

FSC Report

ABP-312819-22

Appeal v Refusal or Appeal v

Condition(s)

Development Description

Appeal v Refusal

Revised Fire Safety Certificate application in relation to a proposed green wall in the ground floor reception area of the proposed Motel One Development for which a Fire Safety Certificate 7 Day Notice No FSC3381/21/7D has been

granted

Αt

113 Middle Abbey Street, Dublin 1

An Bord Pleanala appeal ref

number:

ABP-312819-22

Building Control Authority

Managers Order No:

FSR1020/22/REV

Appellant & Agent:

Applicant: Mr Bryan Lawlor

Agent: Jensen Hughes

Building Control Authority:

Dublin City Council

Date of Site Inspection

NA

Inspector/ Board Consultant:

Maurice Johnson

Appendices

NA

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2.0 Introduction

2.1 Subject Matter and Background to the Appeal

This report sets out my findings and recommendations on the appeal submitted by Jensen Hughes [hereafter referenced as JH] on behalf of their Client, Mr Bryan Lawlor, against the decision of Dublin City Council [hereafter referenced as DCC] to refuse to grant a Fire Safety Certificate (Building Control Authority Decision Order No: FSR1020/22/REV- Reg Ref No. SN3004708/FRV2106539DC) in relation to a proposed green wall in the ground floor reception area of the proposed Motel One Development for which a Fire Safety Certificate 7 Day Notice No FSC3381/21/7D has been granted at 113 Middle Abbey Street, Dublin 1

The Motel One development comprises 7 floors of bedrooms above ground floor ancillary hotel accommodation, hotel reception/lounge and separate standalone retail unit, atop a basement containing hotel plantrooms and other ancillary hotel accommodation. The approved design for which FSC3381/21/7D was granted incorporates a void extending from the ground floor hotel reception/lounge through bedroom floors 1-5 with the void enclosed in fire rated construction on the bedroom floors comprising fire rated walls/partitions and automatic fire and smoke shutters and doors. There is no enclosure to the void at ground floor level i.e. the void is open to the hotel lounge/reception area.

The subject matter of the Revised FSC Reg Ref No. SN3004708/FRV2106539DC is a proposal to install a Green Wall feature in the ground floor reception area extending to first floor slab level as indicated on JH drawings Bl/3684/2/1 and Bl/3684/2/3 and having an overall extent of circa 4.2m high x 4.8m wide.

The Fire Safety Certificate was refused on 21.02.2022 with the stated reason for the refusal being:

Reason: The proposed works do not comply with the requirements of Parts Bl-B5 of the Second Schedule to the Building Regulations 1997-2019

2.2 Documents Reviewed

- 2.2.1 Revised Fire Safety Certificate Application and Supporting Documentation submitted by JH on behalf of their Client
- 2.2.2 Decision to Refuse the application by DCC dated 21.02.2022
- 2.2.3 Appeal submission to An Bord Pleanala by JH dated 17.02.2022 and 19.04.2022
- 2.2.4 Appeal submission to An Bord Pleanala by DCC Fire Officers Report dated 09.03.2022

3.0 Consideration of Arguments by Appellant and BCA

Refusal - stated reason:

The proposed works do not comply with the requirements of Parts Bl-B5 of the Second Schedule to the Building Regulations 1997-2019

Insofar as the reason stated for the refusal is unspecific as to the concerns of DCC it is considered appropriate in the first instance to summarise the key issues based on the submission by DCC to ABP by cover of their letter dated 16.03.2022 i.e. incorporating Fire Officer Report dated 09.03.2022

Case made by DCC in respect of decision to Refuse the application

In their submission to An Bord (i.e. Fire Officers Report dated 09.03.2022), DCC make the following key points in support of their decision to Refuse the application:

i. In items 1, 2, 3 and 4 of their submission to An Bord, DCC argue that the void over reception, which links levels G-5, is an 'atrium' and that the Applicant should have addressed compliance with BS5588 Part 7 Fire precautions in the design, construction and use of buildings - Part 7:

Code of practice for the incorporation of atria in buildings in their application for the Green Wall.

DCC also raise concerns with regard to the use of automatic fire and smoke shutters at upper levels to isolate the passenger lifts from the lift lobbies.

It is noted that the fire strategy for the protection of the void over the reception/lounge is fully dealt with and approved by DCC in the original FSC application - FSC3381/21/7D - and comprises:

- enclosing the void with fire rated compartment wall construction at the upper floors including FD60S rated self-closing doors to the bedroom corridors combined with 30minute rated fire and smoke shutters between the void and the lift landings, and
- o the provision of automatic smoke vents at the head of the atrium.

Based on the foregoing the approved fire strategy provides for the entire of the ground floor lounge and reception to be open to the void.

Accordingly, it is difficult to understand why DCC, in considering the provision of a Green Wall feature in the ground floor reception/lounge, appear to be raising fire strategy issues which have already been dealt with and approved in FSC3381/21/7D.

- ii. DCC query whether the technical information provided by the applicant i.e. the IFC Engineering Assessment Report PAR/19533/01 on the fire performance of the ANS Living Wall System and which was submitted in Appendix 5 of the JH Compliance Report Bl/3684/R2 Issue 1 is appropriate to the subject application in that the report does not make clear whether it applies to an Internal or External Wall System. DCC do not appear to have queried this during their processing of the FSC application.
- iii. DCC correctly note that the IFC Engineering Assessment Report PAR/19533/01 is based on the premise that the ANS Living Wall System would be constantly irrigated and go onto state that

- details of the irrigation being proposed were not provided in the Applicant's FSC submission. DCC do not appear to have queried this during their processing of the FSC application.
- iv. DCC take issue with the term in the Conclusion section of the IFC Engineering Assessment Report PAR/19533/01 that the "likely" fire performance of the ANS Living Wall System if tested would be B-s2, d0

Case made by Jensen Hughes

For their part, JH make the following key arguments in their submissions to ABP:

- I. For their part JH note that the fire strategy for the void over the reception/lounge was fully addressed and approved in FSC3381/21/7D and provided for the ground floor reception/lounge to be fully open to the void. JH therefore argue that the only issue arising with the Green Wall is whether the Green Wall satisfies the fire performance requirements of the Building Regulations as a wall lining i.e. Requirement B2 of the Second Schedule.
- II. Regarding the issue of whether the IFC Engineering Assessment Report PAR/19533/01 applies to an external or internal version of the ANS Living Wall System, JH state that it is not required that the report state whether the system is for internal or external applications. In this regard JH appear to misunderstand the query being raised by DCC which is whether the system described in and covered by the IFC report is in fact the system being proposed in their FSC application.
- III. Regarding the question of irrigation, JH state in their submission to ABP dated 19.04.2022 that the design of the Green Wall system is yet to be agreed with the Design Team. This is a surprising statement given that JH have included a fire engineering report in the FSC application pertaining to the *ANS Living Wall System* the clear inference being that they were proposing the *ANS Green Wall System* for this application.
 - JH also state that there is no requirement for irrigation as the plants are treated for durability. This again is a surprising and confusing statement as the IFC Engineering Assessment Report PAR/19533/01 which JH submitted with their FSC application specifically identifies that the conclusions in the report are contingent on their being constant irrigation of the Green Wall.
- IV. Regarding the term "likely" used in the conclusion section of in the IFC report, JH argue that this term is arising out of the fact that a Green Wall System cannot be tested in full conformance with the format detailed in the relevant EN fire test standards test standards and therefore the test configurations are by necessity ad-hoc in nature.
 - JH argue that it is for this reason that IFC use the term "likely" as their report is an Engineering Assessment and not the result of a fully conformant fire test.

40 Assessment

- I. I concur with the JH assertion that the fire strategy for the void over reception/lounge has been fully dealt with and approved in the previous FSC3381/21/7D and does not require reassessment in light of the proposal to install a Green Wall system which is confined to ground floor level as is the case in this instance.
 - The issue which therefore arises is solely whether the Green Wall System satisfies the fire performance criteria in Part B of the Building Regulations as a wall lining.
- II. JH note in their FSC application that the relevant fire performance criterion for wall linings in the ground floor lounge/reception area is Class 8 s2, d0 and therefore the Green Wall proposal is correctly considered against this criterion.
- III. The ANS Living Wall System as described in the IFC Engineering Report PAR/19533/01 can in this instance and having regard to the limited extent of the Green Wall be accepted in my view as demonstration of compliance with the criterion in sub-paragraph (ii) above subject to full adherence to the conditions in the IFC report including, but not limited to,
 - a. the need for irrigation,
 - b. the limitation on plant species and
 - c. the composition of the support system including the requirement in Section 4.6 of the report for a Euroclass AI substrate which it is noted exceeds the proposal for a Class BI substrate as set out in the JH submission to ABP dated 19.04.2022.
- IV. Insofar as Green Wall systems by their nature are subject to ad-hoc forms of fire testing it is appropriate in my view that the FSC application should include specific system details together with supporting fire test information.
 - In this instance JH have submitted fire test information based on a specific manufacturer's system i.e. the *ANS Living Wall System* but then go on to state in their appeal submission that the system design has not yet been finalized and also suggest that they are going to deviate from the requirements of the IFC report including in respect of irrigation and the fire performance of the substrate.

5.0 Conclusions/Recommendation

On the basis of my assessment in 4.0 above I consider that there are 2 options which the Bord may wish to consider:

Option 1:

Uphold the Refusal on the basis that the Applicant has not furnished sufficient details to demonstrate compliance with Requirement 82 Internal Fire Spread (Linings) of the Second Schedule to the Building Regulations 1997-2019, or

Option 2:

Direct the Building Control Authority to Grant the application with a condition that the Green Wall system and substrate shall conform fully with the requirements of the IFC Engineering Assessment Report PAR/19533/01.

In the event that the Applicant wishes to use an alternative Green Wall system it is open to them to make another FSC application incorporating the relevant alternative details and supporting technical information.

6.0 Reasons and Considerations

On the basis of my assessment in 4.0 above I consider that there are 2 options which the Bord may wish to consider:

Option 1:

Uphold the Refusal but alter the Reason to read as follows:

Reason: The Applicant has not submitted sufficient details of the Green Wall system to demonstrate compliance with Requirement 82 Internal Fire Spread (Linings) of the Second Schedule to the Building Regulations 1997-2019,

or

Option 2:

Direct the Building Control Authority to Grant the application with a condition as follows:

Condition 1: The Green Wall System including substrate shall conform fully with the requirements of the International Fire Consultants Engineering Assessment Report PAR/19533/01 and details of the system shall be submitted to Dublin City Council confirming compliance with the foregoing prior to installation of the system.

7.0 Decision

On the basis of my assessment in 4.0 above I consider that there are 2 options which the Bord may wish to consider:

Option 1:

Uphold the Refusal but alter the Reason to read as follows:

Reason: The Applicant has not submitted sufficient details of the Green Wall system to demonstrate compliance with Requirement 82 Internal Fire Spread (Linings) of the Second Schedule to the Building Regulations 1997-2019,

or

Option 2:

Direct the Building Control Authority to Grant the application with a condition as follows:

Condition 1: The Green Wall System including substrate shall conform fully with the requirements of the International Fire Consultants Engineering Assessment Report PAR/19533/01 and details of the system shall be submitted to Dublin City Council confirming compliance with the foregoing prior to installation of the system.

MAURICE JOHNSON

Chartered Engineer I BF, CEng, FIEI, MIStructE, MSFPE

Consultant/Inspector

Date: 24. 06. 2022