Tool Box Talks
- Formal and informal consultation with the workforce on safety related topics
- The discussion and handling of design related issues with project members

All contractors are to ensure they use the booking in/out procedure and that they ensure the Site Project Manager is aware they have left the site at the end of the day to allow the site manager to secure the project.

6.2 Arrangements for Directing and Coordinating Work

All contractors are to read the site copy of this safety plan and confirm that they have seen and will comply with it. They will be notified of any amendments to the plan will be highlighted to operative's management via the site notice board or a tool box talk session subcontractors working on the site must nominate a 'person in charge' who will liaise with the Site Project Manager on all safety and other management matters. These individuals are responsible for ensuring that their workforces operate in accordance with the safety standards set in this plan and in keeping with their own safe methods of work and Risk Assessments (in addition to health and safety legislation and HSE guidance). Where safety is threatened or compromised by the failure of any workers or others to adhere to this plan, the Site Project Manager is empowered to stop works and/or exclude workers or equipment from the site until a safe system of work can be agreed. The Site Project Manager will conduct regular briefings on the site progress and key issues. On the first arrival at site allowance must be made for:

Site induction for individuals, which will include "Site Safety Rules"

Mandatory Booking in and out of site (includes lunch and breaks)

Registering workers with appropriate training and competency certificates where necessary (i.e. CSCS/CISRS/CPCS/JIB/PASMA/IPAF etc.). Operatives are to note: a random selection of cards will be confirmed against the issuing organization.

Providing inspection and other certificates for equipment and machinery to be used safely on site. • Daily / weekly site briefing

Demonstrating how contractors will monitor safety and its duration and issuing copies of these reports to the Site Project Manager

6.3 Sub-Contractor Selection Process

All sub-contractors involved in this project will be agreed with the Client project management team prior to the commencement of the works. To ensure that a contractor is competent to be appointed to the project they will be required to complete our pre-qualification questionnaire and prior to appointment must provide the following information:

- Health & Safety Policy
- Insurance details
- Management Structure
- Risk, COSHH and site-specific assessments
- Confirmation that they will comply with the Construction Phase Plan
- Confirmation any plant and equipment to be used is properly selected and maintained.
- Confirmation that the operators of plant and equipment are properly trained.
- Evidence of CSCS accreditation
- Training details

Accident/Enforcement details where works are to be sub-contracted to other companies, it is the duty of the sub-contracting company to ensure that the company they are intending to the contract has met the required standards for safety and training as expected by the Client and Principal Contractor.

Each company must have completed the sub-contractor questionnaire and have had this document and any supporting evidence checked and approved by the commercial director. All staff brought on to the site shall be expected to have suitable and sufficient training for the tasks they are performing and should have read and signed up to an approved method statement. Where necessary this should include the provision of translations of documents or an interpreter for workers who have English as a second language. Sub-contractor assessments and safe working procedures should be provided to the principal contractor or their safety Adviser at least 2 weeks in advance of the planned start date to allow time for these assessments to be undertaken. Failure to meet this requirement may lead to a delay in the project and potential financial penalties for the offender. The host sub-contractor must ensure adequate site supervision (defined as Site Supervisors Safety Training Scheme as a standard) and that safety monitoring is in place for the work being performed. They must ensure that they remain responsible for the safe method of work they have implemented and that any changes to this or any other safety document being used on site is alerted to the Principal Contractor.

6.4 Design Information from Specialist Contractors

Any specialist contractors (including electrical) are required to pass details of their designs and design risk assessments through the Principal Contractor, or the Site Project Manager, well in advance of the start of relevant work on the site. Where designs changes need to be made that have a Health and Safety implication, these must then be provided to the Principal Designer for appraisal prior to instigating the changes.

6.5 Plant and Electrical Inspection

All contractors are to supply, maintain, inspect and operate their own equipment and plant. Scaffolds/towers/access systems erected on the site also fall under this category. Copies of statutory inspections are to be handed to the Site Project Manager at the end of each inspection cycle. No contractor is to make use of equipment or plant provided or belonging to any other, without the expressed approval of the Site Project Manager and the appropriate contractor. Contractors are to ensure that electrical equipment and the plant is clearly marked and 'in date' P.A.T. inspection labels attached.

- All portable electrical tools and appliances must be battery operated or 110 volts.
- All 110-volt equipment is to be inspected and PAT certificated by a competent person at suitable intervals as defined in HSG141/107/150 and copies of the test certificates must be available to the Site Project Manager.
- All appliances will be visually inspected prior to use by the user.

Diesel fuels/oils and lubricants are to be brought onto the site (but never into the facility) to support plant running. Flammable oils/lubricants are to be stored in appropriate plastic/metal containers, with protection against spillages and a suitable means of spill clean-up kit available. Any storage tanks are to be bunded.

Records of all inspection certificates are to be kept in the site safety management file.

Contractors are to ensure barriers/exclusion zones are in place

All operatives are to ensure that when it is necessary to leave the site unattended during the construction phase they secure the entrance door to prevent unauthorized entry by others.

6.6 Complaints

A complaints procedure is present within the Principal Contractor's safety management system and shall be available and used whenever a member of the public wishes to raise a complaint. Complaints shall be addressed to:-

Contact: Liaison Officer - TBC *CPP will be updated accordingly, once information is available.*

6.7 Sub-Contractor Selection Process

Legislation and Standard

- Health & Safety Standards
- The Health and Safety at Work Act 1974
- Construction (Design and Management) Regulations 2015
- Management of Health and Safety at Work Regulations 1999
- The Reporting of Injuries, Diseases, and Dangerous Occurrences Regulations 2013
- The Control of Asbestos at Work Regulations 2012
- The Work at Height Regulations 2005
- The Control of Vibration at Work Regulations 2005
- The Control of Noise at Work Regulations 2005
- The Regulatory Reform (Fire Safety) Order 2005
- The Control of Substances Hazardous to Health Regulations 2002 (as amended)
- The Provision and Use of Work Equipment Regulations 1998
- The Lifting Operations and Lifting Equipment Regulations 1998
- The Confined Spaces Regulations 1997
- The Health & Safety (Safety Signs & Signals) 1996
- The Manual Handling Operations Regulations 1992
- The Workplace (Health, Safety, and Welfare) Regulations 1992

- The Personal Protective Equipment at Work Regulations 1992 (as amended)
- The New Roads and Street Works Act 1991
- The Electricity at Work Regulations 1989
- The Health & Safety (First-Aid) Regulations 1981
- The Safety Representatives and Safety Committees Regulations 1977

Environmental Standards

- The Waste Electrical Electronic and Equipment Regulations 2013
- The Hazardous Waste (England and Wales) Regulations 2005
- The Environment Protection Act (Duty of Care) Regulations 1991
- The Environmental Protection Act 1990

Guidance

- GD1 TG20:13 Good Practice Guidance for Tube and Fitting Scaffolding
- GD2 SG4:15 Preventing Falls in Scaffolding Operations
- GN3 HSG47 Avoiding danger from underground services
- GD3 HSG17 Safety in the use of abrasive wheels
- GD4 HSG33 Health and safety in roof work
- GD5 HSG53 Respiratory protective equipment at work
- GD6 HSG85 Electricity at work: Safe working practices
- GD7 HSG150 Health and safety in construction
- GD8 HSG151 Protecting the public: Your next move
- GD9 HSG168 Fire safety in construction
- GD10 Fire Prevention on Construction Sites - JCOP 9th Edition

The Contractors on this project will be required to comply with the requirements of the above legislation and any Site Rules that are introduced to comply with legislation or the client's requirements.

6.8 General Standards

All personnel are expected to comply fully with health and safety law and the associated approved codes of practice. Contractors are, in addition, to be aware of and pay due attention to guidance issued by the Health and Safety Executive as well as that issued by trade bodies and authorities, which constitute industry 'best practice'. Method and policy statements submitted for these works will be reviewed by the Site Project Manager and Safety Adviser to ensure that these standards are met. On such occasions that they fail to meet the standard they will be returned for amendment action.

All contractors are expected to assess all activities that they are associated with for risks and adopt safe methods of work in keeping with the Management of Health and Safety at Work Regulations 1999 and other relevant regulations (as well as the standards and detail set out in this document). In some cases, however, this health and safety plan specifically requires the preparation and submission of site-specific Method Statements in advance of particular work operations. All contractors are to ensure that their employees are aware of these safe working method statements and have been suitably trained and have adequate supervision to ensure that the procedures are followed. Additionally, a signed copy of the controlling documents must be handed to the Site Project Manager, who will ensure all operatives employed on the task have signed the issued documents. Failure to issue the requested signed documents may result in a delay and subsequent financial implications.

6.9 Training Standards

General construction works: All work is to be carried by a competent person with adequate supervision to industry standards approved by CITB, CPCS, CSCS, PASMA, IPAF cards (not pass slips) and to meet requirements of the designated work.

Abrasive cutting/grinding: Certificate of competence issued by employer or equipment supplier. Validity routinely 3 years. Certificate of training and appointment to mount abrasive wheels. (valid 3 years)

Electrical works: All electrical work is to be conducted under the supervision of a competent person to IEE standards and is to be tested and inspected to the standards set in the IEE Wiring Regulations on completion

Training certificates for the duration of the time employed on the project are required prior to contractor’s operatives arriving on site. Operatives appointed to operate particular plant and equipment and to undertake certain specific forms of work on this project. Copies of the following certificates must be submitted to the principal contractor before work begins. (The list is far from exhaustive and other relevant training competencies should be included)

6.10 Sub-Contractor Selection Process

Information and Training for those on site

On first arrival at the site all workers will be given a short briefing which will include:

Site details, address and telephone number, location of the site telephone (for emergencies)

Potential interface with members of the staff, public and project residents.

Safety responsibilities

Site security and booking in/out arrangements. This will enable Site Management to control and restrict vandalism, theft, injury to third parties, and potential damage to the works. Therefore, any observations to breaches in security must be highlighted to Site Management. It is essential that all site personnel, visiting or working, sign in & out of site as in the event of an emergency the sign in register will be used to check that everyone has exited the building.

Site layout and nature of the works in progress/intended. (3rd party interface)

Transport Management Plan

Entry into building

Awareness of other contractors involved onsite.

Asbestos Discovery (as applicable)

Noise, vibration, and dust generated as a result of the work

Preventing access to the work areas by the unauthorized persons.

Site rules

Welfare and first aid facilities – locations, name(s) of first aiders / Emergency First Aiders / Appointed Person

Fire and emergency procedures including:

Escape routes

Assembly/Muster Points

Location of fire points and types of fire extinguishers

The names of those receiving induction training are to be recorded in the site records. No person will be allowed access to the site until they have received this induction briefing, or in the case of a visitor unless they are escorted at all times by a fully inducted person.

6.11 Site Rules and Monitoring Arrangements

Safety standards will be monitored by the Principal Contractor through:

A continuous inspection process by the Site Project Manager is in force. A checklist for these inspections is included with the site safety records. These inspections will include all contractors working on the site and a report of all actions required will be given to the contractor’s foremen with instructions to rectify non-conformance in a timely manner.

To carry out sample and grab audits on the H&S and CDM process.

Once per week the Site Project Manager or appointed representative will inspect fire equipment, first aid equipment (and replenish if necessary), registers and site documentation. This inspection will be recorded on the designated form in the SMS file and when appropriate in the site diary.

Monthly by the FAA health & safety representative, who will carry out an inspection of the site and produce a written safety inspection report hierarchical level of inspection of the site and produce a written safety inspection report for distribution.

Inspections required under the Construction (Design & Management) Regulations 2015 will be carried out the principal contractor’s safety manager and a formal report will be provided and be prioritized for remedial action/recommendations and filed with the site management system. This will be checked for closed out actions/progress on the next site inspection visit. This inspection regime will include sub-contractors. Additionally, contractors are required to audit/inspect their own works and equipment. Copies of such are to be handed to the Site Project Manager for record purposes. The scheduled progress meeting chaired by the senior Principal Contractor representative will as part of agenda discuss health and safety reports, and relevant discussions between the Client, the Principal Contractor and members of the Design team for issues affecting the project. Ensuring the entire aforementioned have feedback and closed down loop in line with the safety Adviser’s safety site inspection form. The Site Project Manager is to ensure client and Principal Designer are briefed accordingly on identified issues for discussion. Furthermore, the Site Project Manager is to ensure the following is incorporated into the inspection regime:

- Consideration of likely hazards and the reduction of risk wherever possible at all stages of the project;
- The introduction of the ‘Risk / Hazards’ of the week notice board giving due consideration to Regulation 10 of the Management of Health & Safety at Work Regulations 1999.
- Regular review of procedures and the Health and Safety Plan to ensure the correct execution of the project;
- Ensuring the regular site audits results are communicated to the workforce;
- Action Plans that target specific areas of risk identified by the HSE (e.g. falls from height, traffic impact accidents), identify methodology to reduce/ eliminate the most likely types of accident; identify a strategy for health; implement strategies for ‘selling’ the above to the workforce;
- Induction and monitoring of adherence to the minimum standard requirements expected for particular disciplines as identified in the Health and Safety Plan.

6.12 Activities with Risks to Health and Safety

The following areas have been identified as having potential risks. Risk Assessment sheets will be provided for these and will be added to the Health & Safety folder on the site.

Use of and Contact with Power Tools

The hazards are from contact with electrical conductors, contact with the revolving tools and HAVS. The risk is low, the site power must be 110 Volt and the operatives should be trained in the proper use of tools. The tools must be visually inspected before first use and receive a periodic PAT test as required by the PUWER and Electricity at Works regulations. Individual risk assessments contain information on exposure limits for vibrating tools such as drills and breakers. It is not anticipated that HAVS will be an issue on this project, however, should any operatives suffer any form of numbness or pain associated with the use of vibrating tools they must take suitable breaks from use and the work activity should be shared.

Working at Height

External works will include the following:

- Removal of existing rain screen cladding, breather membrane
- Installation of replacement, rain screen cladding, EPDM, breather membrane, fire stopping, insulation, new fittings and sub structure.
- These works shall be performed from fixed scaffolding supplied and constructed by the designated contractor. When working from non-fixed systems the wind speed should be measured on a regular basis throughout the working day to ensure that systems are not being used outside of the limits set by the manufacturer. Any platform that you need to work off must be at least 600mm wide, which is 3 scaffold boards wide. Scaffold boards will need supporting by transoms or trestles at a minimum of 1200mm Centre’s.

Tube & Fitting or Modular Scaffolds

Scaffolding shall only be erected and dismantled by competent persons with the appropriate and recognized certification i.e. The Construction Industry Scaffolders Record Scheme – CISRS card scheme. The scaffold structure is to be designed in accordance with the requirements of BS EN12811-1 & TG20:13. A conformance sheet or scaffold design is to be provided by the appointed scaffolding contractor and maintained on site. Brick guards to be kept in position on scaffold lifts.

All scaffolding shall be supplied, inspected and erected in accordance with the: The European Standard BS EN12811-1 TG20:13 The Work at Height Regulations 2005 Construction (Design and Management) Regulations 2015 The Management of Health & Safety Regulations 1999 The Provision and Use of Work Equipment Regulations 1998 NASC SG4:15 Preventing Falls in Scaffolding Operations Scafftags are to be fitted to all scaffold structures and completed/amended/inspected by a competent person as required by the system. Fixed scaffolds are to have an in date Scafftag fixed at the main access point at all times and ladders are to be removed/boarded off at the end of each shift to prevent access in the event of a member of the public gaining access to the site. If any non-conformances are identified during the inspections, then works must cease immediately until rectified and approved by the FAA Ltd supervisor.

Mobile Tower scaffolds must only be erected, altered and dismantled by trained competent person/s whose names have been submitted to the Chrome Services Ltd person in charge and in accordance with: The manufacturers/suppliers erection procedure, Provision and Use of Work Equipment Regulations 1998 HSE – Construction Information Sheet No 10 (Revision 4) The Work at Height Regulations 2005 Ladders are a means of access and are not for working off unless detailed within your Safe System of Work which has been reviewed by Chrome Services Ltd. Stepladders may only be used to work off following receipt of a risk assessment. Ladders and Stepladders must be clearly marked as Industrial Grade.

Manual Handling

Whether the transport of materials to the work areas is undertaken by the operatives under their own Method Statements and Risk Assessments, or under the direction of the Principal Contractor, care must be taken to minimize the inherent risks. Deliveries shall be dropped as close to the working area as is possible and when there is a need to handle items long distance a suitable lifting aid (trolley etc.) should be used. Where manual handling cannot be avoided, heavy items shall be either broken down into smaller loads or handled as a group lift. All risk assessments and method statements provided by site contractors must identify heavy items used and how they are to be handled. Manual Handling HS(G) 149 ‘Backs for the Future’ must be followed at all times by all contractors. The site Tele-handler will maneuver materials and equipment from the site compound to the required work zone. Materials and equipment will generally be moved around the site to the place of work via, board carriers, pump trucks, pallet trucks or similar. Heavy items (structural steels)

COSHH

The hazard is harm to body tissue and/or body organs from the use of hazardous chemicals. The use of hazardous materials and substances on this site is not permitted without the principal contractor having had sight of a valid COSHH assessment for the product as per the requirements of the Control of Substances Hazardous to Health Regulations 2002 (as Amended). Each individual contractor is responsible for creating these documents and ensuring their staff are protected and not putting other trades at risk when chemicals are in use. If any product is needed on-site that does not already have a COSHH assessment, then it must be brought to the attention of the Health and Safety manager so that an assessment can be completed. The Site Project Manager is to send a copy of any assessment, upon request, to the Principal Designer, and inform the Principal Designer if any material or substance to be used is listed under the 'Approved Supply List' or 'Approved Carriage List' of The Chemicals (Hazard, Information and Packaging for Supply)(Amendment) Regulations 2002 or is comparable in hazard. COSHH Assessments of manufacturer’s safety data sheets are to be included with the notification.

Live Services

Before starting work the position of all existing services shall be ascertained as far as possible. Extreme care will be taken, at all times, not to disturb any existing services. The Site Project Manager is to scrutinize all available plans along with the information provided by the client who is responsible for their maintenance. Any and all unidentified cables and pipes are to be treated as live until it is confirmed otherwise. A qualified electrician will isolate and make safe any electrical works before commencing work.

Noise, Vibration, and Dust

Noise Emissions generated as a result of the work shall be restricted to between 0800-17:30 Monday-Friday, 0900-1500 Sat. Works outside these hours are by prior arrangement with the principal contractor and client’s agent. Where a specific issue is raised by local residents/businesses that will require changes to these working hours it shall be acted upon as soon as is possible. In all cases, noise will be kept to a minimum with hearing protection used as deemed necessary in compliance with current regulations. Contractors must continually assess the level of noise and

vibration that operations are creating and implement measures that keep levels within acceptable limits, not only for workers on site but for others who may be affected by the works. There will be a noise assessment detailing all tools found to be 85dB (A) and over available in the site health and safety folder.

Vibration

Vibration producing tools will be subject to a HAVS assessment to identify the safe working times.

A(8) Daily Exposure Levels		Control of Vibration at Work Regulations 2005
Exposure Action Value	2.5 m/s ²	
Exposure Limit Value	5 m/s ²	
Exposure Action Value	0.5 m/s ²	
Exposure Limit Value	1.15 m/s ²	

Fleetwood Architectural Ltd will ensure that workers operate equipment within the recommended guidelines. Information is provided on the site office notice boards.

Dust

Dust will be minimized by wetting down or extraction systems as applicable to the type of tool and activity being carried out. Good housekeeping principles will be followed and ensuring that no buildup of waste materials/debris is allowed to occur. Appropriate respiratory protection will be available i.e. FFP2 & FFP3.

Hot Works

Without exception, all works that generate heat or sparks (abrasive cutting) must be sanctioned by the Site Project Manager and a Hot Works Permit raised by the designated Site Project Manager or the site manager and kept in the Safety Management File. Additionally, a fire extinguisher and a fire watcher must be provided by the sub-contractor. Site Management is to ensure the designated operative knows how the extinguisher works and what its limitations are.

Biological Hazards

Leptospirosis (Weil's disease) from rat urine is a possibility, therefore, waste will be well managed and not permitted to build up. Food waste will be properly disposed of so as not to attract rats to the site. As a precaution, all waste must be handled using gloves. Adequate washing facilities will be available on-site.

Spills

All on-site water sources shall be regularly checked to ensure that they are not being left running and that they are not leaking. Construction water sources shall be kept away from electrical systems when they are fitted on the site and any spillages shall be cleaned up as soon as they are noted/generated. Spill kits will be made available on-site to deal with any accidental spillage of chemicals.

Exposure to UV Radiation

The site rules 'Long trousers to be worn at all times' will be enforced for the duration of the project. Workers will be advised of the dangers and health risks of working in the sun at induction and via Tool Box Talks. Contractors affected by sunscreen exposure to UV radiation (from the sun) will be advised to provide creams/lotions to their workforce with a sun protection factor (SPF) rating of 15 or more.

Control of Lifting Operations

All plant and equipment brought onto site must be accompanied by all relevant certification and retained for the currency of the work operations. Copies of the weekly inspections are to be made available to Fleetwood

Architectural Ltd as soon as practicable. Training certification for all equipment operators must also be produced and logged in the site appointed persons register. Lifting operations involving lifting equipment:

- Must be planned properly.
- Use people who are sufficiently competent.
- Supervised appropriately.
- Carried out in a safe manner.

6.13 Safe Working Procedures









Method Statements and Risk Assessments

Method statements and Risk assessments will be required from the subcontractors prior to them commencing on site. The site health & safety folder will contain the significant risks assessments and method statements provided by the subcontractor that are generally applicable to the work being undertaken on this project, together with procedures and policies that should be followed. The Principal Designer will have highlighted known significant risks to the contractors via the Pre-Construction Information. For high-risk activities, a site-specific method statement is required, which will be agreed before the work can commence. For routine site operations, these site rules should be observed together with any relevant guidance issued by the HSE.

Personal Protective Equipment Requirements

In accordance with the Personal Protective Equipment at Work Regulations 1992, risk assessments have been carried out, and, as a result, the following policy will be adopted: 5 point PPE will be mandatory at all times on the project site, Safety Boots, safety glasses, hi-vis vests, gloves, hard hats, will be provided and worn as set out by the specific work activities by all site operatives and visitors. The site manager will be responsible for enforcing the wearing of all necessary PPE.

Insert photos of PPE & EN numbers

Personal Protection Equipment (P.P.E.)							
							
Safety Boots	Hard Hat + Chin Strap	Safety Gloves	Hearing Protection	Respiratory Protection	Eye Protection	Eye Protection	'Hi Vis' Vest-Jacket
EN345	EN397	Cut level 3	SNR 30	FFP3	EN166 1.F	EN166 1.B	EN471 Class 2
At all times	At all times	At all times	When using power tools	When cutting, sawing, drilling into concrete	At All Times	When cutting, sawing, drilling	At All times
Additional P.P.E.							

6.14 Site Health & Safety File

This procedure specifies the method by which documentation and data used to demonstrate conformance to the Quality, H&S and Environmental Management on site.

All documents and forms including the Construction Phase Plan are kept in the H&S file and controlled by the site manager/Supervisor

The H&S file index has a list of sections for all the forms to be kept as Follows.

- 5.1.01 Method Statements
- 5.1.02 Risk Assessments
- 5.1.03 COSHH Assessments
- 5.1.04 Induction Forms & Training
- 5.1.05 Visitor Inductions
- 5.1.06 Toolbox Talks
- 5.1.07 Daily Briefings
- 5.1.08 PUWER
- 5.1.09 LOLER
- 5.1.10 PAT Testing
- 5.1.11 Harness Registers
- 5.1.12 Scaffold Registers
- 5.1.13 Plant Registers
- 5.1.14 PPE Registers
- 5.1.15 Work Permits
- 5.1.16 HAV's register
- 5.1.17 Site Inspections
- 5.1.18 Storage Inspections
- 5.1.19 Accidents & Near Miss reports

The H&S file will be audited monthly by the HSEQ Manager, and any findings will be recorded on 1123-HS-Form site audit.

On completion of the project the H&S file will be archived electronically on SharePoint (FAA Document control platform) for 5 years.

FIRE SAFETY AND MANAGEMENT PLAN

Fleetwood Architectural Aluminium

Developed for: Fleetwood Architectural Aluminium Ltd [Principal Contractor]
Duty holders: Site management, operatives, sub-contractors and visitors. [All on site]

7.1 Introduction

The Fire Safety and Management Plan seeks to prevent fire as far as reasonably practicable by the introduction of suitable preventative measures and firefighting facilities where the outbreak of fire occurs in spite of avoidance controls in place.

7.2 The Plan addresses risk [the likelihood of fire occurring] and observes:

The Regulatory Reform [Fire Safety] Act 2005
The Joint Code of Practice for the Prevention of Fire on Construction Sites 2012
The Management of Health and Safety at Work Regulations 1998
The Principal Contractor has overall responsibility for on-site safety management with specific reference to managing fire safety on site and discharges this duty via the site manager.

Organization and Responsibilities – Prevention

- All on site will undergo Site Inductions, which includes an awareness of this Plan.
- All operatives to have received suitable training in fire prevention, the causes of fire and individual responsibilities in the event of fire.
- The separation of sources of ignition and flammable substances. The identification of such sources and suitable controls. Conducting COSHH Assessments
- Appropriate security arrangements to prevent unauthorized site entries.
- The emergency services will be alerted to the site development and activities and a point of contact will be established
- Where hot works are unavoidable, a Hot Works Permit system will be set up. The Site Manager will manage this system and assume the role of Permit Issuer. The sub-contractor responsible person will assume the role of recipient. After such work has finished a reinspection will take place one hour after completion to ensure there is no prospect of residual fire. The Hot Work Permit is appended to this Plan. An awareness of this procedure will take place during Site Inductions.
- Sub-contractors will provide full details of their proposals to avoid causing fire on site through Risk Assessments and Method Statements.
- All plant, machinery and equipment that employs the use of electricity must observe the Electricity at Work Regulations 1989 through regular and sufficient testing. Such equipment will be the subject of random inspections. No faulty or untested equipment usage will be permitted on site. Testing procedures apply to Fixed Installations as well – Site Management responsibility.
- Designated smoking areas will be in place – external and suitably distanced from buildings, plant and welfare facility.

Organization and Responsibilities – Fire Management

- **An alarm system will be set up on site, to include locations throughout the scaffold with special attention the working lifts. All fire points will have radio activated alarms to sound the alarm in case of fire.**
- **Fire extinguishers [Water/Foam and CO2] will be set up at each fire point in addition to the welfare area, to include locations throughout the scaffold with special attention the working lifts. Extinguishers will have a current service record.**
- **Specified operatives will undergo specific training in use of fire extinguishers.**
- Suitable escape routes will be set up [see drawing overleaf]. Directional signage will be introduced in the building where escape routes are not clearly identified. These routes will be kept clear at all times.
- An Assembly Point will be set up at the bottom of the site [adjacent to the entrance] and all those on site will immediately proceed to this location when the alarm sounds. The Assembly Point will have prominent signage. Escape routes to the Assembly Point will be kept clear at all times.
- The Site Manager has the duty of summoning the emergency services in cooperation with the party discovering the fire. [Mobile phone/land line]
- The Site Manager has an additional responsibility of undertaking the role of Incident Controller. This person has overall responsibility for managing emergency procedures and issuing appropriate directives on site. The Site Manager will appoint Fire Marshals and Deputies to assist with the evacuation of personnel from buildings. The Incident Controller must ensure that a Deputy is nominated in the event that he is off site.
- Fire Marshals have a primary duty to evacuate the area for which they have responsibility in the event that the fire alarm is sounded. They must then report to the Incident Controller at the Assembly Point. Fire Marshals must ensure that they also have a Deputy in the event of their absence
- The Incident Controller, Deputy, Fire Marshals and Deputies must have all received suitable training to ensure that they are competent to discharge their respective duties, satisfactorily
- All on site will be instructed to fight the fire without taking risks if they have been suitably trained in the use of fire extinguishers.
- The Incident Controller will address all at the Assembly Point and establish any problems or incidents associated with the evacuation.
- Fire Drills will be carried out as necessary – Site Manager responsibility
- The site will have temporary lighting installed as necessary
- All operatives are charged with a responsibility to report all faults associated with the fire management and safety system to the Incident Controller
- Management systems and facilities will be regularly checked by site management
- The site will be suitably fenced off with security boards or security fencing to encapsulate the site and its boundaries Warning signage will be on display in all areas.
- Hosts will have full responsibility for their visitors and will be instructed not to let them walk around the site unaccompanied unless they are fully aware of procedures, are aware of the site and are authorised.
- Sources of ignition will be controlled – all drilling and cutting activities which produce sparks will be the subject of Hot Works Permits. Flammable substances will be maintained at minimum levels – Extremely and Highly Flammable substances will be kept in flame proof containers whilst not in use.
- **Skips containing combustible materials will be fitted with steel lids and position away from the building and welfare areas.**

7.3 Procedure to Notify Resident / commercial.

Existing Emergency Procedure

The Site has a mixed evacuation strategy with the residential blocks being stay put / defend in place and the retail and ancillary areas being phased evacuation.

The Fire Assembly point for FAA operatives working on the SPECTRUM HOUSE, 22-42 FRESHWATER ROAD RM8 1EH project is yet to be confirmed.

A procedure must be agreed and finalized in the case of a fire emergency within FAA designated working and welfare area, of notification to SPECTRUM HOUSE occupants and ensuring SPECTRUM HOUSE alarm system is activated – CPP will be updated accordingly, once information is available.

Site Logistics

Fleetwood Architectural Aluminium

8.1 The Project

Location: SPECTRUM HOUSE, 70 Sackville Road, 22-42 FRESHWATER ROAD RM8 1EH-on-Sea, TN39 3JE
Local Authority: Barking And Dagenham Council
Type of Road: An access for local amenities, residential and commercial.
Road Features: No special road features
Road Operator: Barking And Dagenham Council
Condition Survey: A full condition survey of the existing public footpaths, roadways and street furniture will be undertaken prior to the Project commencement date, a copy of which will be available to Barking And Dagenham Council.
Access Requirements: Provides access to local amenities, residential and commercial
Level Surface: The road is a flat level surface and no real gradients, however the access road to the deliveries are via a ramp, this will cause no significant issues.
Loading Zone: The area of the loading zone will be via loading or unloading from the road.
Physical Structures: There will be no physical structures required on the road

8.2 Traffic Routing

Traffic within the 22-42 FRESHWATER ROAD RM8 1EH area is already heavy, it is understood how sensitive this will be. With the added inclusion of narrow streets and local amenities our traffic management strategy has to be fully integrated within the local environment.

Our traffic routes to and from the site have been carefully reviewed in line Barking And Dagenham Council local traffic requirement, local residents’ concerns and the F.O.R.S scheme as a minimum standard of Silver and above. We will integrate this strategy within our own supply chain, so they are fully aware of our requirements, the local environment and residents and the expectation that is upon this development.

The proposed strategy for bringing in deliveries is seen on the next page via the arrows on the location map.

8.2 Local Traffic Requirements

All deliveries will go straight into the site ready for offloading.

Deliveries

All delivery arrangements must be made 48hrs before the delivery dates and submitted for the approval of the management.

Protection of the Public & Road Users

Warning signs will be displayed in prominent positions around the site and work area indicating “CAUTION: CONSTRUCTION SITE TRAFFIC”.
All vehicular traffic either leaving or entering the site will be under the supervision of a banksman and must take due care and regard to all other road users and pedestrians and cyclists, all egressing vehicles will leave the site

in a forward direction as far as reasonably possible, and should a lorry be required to reverse from the site this will under the following conditions:

One Banksman will enter the road when safe at a short distance (and clearly visible to traffic approaching from the blind bend), to temporarily request oncoming traffic, pedestrians or cyclists to stop while the vehicular movement is made. He will follow the vehicle all the way down unloading area not to let lorries give any harm to the buildings and to the cars in within the area.

Should there be a requirement for emergency vehicular access, these vehicles will be given priority right of way either on or off site. A 10mph speed limit will be enforced throughout the site and maintained until fully out of the site boundaries and on the public Highway where national and local speed limits will be observed. Lorry movements outside of the hours stated in section 1 will be restricted to ‘Abnormal Loads’ for items such as heavy / oversized plant.

Deliveries will be from 09:00 until 16:00. No delivery will be accepted outside of these hours and/ or to offload on the public and AT NO TIME will delivery vehicles be parked up on the local streets waiting to enter the site.

8.3 Vehicle Movement

The following vehicle movements are assumed for the purpose for this document, these will be daily vehicle movements.

During the above construction, our team will liaise with other contractors in the vicinity of the site to maximize the potential to for consolidation and to minimize traffic impacts to the local area.

Our supply chain will be fully versed with all our requirements and documents we produce, this will be incorporated within their individual contracts.

8.4 Operatives and Visitors

Visitors will be advised that there are to use the public parking available.

Operatives will be encouraged to use public transport or cycle, where facilities will be made available for their bikes. There are stations nearby which for which to use. Buses are also available.

Visitors to the project will be encouraged to come via public transport and it will be actively enforced with all contractors, consultants and any other such person wishing to come to the project.

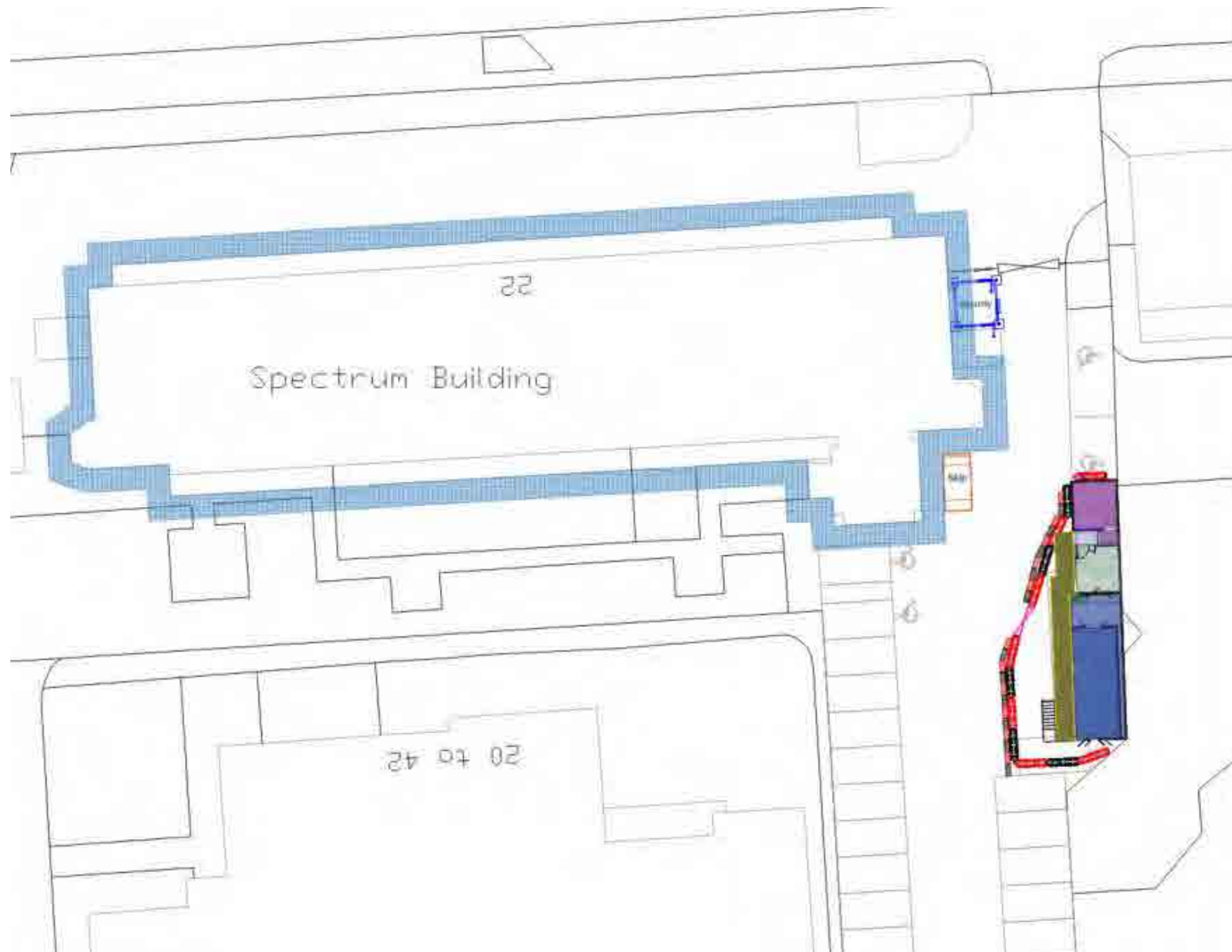
There will be a small allowance of bicycles to be stored on site, as a small cycle stand will be located within the site compound.

8.3 Welfare

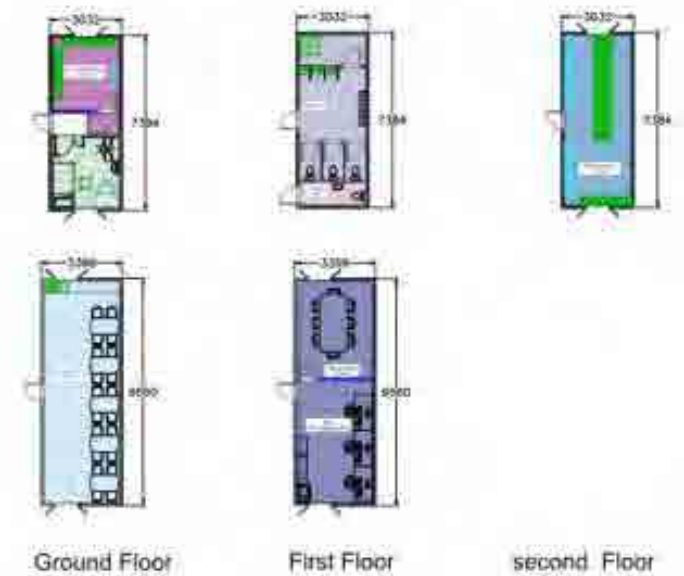
For Site Welfare see below Site set up plan.

SITE SET-UP PLAN

Fleetwood Architectural Aluminium



Office & welfare



METHODOLOGY

Fleetwood Architectural Aluminium

9.1 Induction, Information & Communication

All persons working on site must complete a full Site Induction by Fleetwood Architectural Aluminium. These are held daily at 08:00 sharp.

All Operatives must attend Daily Activity and Task Briefings each morning prior to starting works. Our Project Manager (PM) will deliver briefings and all operatives must sign the Daily Briefing Register (see Appendix section).
No one will be permitted to work unless they have completed the above.

HSE Toolbox Talks will be delivered Weekly - all operatives must attend and sign the Attendance Sheet.

Site Working Hours: 07:30 – 18:00 Mon - Saturday









9.2 Training & Competency

Fleetwood Architectural Aluminium operates a system where all directly employed, self-employed and sub-contract staff and operatives must have the appropriate Construction Skills Register Card (CSR, CSCS and SSMTS). These must be trade/skill specific min Blue Skilled Card for installers.

NO PAPER CERTIFICATES / TOUCHSCREEN TEST RESULTS WILL BE ACCEPTED AS SUBSTITUTE FOR VALID CARD.

- Additionally, only authorized/trained persons will operate the plant and equipment. CPCS, IPAF and PASMA training will be required. Slings / signalers will have CPCS slinger / signaler qualification or acceptable equivalent.
- Our Site Managers will deliver weekly Toolbox Talks and record topics discussed and names of attendees.
- For Safety Critical Works (MEWP operations), all operatives will be required to provide evidence of being medically fit.

9.3 Personal Protection Equipment

Personal Protection Equipment (P.P.E.)							
							
Safety Boots	Hard Hat + Chin Strap	Safety Gloves	Hearing Protection	Respiratory Protection	Eye Protection	Eye Protection	'Hi Vis' Vest-Jacket
EN345	EN397	Cut level 3	SNR 30	FFP3	EN166 1.F	EN166 1.B	EN471 Class 2
At all times	At all times	At all times	When using power tools	When cutting, sawing, drilling into concrete	At All Times	When cutting, sawing, drilling	At All times
Additional P.P.E.							

PPE for all operatives and supervision onsite will be:

1. Fleetwood Architectural Aluminium - Color coded hard-hats must be worn at all times:
2. Safety Boots used on site will comply with Safety Footwear Standards: EN ISO 20345:2007. Also, no Rig boots are permitted, and all safety boots must be lead with ankle support
3. High Visibility Clothing will comply with British Standards: BS EN 471.
4. Minimum Grade 3 cut-resistant gloves to be worn. Grade 5 where risk of extremely sharp or burred edges.
Gloves to prevent hands from substances chemicals will comply with European Standard EN37, Gloves to protect hands from wet work will comply with European Standards EN374-2, Gloves to protect hands from mechanical risks to comply with EN388:2004
Standard EN388:2004 – Gloves giving protection from mechanical risks will provide protection in respect of physical and mechanical aggressions caused by abrasion, blade cut puncture and tearing.
5. Safety Glasses will comply with British Standards EN166:2001.
6. Dust masks will be CE marked and will comply with European Standards EN 149, and be class FFP3 as minimum and face fit test
7. Ear Defenders EN 352-1 to be used where risk of exposure > 80dBA. Must have minimum SNR value of 30.
8. Safety Harnesses and Lanyards to BS EN 365:2004.

9.4 Covid-19 Current guidance

At Present FAA operation are carried out without any restriction based on Covid-19 Guidance.

FAA guidance will continue to be reviewed based on current Government guidelines.

9.5 Brief Outline of Works

- Removal of existing rain screen cladding & backing structure, spandrel panels to windows and timber decking and balcony dividing screens
- Installation of new cladding system, spandrel panels to windows and dividing screens.

9.6 Storage

Storage of materials will be in a secure location on-site to be agreed with the client. To reduce the risks of manual handling, materials will be distributed as close as possible to the working areas by mechanical means if possible.

Storage of vulnerable materials will be in a secured lock-up storage container.

9.7 General

All deliveries to site will be arranged in full accordance with the Health and Safety Plan and Logistics plan. A dedicated **Fleetwood Architectural Aluminium Logistics team** will control and manage all delivery and material distribution operations based on the Fleetwood Architectural Aluminium approved logistics plan.

The management of all logistics and installation operations will ensure the avoidance of any significant disruption or disturbance onsite; logistics operations will be actively monitored on an on-going basis by the Fleetwood Architectural Aluminium site management team.

All deliveries to be booked at least 24 hours in advance, delivery times to be strictly adhered to.

Vehicles direct to site which will be supervised and directed onto the site delivery unloading area(s) which are outside of the proposed site boundary, as a competent, trained Traffic Marshals must be present at all times and notices displayed notify the general public of the dedicated loading / unloading zone.

Upon arrival of the Heavy Goods Vehicle (HGV) to site, this will be communicated to Fleetwood Architectural Aluminium supervisors that will advise the logistics team. The HGV will be banked through site by Fleetwood Architectural Aluminium until their destination.

HGV will be opened, and a visual inspection will be made to ensure all load is still intact and correctly stored. If the load has moved or it is unstable, Fleetwood Architectural Aluminium supervisor should be contacted (no unloading should happen in this situation).

The maximum allowable vehicle size will be confirmed subject to swept path analysis.

Deliveries are restricted to the hours of 9am to 4pm Monday – Friday.

Both delivery of materials and the installation of systems should not result in significant noise levels (85dB maximum level) so no time restrictions should apply.

9.8 Temporary Works

Fleetwood Architectural Aluminium will be responsible for all temporary works calculations and all necessary temp works need to be implemented.

For the use of our scaffold, we will need the ground floor slab to take the loads of this items. We may be required to use propping and additional support in the areas above underground carpark, any podiums and roofs to provide additional support.

9.9 Site Set Up

Have included for 1No site office, 1No storage container, 1No toilet block, 1No drying room and 1No canteen.

9.10 Offloading & distribution

Primary offloading can be done via Fleetwood Architectural Aluminium forklift, materials will then be moved to designated storage areas.

Small or light deliveries will be safely offloaded and handballed to the storage areas. Manual Handling training provided and regular toolbox talks. Use of safe lifting techniques. Max allowable lift per person = 25kg. Where the weight or size of any item exceeds 25kg or is of irregular size/shape, the load will be shared amongst several operatives.

9.11 Plant & equipment

Materials Hoist

Our general access strategy is to erect hoists that will be used to transport materials vertically to the required floors.

Standing Scaffold

All standing scaffolds will be assembled and used all in accordance with the manufacturer's product data sheet. Inspected and dismantled by competent PASMA trained and certificated operatives. Monarflex will be used to the scaffold as a precaution against materials falling from height. On the areas immediately adjacent to the railway line, the scaffold will be bonded by Network Rail and inspected weekly. As an additional precaution, these areas will also be shrink wrapped.

Mains Power

To be supplied from location TBC, to avoid the use of generators due to noise restriction. Fleetwood Architectural Aluminium will supply 4 no. off 10KVA transformers.

Power Tools

All site power tools and will be 110volts, PAT tested at intervals not exceeding 3 months.

A register of tools and testing will be retained in the Fleetwood Architectural Aluminium Site office and made available for inspection on request. All power tools will be checked by a competent operative at the start of shift or before first use; any defective equipment will be removed from site and quarantined.

Task Lighting

Basic access and egress lighting will be supplied by Fleetwood Architectural Aluminium throughout communal pedestrian routes. Where required, suitable non-halogen-based task lighting will be provided by Fleetwood Architectural Aluminium; all task lighting equipment will be reduced voltage (110 volt) and will be required to be PAT tested at intervals not exceeding 3 months.

Mains Electrical Equipment

All mains electrical equipment, including battery chargers, office equipment etc. will be PAT tested at intervals not exceeding 3 months; PAT testing arrangements will be maintained on an on-going basis throughout the project duration.

Plant and Equipment Inspection

All significant plant & equipment will be listed on a site register retained within Fleetwood Architectural Aluminium site office and available for inspection on request. This will identify; Item / current certification together with renewal date and operatives trained to use given plant / equipment together with a copy of their appropriate certification. List with trained operatives will be available on the site file.

Lasers

Lasers used during setting out activities, will be classified as Class 1, Class 2 or Class 3A. Classes of laser higher than 3A will not to be used on site i.e. 3B or Class 4.

During use 'Laser Hazard' warning signs will be posted and use of lasers at eye level will be minimized.

9.12 Outline installation method statement

(Specific and detailed statements will be provided once the design of each package has been fully determined and agreed, prior to installation commencement on site, this method statement has been prepared for Tender).

Safe System of Work

PPE for all operatives and supervision onsite will be 4-point chin strap Hard Hats, Hi-Vis Jackets, Safety Footwear S3, Gloves, Safety Glasses and when working on the slab edge the Safety harness connected to self-restraint system (system is compose of anchorage, safety line, slings that connect the safety line to the anchorage and lanyards).

Operatives to attend the morning briefings before start of work. After the morning briefings, operative to do the daily checks on the equipment and if necessary, request any necessary permit.

Checks to be completed.

- Harness – weekly check by the Operative.
- Power tools – weekly check by the Operative.
- Self-restraint system – Weekly check by the Operatives.
- Podium steps/ mobile Scaffold – Weekly check by PASMA certified operatives.
- All other plants will have weekly inspections.
- Lifting Accessories – according to the inspection sheet attached to this TSAP. All lifting accessories to have individual reference number.

Any equipment, tool or PPE that is faulty should not be used, and this will be communicated immediately to the Supervisor.

**** ALL TOOLS AND MATERIALS WILL BE TEATHERED TO ENSURE NOTHING CAN FALL FROM HEIGHT****

Setting out

All Site installation activities are undertaken in accordance with FAA’s Site packs produced for all areas of works identified in phases.

All bracket installation locations will be set out in accordance with the dimensions on Grid lines as indicated by the relevant approved Construction Issue drawings reference Fleetwood Architectural Aluminium Site Pack.

9.13 Methodology & Sequence

Deconstruction

Removal of existing rain screen cladding system to the main façade level 5-7, as follows.

- Removal of balcony dividing screens
- Removal of Support timber
- Removal of Breather Membrane & EPDM’s
- Removal of spandrel panels to windows
- Removal of Timber Decking

Installation

A new Vulcan cladding system installed directly to existing timber structure. Cladding panels ordered to size, but some would require on site cutting to suit.

Decking

Replacement Aluminum decking installed to balcony structure with the use of a sub-frame.

9.14 Cleaning

A final sparkle clean to all glass and cladding panels will be carried out to include for the removal of any film.

9.15 Quality

Fleetwood Architectural Aluminium are registered ISO 9001:2015 and H&S is an intrinsic part of this accreditation.

A project specific quality plan will be developed and implemented for this project. This will include quality procedures from Design stage through to final installation completion including handover sheets and hold points.

An ITP will be developed to include Quality Check sheets for each element within our Package, allowing each stage of installation to be signed off by both the client and our own personnel. ITP will also include full test regime for works onsite developed as per project requirements.

The QA process will be supported with Fleetwood architectural Aluminum QA software provide by Fieldview

9.16 Emergency Arrangements

If there is a Fire/accident/emergency on site, all operatives will comply with Fleetwood Architectural Aluminium site rules and convene at the designated assembly point until such times that they are instructed to do otherwise (assembly points to be confirmed).

The Site Supervisor must report all accidents/emergencies immediately to Fleetwood Architectural Aluminium Health & Safety Coordinator who will record all findings.

All accidents however trivial must be entered immediately into the site or office accident book. Fatal, major injuries and dangerous occurrences must be reported immediately. Dangerous occurrences must be notified irrespective of whether an injury has occurred.

9.17 Housekeeping

All personnel are required to conduct their activities in such a way as not to endanger themselves or other people at

work, or the general public. It is therefore important that they don't leave materials and plant around that may cause a trip, slip or fall hazard to others.

All work areas will be cleaned at least once daily with waste material removed to waste segregation & removal area.

They have also a duty of care to report any potential hazard of whatever nature to the site safety supervisor. All materials brought on site will be stored in Fleetwood Architectural Aluminium Containers and/or compound.

9.18 COSHH / Hazardous substances

Effects of Harmful Dusts created by cutting metal shall be controlled using FFP3 respirators. Dust levels will be below Maximum Exposure Limits as cutting will be intermittent and infrequent Where dust levels increase, vacuum extraction will be provided.

Where Red Diesel is used for re fueling this must be done by the designated refueler and correct PPE must be worn when handling. Impervious gloves must be worn.

9.19 Noise & Vibration

FAA will at all times reduce the risk of damage of hearing from exposure to noise to the lowest reasonably practical level. Assessments will be carried out as and when required by the regulations and, where practicable, noise will be suppressed at source e.g., by fitting silencers / suitable enclosure so machines or processes with personal ear protection provided to employees as and when required.

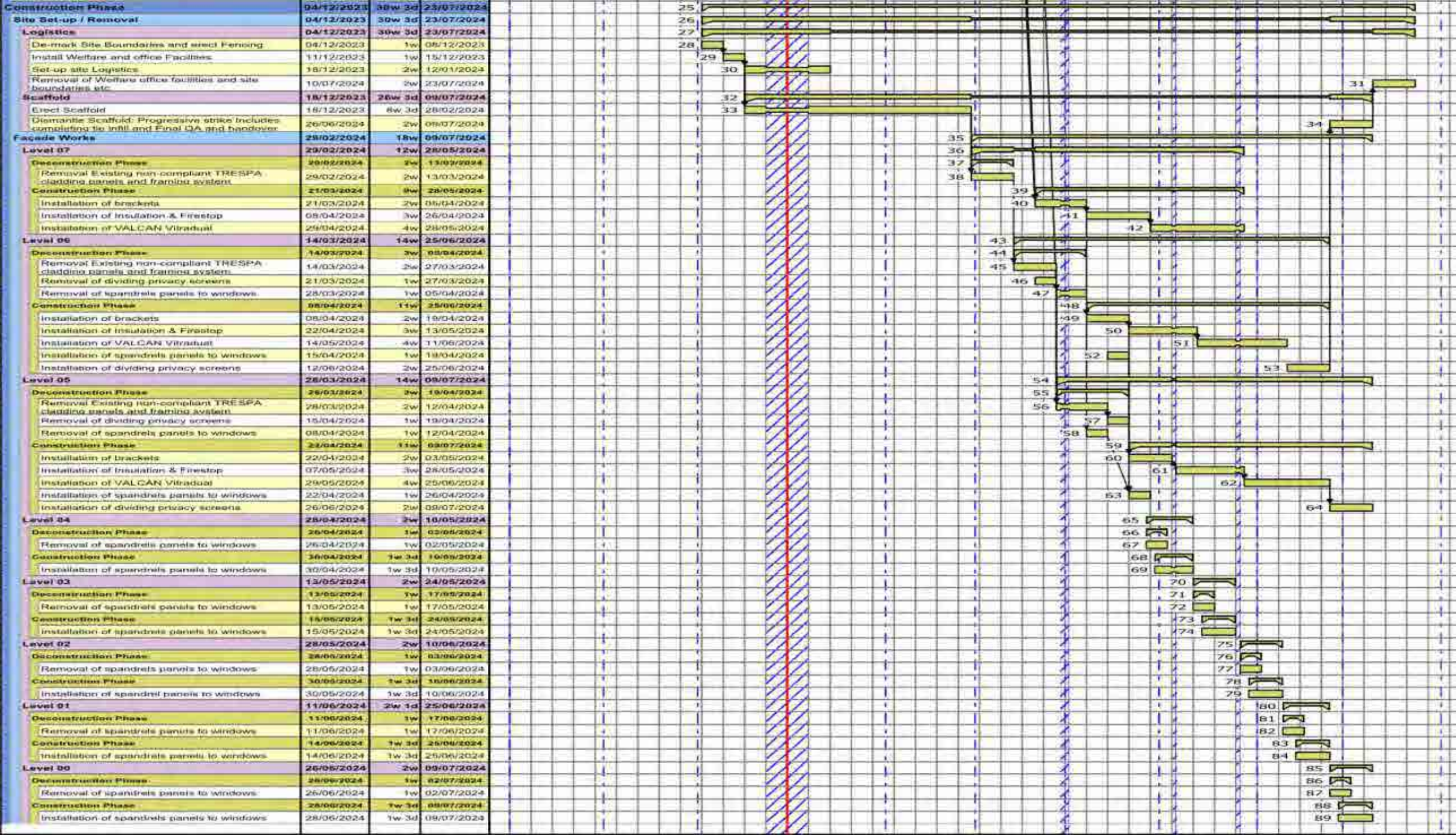
Where it is suspected that particular work activities will generates noise levels at or in excess of the lower exposure action values, namely daily or weekly exposure of 80dB and peak sound pressure of 135dB as specified in the Control of Noise at Work Regulations, noise assessments will be conducted regularly on site by suitably competent assessors, usually the Health and Safety Advisor.

9.20 Monitoring & Inspection

Our Project Manager will be responsible for day-to-day monitoring of all FAA activities to ensure that our workforce is acting safely and responsibly, all equipment is used in a safe manner and others are not being put at risk by our activities. He will act immediately where any unsafe activities are occurring in line with our H&S Policies and procedures. Serious breaches will be reported to the client and our HSEQ dept.

PROGRAMME

Fleetwood Architectural Aluminium



FAA RISK REGISTER

Fleetwood Architectural Aluminium

FAA SUPPLY CHAIN

Fleetwood Architectural Aluminium

Our Supply Chain Partners:

