

# GREATER LONDON AUTHORITY

[REDACTED]  
(By email)

Our Ref: MGLA101219-8775

10 January 2020

Dear [REDACTED]

Thank you for your request for information which the GLA received on 10 December 2019. Your request has been dealt with under the Environmental Information Regulations.

You asked for;

*...copies of all the emails, letters, reports sent by the London Borough of Richmond upon Thames - in relation to the Turing House School planning application between 01 May 2018 and 10<sup>th</sup> December 2019 (other than copies of the information that is readily available on Richmonds own planning database). Along with any minutes of meeting you may have had with councillors or officers from Richmond Council where this application was discussed.*

*Please ask the (1) GLA planning team and (2) Mayor's private office and the (3) Deputy Mayor office to check their records.*

*Please can you supply a copies of all planning comments for, against and neutral that have been submitted to the GLA for the Turing House School planning application 18/3561/FUL. Including those from both members of the public, councillors, MPs, Assembly Members.*

Our response to your request is as follows:

Please find attached the information we hold within scope of your request. Please note that some names of members of staff and personal information relating to members of the public is exempt from disclosure Regulation 13 (Personal information) of the EIR.

This information could potentially identify individuals and as such constitutes as personal data which is defined by Article 4(1) of the General Data Protection Regulation (GDPR) to mean any information relating to an identified or identifiable living individual. It is considered that disclosure of this information would contravene the first data protection principle under Article 5(1) of GDPR which states that Personal data must be processed lawfully, fairly and in a transparent manner in relation to the data subject.

Please note that I have not included files which are already available via

[http://www2.richmond.gov.uk/PlanData2/Planning\\_CaseNo.aspx?strCASENO=18/3561/FUL](http://www2.richmond.gov.uk/PlanData2/Planning_CaseNo.aspx?strCASENO=18/3561/FUL)

If you have any further questions relating to this matter, please contact me, quoting the reference at the top of this letter.

Yours sincerely



**Information Governance Officer**

If you are unhappy with the way the GLA has handled your request, you may complain using the GLA's FOI complaints and internal review procedure, available at:

<https://www.london.gov.uk/about-us/governance-and-spending/sharing-our-information/freedom-information>

[REDACTED]

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**From:** [REDACTED] <[REDACTED]@richmondandwandsworth.gov.uk>  
**Sent:** 04 January 2019 10:08  
**To:** [REDACTED]  
**Subject:** RE: GLA 4739 - Land West of Hospital Bridge Road, Whitton NP

Thanks [REDACTED]

Regards,  
[REDACTED]

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**From:** [REDACTED] <[REDACTED]@london.gov.uk>  
**Sent:** 04 January 2019 10:07  
**To:** [REDACTED] <[REDACTED]@richmondandwandsworth.gov.uk>; Planning Support <planningsupport@london.gov.uk>  
**Subject:** RE: GLA 4739 - Land West of Hospital Bridge Road, Whitton NP

Thanks for letting us know. You will get an email from the support team once received confirming our timescales for processing.

Regards,  
[REDACTED]

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**From:** [REDACTED] <[REDACTED]@richmondandwandsworth.gov.uk>  
**Sent:** 04 January 2019 10:04  
**To:** Planning Support <planningsupport@london.gov.uk>; [REDACTED] <[REDACTED]@london.gov.uk>  
**Subject:** RE: GLA 4739 - Land West of Hospital Bridge Road, Whitton NP

Dear [REDACTED]

I am the case officer for this application. I have arranged for the applicant to send across the submission material as per your email below.

If you could please confirm when it is received that would be appreciated.

Regards,  
[REDACTED]

Senior Planning Officer (Strategic Development)  
Serving Richmond and Wandsworth Borough Councils  
020 8891 [REDACTED]

[REDACTED] [richmond.gov.uk](http://richmond.gov.uk)

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**From:** [REDACTED] On Behalf Of Environmental Protection  
**Sent:** 28 December 2018 10:23  
**To:** [planningsupport@london.gov.uk](mailto:planningsupport@london.gov.uk)  
**Cc:** [REDACTED] <[REDACTED]@richmondandwandsworth.gov.uk>  
**Subject:** RE: GLA 4739 - Land West of Hospital Bridge Road, Whitton NP

Dear [REDACTED]

Thank you for your email which has been forwarded to [REDACTED] the planning officer dealing with this application who will acknowledge your query within 7 working days.

We are conducting a Customer Experience Survey to gather customer feed-back to help improve our services. The survey only takes 5 minutes and can be completed by using the link below:

[www.richmond.gov.uk/customer\\_feedback](http://www.richmond.gov.uk/customer_feedback)

If you require any further assistance please do not hesitate to contact us.

Kind regards,  
[REDACTED]

Corporate Customer Services  
London Borough of Richmond upon Thames  
Tel: 020 8891 [REDACTED]

For information about all the services provided by the London Borough of Richmond upon Thames please visit:

<http://www.richmond.gov.uk>

You can also follow us on Twitter for up to date information and news:

Twitter [@LBRuT\\_Help](https://twitter.com/LBRuT_Help)

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**From:** [planningsupport@london.gov.uk](mailto:planningsupport@london.gov.uk) [<mailto:planningsupport@london.gov.uk>]  
**Sent:** 28 December 2018 10:19

To: [REDACTED] [london.gov.uk](mailto:london.gov.uk); Environmental Protection  
Cc: [planningsupport@london.gov.uk](mailto:planningsupport@london.gov.uk)  
Subject: GLA 4739 - Land West of Hospital Bridge Road, Whitton NP

Dear Mr [REDACTED]

**Town & Country Planning Act 1990 (as amended); Greater London Authority Act 1999 & 2007; Town & Country Planning (Mayor of London) Order 2008.**

**Site name:** Land West of Hospital Bridge Road, Whitton

**Address:** Hospital Bridge Road, Whitton , Twickenham , TW2 6LE

**GLA case number:** 4739

**Local planning authority reference:** 18/3561/FUL

Thank you for consulting the Mayor of London in respect of the above application of potential strategic importance, which your Council validated on **7 December 2018**.

Under Article 4(2) of the above Order the Mayor has six weeks from the date of validation by the GLA to provide a statement setting out whether he considers the application complies with his London Plan and his reasons for taking that view.

I hereby give notice that your letter was received on **14 December 2018** referring to the above application. However, the relevant planning documents were not attached. I would be grateful if you could forward (or arrange to be forwarded from the applicant) one hard copy of each of the following documents only to the Development Management Team as soon as possible:

Design and Access Statement

Townscape and Visual Impact Assessment (if applicable)

Together with an electronic copy of **all** of all the application documentation

We do not accept web-links to documents and we do not require multiple hard copies of documents. Any additional documents received which are not directly required will be disposed of.

Please note that the six week period referred to in Article 4 (2) of the above Order will not start until these documents are received.

The application has been allocated to [REDACTED] who can be reached on 020 7983 [REDACTED] or email [REDACTED] [london.gov.uk](mailto:london.gov.uk)

Kind regards

[REDACTED]  
[REDACTED]  
Planning Support Team  
Development, Enterprise & Environment  
GREATERLONDONAUTHORITY  
City Hall, The Queens Walk, London SE1 2AA  
Tel: +44 (0)20 7084 [REDACTED]  
Mob +44 (0)78 [REDACTED]  
Switchboard +44 (0)20 7983 4000  
Email: [REDACTED] [london.gov.uk](mailto:london.gov.uk)  
Web: <https://www.london.gov.uk/what-we-do/planning>



[REDACTED]

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**From:** [REDACTED] <[REDACTED]@richmondandwandsworth.gov.uk>  
**Sent:** 12 February 2019 08:56  
**To:** [REDACTED]  
**Subject:** RE: Turing House School (4739)  
**Attachments:** 20110517-cua-template-full-agreement\_final.doc

Hi [REDACTED]  
Please see attached CUA from the applicant. It's the bare bones of a Sport England CUA template and our lawyers certainly haven't had sight of it but hopefully gives you enough detail of the extent of community use proposed. Please let me know if you need any further details.  
Finally, I can confirm that our transport department raise no objections subject to conditions and S106 including various highway works. I can also confirm that we are working towards a recommendation for approval at this stage. I will keep you updated though.  
Regards,  
[REDACTED]

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**From:** [REDACTED]  
**Sent:** 11 February 2019 11:34  
**To:** [REDACTED] <[REDACTED]@london.gov.uk>  
**Subject:** RE: Turing House School (4739)  
Thanks for that [REDACTED]  
No we haven't – happy to do so though.  
Regards,  
[REDACTED]

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**From:** [REDACTED] <[REDACTED]@london.gov.uk>  
**Sent:** 11 February 2019 11:32  
**To:** [REDACTED] <[REDACTED]@richmondandwandsworth.gov.uk>  
**Subject:** RE: Turing House School (4739)  
Hi, My deadline for completing my report is first thing on Wednesday so if you could let me know by tomorrow that would be great.  
BTW, have you requested verified views in a winter scenario?

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**From:** [REDACTED] <[REDACTED]@richmondandwandsworth.gov.uk>  
**Sent:** 11 February 2019 10:41  
**To:** [REDACTED] <[REDACTED]@london.gov.uk>  
**Subject:** RE: Turing House School (4739)  
Hi [REDACTED]

Apologies for not getting back sooner. I have only just received comments from transport. When do you need a response from us by as I would just like to discuss one point with my line manager before confirming our position? Also, I have not yet had a response from the applicant on the CUA.  
Regards,  
[REDACTED]

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**From:** [REDACTED] <[REDACTED]@london.gov.uk>  
**Sent:** 28 January 2019 12:26  
**To:** [REDACTED] <[REDACTED]@dppukltd.com>; [REDACTED] <[REDACTED]@dppukltd.com>  
**Cc:** [REDACTED] <[REDACTED]@richmondandwandsworth.gov.uk>  
**Subject:** RE: Turing House School (4739)  
I attach TfL comments on the application.  
Thanks,  
[REDACTED]

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**From:** [REDACTED]  
**Sent:** 16 January 2019 08:58  
**To:** [REDACTED] <[REDACTED]@dppukltd.com>

Cc: [REDACTED] <[REDACTED]@dppukltd.com>

**Subject:** RE: Turing House School (4739) - Hard Copies

Hi [REDACTED]

No need for hard copies thanks. Electronic set is sufficient, which we have.

Many thanks,

[REDACTED]

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**From:** [REDACTED] [mailto:[REDACTED]@dppukltd.com]

**Sent:** 16 January 2019 08:57

**To:** [REDACTED] <[REDACTED]@london.gov.uk>

**Cc:** [REDACTED] <[REDACTED]@dppukltd.com>

**Subject:** Turing House School (4739) - Hard Copies

Good morning [REDACTED]

I understand that the application for the new Turing House School (GLA case no. 4739 and LPA ref. 18/3561/FUL) in Whitton has been allocated to yourself. As requested, we are arranging to have hard copies of the submission documents couriered to you today, could you please advise on the address to which these should be sent?

Kind regards,

[REDACTED]

**Assistant Planner**

**T:** 0207 706 [REDACTED]

**E:** [REDACTED]@dppukltd.com

*[This document is intended to be a basic template for drawing up a formal community use agreement. It, therefore, should be amended accordingly to reflect the context that it is being used in]*

Date:

*[Amend as appropriate]*

~~The [ ]~~ Turing House School

☐ Local Authority

*[County Council if a two tier authority]*

*[Landowner if different from the above]*

*[Local Education Partnership / Contractor]*

*[Leisure Trust/County Sports Partnership/Community Sports Network if applicable]*

Draft Agreement in relation to arrangements for  
community use of sports facilities at [ ] School

In connection with Planning Permission  
[reference]

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DATE [ ]

[Amend Parties as appropriate]

- (1) THE ~~H~~Turing SCHOOL of [ insert address] (“the School”)
- (2) [ ] LOCAL AUTHORITY of [insert address] (“the Council”)
- (3) [ ] COUNTY COUNCIL of [insert address] (“the County Council”)
- (4) [LANDOWNER] of [insert address] (“the Landowner”) [If different from the above]
- (5) [LOCAL EDUCATION PARTNERSHIP/CONTRACTOR] of [insert address] (“the LEP/Contractor”)
- (6) [LEISURE TRUST/COUNTY SPORTS PARTNERSHIP/COMMUNITY SPORTS NETWORK] of [insert address] (“the [insert as appropriate ]”) [If applicable]
- (7) [ANY OTHER RELEVANT PARTY, e.g. Town of Parish Council] of [insert address] (“the [insert as appropriate ]”) [If applicable]

1. Recitals

- 1.1 Planning Permission was [redacted] by the [Council/County Council] for the Development subject to conditions. Condition [insert number] of the Planning Permission requires that an agreement shall be submitted to the local planning authority for approval to demonstrate how community access to the Sports Facilities within the Development and/or the wider school site will be managed.
- 1.2 The parties wish to enter into this Agreement in order to make the ~~f~~indoor and outdoor~~r~~ Sports Facilities at the Development and/or the wider school site, available (when their use is not required by the School) for use by the local community in compliance with the terms of this Agreement and Condition [insert no.].
- 1.3 The School is the owner of the School Premises and is responsible for their use.

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- 1.4 The Council [*amend as appropriate*] has responsibility for the provision of sports facilities in the [*district*] area for use by and for the benefit of the community and is desirous of entering into this Agreement in furtherance of that responsibility [*and as the local planning authority in respect of the Development.*] [*delete as appropriate if County Council is the planning authority*]
- 1.5 [*The County Council is the local education authority for the area [and the Landowner/applicant for Planning Permission/local planning authority]]. [Delete as appropriate]*
- 1.6 [*The Landowner is the owner of the [ ] School and agrees to provision of community access to the Sports Facilities.*] [*Delete as appropriate*]
- 1.7 [*The [LOCAL EDUCATION PARTNERSHIP/Contractor] has been appointed by the School to manage and operate the Facility.*] [*Delete as appropriate*]
- 1.8 [*The Leisure Trust/County Sports Partnership/Community Sports Network supports and promotes community participation in sports in the local area.*] [*Delete as appropriate*]

2. Definitions and Interpretation

In this Agreement the following words or phrases have the corresponding meanings ascribed to them unless the context otherwise requires:

Community Use	means use of the Sports Facilities by the local community including organised sports clubs, organisations and for casual use.
Casual Use	means availability for any individual(s) or groups to book the Sports Facilities up to [ <i>insert number</i> ] days in advance for use on a pay-as-you-play basis, where space is available
Development	means [ <i>insert description of the development</i> ] for which Planning Permission has been [REDACTED]
Sports Facilities	means the sports facilities identified in Schedule 1 to this Agreement forming part of the School Premises

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<b>Management Committee<sup>1</sup></b>	means the management committee as defined in clause [6.1] of this Agreement
<b>Parties</b>	means the parties to this Agreement
<b>Planning Permission</b>	means planning permission (reference [    ]) [REDACTED] by the [Council/County Council] on [    ]
<b>Priority Groups</b>	means those groups identified by the Parties as being under represented for the particular activity engaged in
<b>Review Committee</b>	means representatives of each of the Parties to this Agreement or their nominees
<b>School Core Times</b>	means [            ] to [            ] Mondays to Fridays during term time as defined in Schedule 2 to this Agreement
<b>School Premises</b>	means the land and buildings comprising [    ] School

**3. Aims**

The Parties agree to pursue the following aims: [*amend to reflect local aims as appropriate*]

- Providing opportunities for the local community and sports organisations to participate in sport and physical activity for health improvement and development of their skills, particularly amongst low participant groups;
- Operating in line with the national agenda for sport taking into account nationally adopted strategies;
- Generating positive attitudes in sport and physical activity by young people and reducing the drop out rate in sports participation with age;
- Increasing the number of people of all ages and abilities participating in sport and physical activity including people with disabilities;

<sup>1</sup> Delete definition if no Management Committee.

- Using the facilities to encourage the range, quality and number of school sports club links and to stimulate competition that is inclusive of young people and adults;
- To provide affordable access to the facilities and to be self financing in terms of community use;
- ~~[Insert further local aims as appropriate]~~not aware of other specific local aims but happy to consider including

#### 4. Arrangements for Community Use

The School agrees to make the Sports Facilities available for Community Use in accordance with the provisions of Schedule 2 to this Agreement, ~~and may also be offered during School Core Times.~~ *[Amend as appropriate]*

#### 5. Targets for Community Use

The School shall use reasonable endeavours to achieve community use targets ~~[where appropriate]~~ in line with appropriate sports development strategies, including making a contribution to ~~[County and]~~ local participation targets for sporting and physical activity. The School shall work with *[insert relevant partners e.g. Local Authority Sports Development/the Community Sports Network/the Leisure Trust/County Sports Partnership/National Governing Bodies etc]* to provide a range of opportunities and pathways for the community. These may include existing initiatives and will also include new and local activities.

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#### 6. Marketing and Promotion

The School will be responsible for marketing and promoting the Sports Facilities in accordance with the agreed aims and targets. A marketing strategy will be prepared and implemented and reviewed on an annual basis.

#### 7. Management<sup>2</sup>

- 7.1 A Management Committee will be established within 3 months of the date of this Agreement to develop Community Use of the Sports Facilities in accordance with the terms of reference and constitution of Schedule 3 to this Agreement.

<sup>2</sup> Delete clauses 7.1-7.3 if a Management Committee is not required.

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7.2 Membership shall include representative(s) (or their nominee) from each of the following:-

- (a) The School<sup>3</sup>
- (b) The Council
- (c) [*The County Council if applicable*]
- (d) [*The Landowner if applicable*]
- (e) [*The Local Education Partnership/Contractor if applicable*]
- (f) [*The Leisure Trust/County Sports Partnership/Community Sports Network if applicable*]
- (g) [*representative from the community/[ ] user groups if applicable*]
- (h) [*any other organisation considered appropriate*]

7.3 Under these terms of reference, the Management Committee will, in accordance with this Agreement, seek to establish a practical policy framework for the management and operation of the Sports Facilities during agreed periods of Community Use. This framework should seek to enable:

- (a) a policy of affordable pricing to assist in the achievement of the aims of this Agreement. The policy will ensure that prices shall be no greater than similar local authority run facilities in the area;
- (b) the promotion and forward planning of development activities, at times which best suit the target groups;
- (c) equal opportunities of access;
- (d) an easy and accessible booking arrangement for Casual Use and block booking, this system to be reviewed on an annual basis;
- (e) an appropriate marketing strategy for the marketing of the Sports Facilities for Community Use.

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<sup>3</sup> To be the most appropriate person(s), such as Governor, Head Teacher, Head of PE.

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7.4 The School will be responsible for the Sports Facilities and shall:-

- (a) resource, control and routinely ensure the maintenance of the Sports Facilities in a manner that will allow achievement of the agreed aims, and
- (b) make the Sports Facilities available on the occasions and times specified in Schedule 2:
- (c) ensure provision of heat, light and water and such other amenities as required for the Sports Facilities and their intended use;
- (d) ensure that the Sports Facilities comply with all legislation and guidance in force at the time of this Agreement relating to access for disabled users;
- (e) cover the cost of gas, fuel, oil, electricity, water, rates and taxes that may be attributable to the use of the Sports Facilities.

## 8. Financial Matters

8.1 The School endeavours to ensure that the costs of operating Community Use at the Sports Facilities will be fully covered by income from such use and any surplus will be utilised to:

8.1.1 contribute to a contingency or sinking fund for major maintenance, repairs and ultimately renewal of fixed life elements of the Sports Facilities.

8.1.2 increase the use of the Sports Facilities by any Priority Groups by staging special promotions or by offering discounted rates of hire; *[where appropriate]*

8.1.3 improve and increase the stock of sports equipment for use in connection with the Sports Facilities.*[where required]*

## 9. Monitoring and Review

9.1 [ ] months prior to the date on which the Review Committee produces its annual report the School shall make available to the Review Committee details of all usage, bookings, maintenance and financial matters relating to the Community Use of the Sports Facilities to assist with the development and improvement of community access.

9.2 The Review Committee shall undertake an assessment of the adequacy of the implementation of this Agreement in relation to:

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- hours of use of the Sports Facilities;
- pricing policy;
- compliance with targets and aims of this Agreement;
- marketing;
- financial performance of the Sports Facilities during the previous year; and
- maintenance.

9.3 The Review Committee shall prepare a report based on the above assessment and prepare recommendations as to how Community Use of the Sports Facilities can be further developed and improved.

9.4 The School shall implement all reasonable recommendations of the Review Committee as soon as reasonably practicable.

9.5 In the event any significant changes are required to this Agreement as a consequence of each or any annual review prior written approval of each of the Parties to this Agreement shall be required.

9.6 The School shall not materially reduce the level of community access to the Sports Facilities required by Condition [*insert number*] of the Planning Permission without the prior written approval of the local planning authority following consultation with Sport England.

## 10. Duration of Agreement

This Agreement shall operate for so long as the School Facilities are provided in accordance with the Planning Permission. In the event the School should cease the Parties agree to make every effort to secure the continued operation of the Sports Facilities for Community Use.

## 11. Authority

The School warrants that it has the full right and authority to enter into this Agreement.

**12. No Variations**

This Agreement may only be varied in writing by a document executed by all the Parties hereto.

**13. No Agency**

Nothing in this Agreement shall be construed as creating a partnership, a joint venture, a contract of employment or a relationship of principal and agent between the parties hereto.

**14. Severability**

If any term condition or provision contained in this Agreement shall be held to be invalid unlawful or unenforceable to any extent such term condition or provision shall (save where it goes to the root of this Agreement) not affect the validity legality or enforceability of the remaining parts of this Agreement.

**15. Waiver**

No term or provision of this Agreement shall be considered as waived by any party to this Agreement unless a waiver is given in writing by that party.

**16. Non-Assignability**

This Agreement is personal to the parties and none of them shall assign sub-contract or otherwise deal with their rights or obligations without the prior written consent of the others.

**17. Governing Law and Jurisdiction**

This Agreement shall be governed by the laws of England and Wales and the parties submit to the exclusive jurisdiction of the courts of England and Wales.

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Schedule 1

1. The outdoor sports areas and facilities to be made available for Community Use shall comprise the following (as shown edged red on the attached plan(s)):-

- ~~[Insert details]~~ Grass playing fields
- Multi User Games Area

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2. The indoor sports areas and facilities (together with any ancillary facilities [*toilets, changing rooms etc*]) to be made available for Community Use shall comprise the following (as shown edged red on the attached plan(s)):-

~~[Insert details]~~

- Sports Hall
- Activity Studio
- Drama Studio
- Main Hall
- Dining Area

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Schedule 2

Arrangements for Community Use

1. Users

1.1 The Sports Facilities shall be made available for Community Use.

2. Hours of Access

TERM-TIME

Community Use      Mon, ~~Tue, Wed~~– Fri : [ 1700 - 2030 ]

Sat : [ 0800 - 1300 ]

Sun : [ 0800 - 1300 ]

SCHOOL HOLIDAYS

Community Use      Mon - Fri : [                      ]

Sat : [ -0800 - 1300 ]

Sun : [ 0800 - 1300 ]

[Subject to the School providing appropriate justification to the management committee, the School may restrict the use of grassed sports areas to protect them to fit in with the school requirements<sup>4</sup>.]

3. Pricing

3.1 A policy of affordable pricing shall apply to maximise Community Use and in accordance with the aims of this Agreement. Prices shall be no greater than for similar local authority run facilities in [specify the local authority area].

[Insert details of pricing or benchmark prices]

<sup>4</sup> Delete if not applicable.

4.     **Booking arrangements**

4.1     An easy and accessible advance booking arrangement for Casual Use and block bookings shall be established for hire of the Sports Facilities using a standard booking form.

4.2     The agreed booking arrangements shall operate as follows: - Online

*[Describe intended booking arrangements for the Sports Facilities. Management Committee to finalise booking arrangements after the first management meeting]*

5.     **Parking Arrangements (if applicable)**

5.1     [ ] car parking spaces shall be available to park for community users.<sup>5]</sup>

<sup>5</sup> Delete if not applicable.

### Schedule 3

#### Management Committee<sup>6</sup>

#### Terms of Reference and Constitution [*amend as required*]

##### 1. Purpose

- (a) To monitor progress against agreed aims and targets: programming, usage and financial and to provide regular reports for the stakeholders of the school on those topics.
- (b) To decide on policy issues e.g. pricing, the framework of sports programmes and staffing.
- (c) To ensure effective partnership working between the organisations involved in school community use.
- (d) To determine strategies for future developments at the School and timetables for their implementation.

##### 2. Officers

The Chair shall have the following roles;

- Role of Chair:
  - To direct and control the meetings of the committee.
  - To cast a further vote if necessary to resolve any tied decision(s).
  - To represent the committee at other meetings and functions as necessary.

A Secretary will be elected by the full committee at the first meeting of each financial year (April to March) and will serve for one full year.

- Role of Secretary:

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<sup>6</sup> Delete Schedule 3 if a Management Committee is not required.



- To compile and maintain minutes of all meetings.
- To compile and issue agendas for meetings in timely fashion.
- To take care of all communications to and from the committee.

### **3. Operation**

- (a) The full committee will convene at least [*insert number*] per annum. Additional meetings will be held as considered necessary by a simple majority of members.
- (b) The School will resolve day to day issues. Whilst the School has full authority for any decisions they must adhere to the policy framework established by the full committee.
- (c) Day to day operation will be the responsibility of the School.
- (d) Sub-groups/committees may be formed by the Management Committee if considered necessary or desirable.

### **4. Reporting**

- (a) Minutes of committee meetings will be maintained.
- (b) A formal annual report, as set out in paragraph 9 of this agreement, will be issued to cover policy, financial and sports development matters.
- (c) Other specific reports requested by other committee members when possible.

**IN WITNESS** whereof the hands of the parties or their duly authorised representatives the day and year first above written.

[Amend as appropriate]

Signed by .....

Duly authorised by the School

Signed by .....

Duly authorised by the Council

[Signed by .....

Duly authorised by the County Council]

[Signed by .....

Duly authorised by the Landowner]

[Signed by .....

Duly authorised by the [Local Education Partnership/Contractor]]

[Signed by .....

Duly authorised by the [Leisure Trust/County Sports Partnership/Community Sports Network]]

[Signed by .....

Duly authorised by the [Any other appropriate party]]

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*[Insert execution clause for the School]*

*[Insert execution clause for the Council]*

*[Insert execution clause for the County Council]*

*[Insert execution clause for the Landowner]*

*[Insert execution clause for the LOCAL EDUCATION PARTNERSHIP/Contractor]*

*[Insert execution clause for the Leisure Trust/County Sports Partnership/Community Sports Network]*

*[Insert execution clause for the Other Relevant Party]*

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[REDACTED]

---

**From:** [REDACTED] <[REDACTED]@richmondandwandsworth.gov.uk>  
**Sent:** 01 March 2019 11:56  
**To:** [REDACTED]  
**Subject:** RE: Turing House School (4739)

Thanks [REDACTED] – I will aim to call this afternoon.

Regards,  
[REDACTED]

---

**From:** [REDACTED] <[REDACTED]@london.gov.uk>  
**Sent:** 01 March 2019 09:27  
**To:** [REDACTED] <[REDACTED]@richmondandwandsworth.gov.uk>  
**Subject:** RE: Turing House School (4739)

Hi [REDACTED]  
That might be a bit tricky. I am on leave from 13<sup>th</sup> March until 1<sup>st</sup> April. Is there anything you need clarity on? I have spoken to the applicant re the visual appraisal and that seems to be the only query he had on the report. I am working from home today but you can reach me on my mobile (07971 259 841).

Thanks,  
[REDACTED]

---

**From:** [REDACTED] <[\[mailto:\[REDACTED\]@richmondandwandsworth.gov.uk\]](mailto:[REDACTED]@richmondandwandsworth.gov.uk)>  
**Sent:** 01 March 2019 08:43  
**To:** [REDACTED] <[REDACTED]@london.gov.uk>  
**Subject:** RE: Turing House School (4739)

Hi [REDACTED]  
Thanks for the GLA Stage 1 report sent through.  
There's obviously a few points that need addressing. We were thinking it might be useful to arrange a meeting with yourselves and the applicant in a few weeks once the applicant's have provided their initial response to the main points raised?

Regards,  
[REDACTED]

---

**From:** [REDACTED] <[REDACTED]@london.gov.uk>  
**Sent:** 15 February 2019 11:12  
**To:** [REDACTED] <[REDACTED]@dppukltd.com>; [REDACTED] <[REDACTED]@dppukltd.com>  
**Cc:** [REDACTED] <[REDACTED]@richmondandwandsworth.gov.uk>  
**Subject:** RE: Turing House School (4739)

Further comments attached.

Thanks,  
[REDACTED]

---

**From:** [REDACTED]  
**Sent:** 13 February 2019 14:52  
**To:** [REDACTED] <[REDACTED]@dppukltd.com>; [REDACTED] <[REDACTED]@dppukltd.com>  
**Cc:** [REDACTED] <[REDACTED]@richmondandwandsworth.gov.uk>  
**Subject:** RE: Turing House School (4739)

Both,  
I attach the energy officer's comments on the application. Generally fine. I look forward to receiving your response to the queries raised.

Thanks, [REDACTED]

---

**From:** [REDACTED]  
**Sent:** 28 January 2019 12:26  
**To:** [REDACTED] <[REDACTED]@dppukltd.com>; [REDACTED] <[REDACTED]@dppukltd.com>  
**Cc:** [REDACTED] <[REDACTED]@richmondandwandsworth.gov.uk>  
**Subject:** RE: Turing House School (4739)

I attach TfL comments on the application.

Thanks,

[REDACTED]

---

**From:** [REDACTED]  
**Sent:** 16 January 2019 08:58  
**To:** [REDACTED] <[REDACTED][dppukltd.com](mailto:dppukltd.com)>  
**Cc:** [REDACTED] <[REDACTED][dppukltd.com](mailto:dppukltd.com)>  
**Subject:** RE: Turing House School (4739) - Hard Copies

Hi [REDACTED]

No need for hard copies thanks. Electronic set is sufficient, which we have.

Many thanks,

[REDACTED]

---

**From:** [REDACTED] [[mailto:\[REDACTED\]@dppukltd.com](mailto:[REDACTED]@dppukltd.com)]  
**Sent:** 16 January 2019 08:57  
**To:** [REDACTED] <[REDACTED][london.gov.uk](mailto:london.gov.uk)>  
**Cc:** [REDACTED] <[REDACTED][dppukltd.com](mailto:dppukltd.com)>  
**Subject:** Turing House School (4739) - Hard Copies

Good morning [REDACTED]

I understand that the application for the new Turing House School (GLA case no. 4739 and LPA ref. 18/3561/FUL) in Whitton has been allocated to yourself. As requested, we are arranging to have hard copies of the submission documents couriered to you today, could you please advise on the address to which these should be sent?

Kind regards,

[REDACTED]  
[REDACTED]

**Assistant Planner**

**T:** 0207 706 [REDACTED]  
**E:** [REDACTED][\[REDACTED\]@dppukltd.com](mailto:[REDACTED]@dppukltd.com)

[REDACTED]

---

**From:** [REDACTED] <[REDACTED]@richmondandwandsworth.gov.uk>  
**Sent:** 22 March 2019 12:42  
**To:** [REDACTED]  
**Cc:** [REDACTED]  
**Subject:** RE: 18/3561/FUL, Land at Hospital Bridge Road, Twickenham, TW2 6LH

[REDACTED]

No – we are waiting for a response from the applicant on the GLA stage 1 report and the various consultee responses we have sent on to them. I think they intend to respond to all matters collectively. I will update you when I can.

Regards,

---

**From:** [REDACTED] <[REDACTED]@tfl.gov.uk>  
**Sent:** 22 March 2019 12:40  
**To:** [REDACTED] <[REDACTED]@richmondandwandsworth.gov.uk>  
**Cc:** [REDACTED]@london.gov.uk' <[REDACTED]@london.gov.uk>  
**Subject:** RE: 18/3561/FUL, Land at Hospital Bridge Road, Twickenham, TW2 6LH

Hi [REDACTED]

No worries. Sorry it has taken so long. Is there any other updates I should be made aware of?

Thanks,

---

**From:** [REDACTED] <[mailto:[REDACTED]@richmondandwandsworth.gov.uk]>  
**Sent:** 22 March 2019 12:38  
**To:** [REDACTED]  
**Cc:** [REDACTED]@london.gov.uk'  
**Subject:** RE: 18/3561/FUL, Land at Hospital Bridge Road, Twickenham, TW2 6LH

Thanks [REDACTED]

---

**From:** [REDACTED] <[REDACTED]@tfl.gov.uk>  
**Sent:** 22 March 2019 12:30  
**To:** [REDACTED] <[REDACTED]@richmondandwandsworth.gov.uk>  
**Cc:** [REDACTED]@london.gov.uk' <[REDACTED]@london.gov.uk>  
**Subject:** 18/3561/FUL, Land at Hospital Bridge Road, Twickenham, TW2 6LH

Dear [REDACTED]

I have spoken to my colleagues regarding the financial contribution to bus capacity enhancements in the area around the proposed Turing House School. They have undertaken analysis of the existing routes which serve the site and have added the predicted pupil build up and the expected origin and destinations of the additional trips in order to assess the impact on the existing services.. The analysis has identified that whilst there is currently sufficient capacity to accommodate the existing levels of demand, it is expected that we would require additional buses to accommodate the predicted level of demand generated by the school. As a result the following additional services would be require:

- ☐ Double decking of route 481 (We undertook a route test on the 481 last week with a double deck vehicle. Subject to works to trim back trees in four locations along the route, double decks should be able to operate)
- ☐ 2x return journey – route 481
- ☐ 2x return journey – New school route from Hampton and Hanworth to Turing House School
- ☐ 2x return journey – Route linking Twickenham with Hospital Bridge Road via Staines Road
- ☐ 1x return journey – New school route from Teddington and Hampton Hill to Turing House School

Based on pupil build up the following contribution are sought to accommodate demand:

- ☐ 2020-21 school year – 444 new trips expected – 6 return journeys, £540,000 per annum
- ☐ 2021-22 school year – 535 new trips expected – 7 return journeys, £630,000 per annum
- ☐ 2022-23 school year – 535 new trips expected - 7 return journeys, £630,000 per annum
- ☐ 2023-24 school year – 578 new trips expected – 8 return journeys, £720,000 per annum

- . 2024-25 school year – 609 new trips expected – 9 return journeys, £810,000 per annum

This would equate to a total maximum contribution of £3.3m. Contributions are sought for 5 years to allow for passenger demand to build up.

It is important to highlight that the contribution identified above is based on a snapshot of current capacity and predicted school bus trips and distribution. The contribution will only be drawn down if further analysis undertaken when the school is operational confirms the predicted capacity issues highlighted above.

We would still like to see the postcode data once applications are received for the September 2020 intake to ensure resources are in the right place, as the new location is some distance from the current site. Once these are fully assessed and the structure of the local network is confirmed (as you are aware we are consulting on a major bus network review of this area), we can look at spare capacity on existing routes and determining the most efficient way of meeting demand. It may be the case that some trips can be accommodated on the existing network, which would further bring down the cost.

It is also important to reiterate that whilst there was a £15m HM Treasury [REDACTED] allocated for new school bus services. This amount has not been committed to other schools and there is no more treasury funding available nor unfortunately do TfL have funding for additional school bus services. Therefore any mitigation to increase capacity of the bus network to accommodate the school will need to come from either the school provider or the council. I am happy to discuss in further detail.

Kind regards,

[REDACTED]  
[REDACTED]

Area Planner | Spatial Planning | City Planning

Phone: 020 7126 [REDACTED] (auto [REDACTED] | Email: [REDACTED] [TfL.gov.uk](mailto:[REDACTED]@tfl.gov.uk)

9th Floor (9B5), 5 Endeavour Square, Westfield Avenue, London E20 1JN



We have recently made changes to our pre-application service and charges, and introduced a new Initial Screening process.

For more info please visit: <https://tfl.gov.uk/info-for/urban-planning-and-construction/planning-applications/pre-application-services>

**From:** [REDACTED] <[REDACTED]@richmondandwandsworth.gov.uk>  
**Sent:** 12 April 2019 15:30  
**To:** [REDACTED]  
**Cc:** [REDACTED]  
**Subject:** FW: Turing House School, Hospital Bridge Road, (18/3561/FUL) - Response to GLA Stage 1 Comments  
**Attachments:** Response to GLA Stage 1.pdf; EFATH-ALA-00-XX-DR-L-SK05 MUGA Relocation Options.pdf; CUA v 1 Mar 2019.doc; FS0316-STL-ZZ-ZZ-DR-A-S202-Rooftop MUGA Analysis-P01.pdf; FS0316-STL-ZZ-ZZ-DR-A-S201-4 Storey Massing Comparison-P01.pdf; EFATH-ALA-00-XX-R-L-2001 P02 Visual Impact Assessment-compressed.pdf; FS0316-CUR-ZZ-00-DR-C-9203-P08\_Surface Water Drainage Layout Sheet 2 of 2.pdf; FS0316-CUR-00-XX-RP-C-0001-V07\_SW\_Network 1 in 1 year.pdf; FS0316-CUR-00-XX-RP-C-0001-V07\_SW\_Network 1 in 30 years.pdf; FS0316-CUR-00-XX-RP-C-0001-V07\_SW\_Network 1 in 100 years plus 40%CC.pdf; FS0316-CUR-ZZ-00-DR-C-9202-P08\_Surface Water Drainage Layout - Sheet 1 of 2.pdf; FS0316-CPW-00-XX-RP-N-0007 - Energy Statement-compressed.pdf

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

Official

Thanks – Please find attached

If you need to discuss anything, this contact myself or [REDACTED] (the case officer)

In terms of committee – I think we are heading for June (but please keep that confidential at the moment)

Regards

**Strategic Applications Manager (Richmond)**  
**Serving Richmond and Wandsworth Councils**

**Tel:** 0208 891 [REDACTED]

**Email:** [REDACTED]@richmondandwandsworth.gov.uk

**Web:** [www.richmond.gov.uk](http://www.richmond.gov.uk) / [www.wandsworth.gov.uk](http://www.wandsworth.gov.uk)

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Hi [REDACTED]

I'd be grateful if you could provide these to me informally and I will check that the issues raised have been addressed in full. When were you intending to take the application to committee?

Thanks,

**From:** [REDACTED] <[REDACTED]@richmondandwandsworth.gov.uk>

**Sent:** 12 April 2019 14:24

**To:** [REDACTED] <[REDACTED]@london.gov.uk>

**Cc:** [REDACTED] <[REDACTED]@richmondandwandsworth.gov.uk>

**Subject:** Land West of Hospital Bridge Road, Twickenham. 18/3561/FUL / GLA/4739/01

Official

I am the Area Manager at Richmond responsible for the progression of the above application. The applicants have now submitted the additional information / justification in response to the Stage 1 GLA report. In terms of next



steps, I can either provide this to you informally for comment or just progress to committee / Stage 2 – any preference?

Regards

**Strategic Applications Manager (Richmond)**  
**Serving Richmond and Wandsworth Councils**

**Tel:** 0208 891 [REDACTED] – DD 020 8 891 [REDACTED]

**Email:** [REDACTED] [richmondandwandsworth.gov.uk](mailto:[REDACTED]@richmondandwandsworth.gov.uk)

**Web:** [www.richmond.gov.uk](http://www.richmond.gov.uk) / [www.wandsworth.gov.uk](http://www.wandsworth.gov.uk)

This e-mail contains my opinion only that I give without prejudice to any consideration that the Local Planning Authority may give to an application on this site in the future.

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1.1

Date: XX XX XX

**Turing House School**

**L.B. Richmond upon Thames**

**Draft Agreement** in relation to arrangements for  
community use of sports facilities at Turing  
House School

**In connection with Planning Permission XXXX**

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DATE XX XX XX

- (1) **TURING HOUSE SCHOOL** of Hospital Bridge Road, Twickenham. TW2 6LH (“the **School**”)
- (2) **L.B. RICHMOND UPN THAMES LOCAL AUTHORITY** of Civic Centre, 44 York Street, Twickenham TW1 3BZ (“the **Council**”)

## 2. Recitals

- 2.1 Planning Permission was [REDACTED] by the Council for the Development subject to conditions. One condition requires that an agreement shall be submitted to the local planning authority for approval to demonstrate how community access to the Sports Facilities within the Development and/or the wider school site will be managed.
- 2.2 The parties wish to enter into this Agreement in order to make the indoor and outdoor Sports Facilities at the Development, available (when their use is not required by the School) for use by the local community in compliance with the terms of this Agreement.
- 2.3 It is anticipated that the School will hold the School Premises on a 125-year Lease from the S of S for Housing, Communities and Local Government. Assuming the Lease is agreed then the School will be responsible for their use.
- 2.4 The Council has responsibility for the provision of sports facilities in the L.B Richmond area for use by and for the benefit of the community and is desirous of entering into this Agreement in furtherance of that responsibility and as the local planning authority in respect of the Development.

## 3. Definitions and Interpretation

In this Agreement the following words or phrases have the corresponding meanings ascribed to them unless the context otherwise requires:

<b>Block Booking</b>	means booking of part or all the Sports Facilities for a specific time and day of the week for at least one Academic Term payable in advance.
<b>Community Use</b>	means use of the Sports Facilities by the local community including organised sports clubs and other organisations.

<b>Development</b>	means erection of 5 FE secondary school and Sixth Form including playing pitches, 3 court MUGA and Sports Block for which Planning Permission has been [REDACTED]
<b>Sports Facilities</b>	means the sports facilities identified in Schedule 1 to this Agreement forming part of the School Premises
<b>Management Committee</b>	means the management committee as defined in clause 7.1 of this Agreement
<b>Parties</b>	means the parties to this Agreement
<b>Planning Permission</b>	means planning permission (reference XXXXXXXX [REDACTED] by the Council on XXXXXXXX)
<b>Review Committee</b>	means representatives of each of the Parties to this Agreement or their nominees
<b>School Premises</b>	means the land and buildings comprising Turing House School

#### 4. **Aims**

The Parties agree to pursue the following aims:

- Providing opportunities for the local community and sports organisations to participate in sport and physical activity for health improvement and development of their skills, particularly amongst low participant groups;
- Operating in line with the national agenda for sport taking into account nationally adopted strategies;
- Generating positive attitudes in sport and physical activity by young people and reducing the dropout rate in sports participation with age;
- Increasing the number of people of all ages and abilities participating in sport and physical activity including people with disabilities;

- Using the facilities to encourage the range, quality and number of school sports club links and to stimulate competition that is inclusive of young people and adults;
- To provide affordable access to the facilities and to be self-financing in terms of community use;
- To assist in establishing and integrating the School in the local community by offering Sports Facilities for hire.

## **5. Arrangements for Community Use**

The School agrees to make the Sports Facilities available for Community Use in accordance with the provisions of Schedule 2 to this Agreement.

## **6. Targets for Community Use**

The School shall use reasonable endeavours to achieve community use targets *where appropriate* in line with appropriate sports development strategies, including contributing to local participation targets for sporting and physical activity. The School shall work with L.B. Richmond upon Thames Sports Development Team to provide a range of opportunities and pathways for the community. These may include existing initiatives and will also include new and local activities.

## **7. Marketing and Promotion**

The School will be responsible for marketing and promoting the Sports Facilities in accordance with the agreed aims and targets. A marketing strategy will be prepared and implemented and reviewed on an annual basis.

## **8. Management**

- 8.1 A Management Committee will be established within **X** months of the date of this Agreement to develop Community Use of the Sports Facilities in accordance with the terms of reference and constitution of Schedule 3 to this Agreement.
- 8.2 Membership shall include representative(s) (or their nominee) from each of the following: -
  - The School. This will be the Head teacher as well as the Chair of the Schools Finance and Premises Cttee (or equivalent Cttee).

- The Council
- A representative from the community for the first X months from XX 2021 – 31 August 2021. This place will be taken by a representative from user groups of the Sports Facilities Hall from 1 Sept 2021.
- Russell Education Trust

8.3 Under these terms of reference, the Management Committee will, in accordance with this Agreement, seek to establish a practical policy framework for the management and operation of the Sports Facilities during agreed periods of Community Use. This framework should seek to enable:

- a) a policy of affordable pricing to assist in the achievement of the aims of this Agreement. The policy will ensure that prices shall not be materially different than similar local authority run facilities and local Schools in the area and offer a discounted rate for Block Bookings;
- b) the promotion and forward planning of development activities, at times which best suit the target groups;
- c) equal opportunities of access;
- d) an easy and accessible booking arrangement for Community Use, this system to be reviewed on an annual basis;
- e) an appropriate marketing strategy for the marketing of the Sports Facilities for Community Use.

7.4 The School will be responsible for the Sports Facilities and shall: -

- a) resource, control and routinely ensure the maintenance of the Sports Facilities in a manner that will allow achievement of the agreed aims, and
- b) make the Sports Facilities available on the occasions and times specified in Schedule 2;
- c) ensure provision of heat, light and water and such other amenities as required for the Sports Facilities and their intended use;
- d) ensure that the Sports Facilities comply with all legislation and guidance in force at the time of this Agreement relating to access for disabled users;

- e) cover the cost of gas, fuel, oil, electricity, water, rates and taxes that may be attributable to the use of the Sports Facilities.

## **9. Financial Matters**

- 9.1 The School endeavours to ensure that the costs of operating Community Use at the Sports Facilities will be fully covered by income from such use and any surplus will be utilised to:
  - 9.1.1 contribute to a contingency or sinking fund for major maintenance, repairs and ultimately renewal of fixed life elements of the Sports Facilities.
  - 9.1.2 repair or replace the stock of sports equipment such as basketball posts, netball posts, 5 aside goals for use in connection with the Sports Facilities where required

## **10. Monitoring and Review**

- 10.1 At least 1 month prior to the date on which the Review Committee produces its annual report the School shall make available to the Review Committee details of all usage, bookings, maintenance and financial matters relating to the Community Use of the Sports Facilities to assist with the development and improvement of community access.
- 10.2 The Review Committee shall undertake an assessment of the adequacy of the implementation of this Agreement in relation to:
  - hours of use of the Sports Facilities;
  - pricing policy;
  - compliance with targets and aims of this Agreement;
  - marketing;
  - financial performance of the Sports Facilities during the previous year; and
  - maintenance.
- 10.3 The Review Committee shall prepare a report based on the above assessment and prepare recommendations as to how Community Use of the Sports Facilities can be further developed and improved.



- 10.4 The School shall implement all reasonable recommendations of the Review Committee as soon as reasonably practicable.
- 10.5 In the event any significant changes are required to this Agreement as a consequence of each or any annual review prior written approval of each of the Parties to this Agreement shall be required.
- 10.6 The School shall not materially reduce the level of community access to the Sports Facilities required by the Planning Permission without the prior written approval of the local planning authority following consultation with Sport England. It is however recognised that the School will need to use the Sports Hall for formal public exams and the internal mock public exams as well as one off annual event's such as "careers fayre" so it will not be available for hire during these periods. The Council will be advised at the start of each Academic year as to the expected dates and durations of such public exams and other events. Actual Dates will then be confirmed when known. Wherever possible Community Hirers will be provided with at least 4 weeks' notice.

## **11. Duration of Agreement**

This Agreement shall operate for so long as the School Facilities are provided in accordance with the Planning Permission. In the event the School should cease the Parties agree to make every effort to secure the continued operation of the Sports Facilities for Community Use.

## **12. Authority**

The School warrants that it has the full right and authority to enter into this Agreement.

## **13. No Variations**

This Agreement may only be varied in writing by a document executed by all the Parties hereto.

## **14. No Agency**

Nothing in this Agreement shall be construed as creating a partnership, a joint venture, a contract of employment or a relationship of principal and agent between the parties hereto.

**15. Severability**

If any term condition or provision contained in this Agreement shall be held to be invalid unlawful or unenforceable to any extent such term condition or provision shall (save where it goes to the root of this Agreement) not affect the validity legality or enforceability of the remaining parts of this Agreement.

**16. Waiver**

No term or provision of this Agreement shall be considered as waived by any party to this Agreement unless a waiver is given in writing by that party.

**17. Non-Assignability**

This Agreement is personal to the parties and none of them shall assign sub-contract or otherwise deal with their rights or obligations without the prior written consent of the others.

**18. Governing Law and Jurisdiction**

This Agreement shall be governed by the laws of England and Wales and the parties submit to the exclusive jurisdiction of the courts of England and Wales.

## Schedule 1

1. The outdoor sports areas and facilities to be made available for Community Use shall comprise the playing pitches and Multi Use Games Area (as shown on the plan below). In the summer if a cricket wicket is viable given condition of grass at that time then the Management Cttee will set a price for this having regard to other local facilities.



2. The indoor sports hall and activity studio together with ancillary facilities such as toilets and changing rooms to be made available for Community Use are as shown on the plans below: -



## Schedule 2

### Arrangements for Community Use

#### 1. Users

- 1.1 The Sports Facilities shall be made available for Community Use.

#### 2. Hours of Access

##### TERM-TIME

Community Use	Mon - Fri: 5.30pm to 8.30pm
	Sat: 9am – 1pm

##### SCHOOL HOLIDAYS

Lettings during the School Holidays is not something the school wish to offer initially as not staffed for this, however if demand is clearly identified then the School undertakes to review this.

NB Subject to the School providing appropriate justification to the management committee, the School may restrict the use of grassed sports areas to protect them to fit in with the school requirements.

#### 3. Pricing

- 3.1 A policy of affordable pricing shall apply to maximise Community Use and in accordance with the aims of this Agreement. Prices shall be not be materially different to those for similar local authority run facilities and local School facilities in the vicinity of **Twickenham**.

##### Turing House School

- 3.2 These prices are set at **2020 / 2021** rates as benchmarked against local facilities.
- 3.3 Prices for subsequent years when the Sports facilities are available for hire will be reviewed by the Management Committee and will be set for each academic year i.e. 1 Sept to 31.Aug.

<b>Facility</b>	<b>Mon – Fri / hour. Excl. Vat  £ p</b>	<b>Saturday / hour Excl. Vat  £ p</b>	<b>Comment</b>
Outdoor Sports facilities (Pitch)			Football or Rugby Pitch
Multi Use Games Area			This is for the whole MUGA. Where a Community Group wishes to book e.g. one netball court then the rate will be 33.3% of the whole MUGA rate.
Indoor Sports Hall			This is for the whole Sports Hall. Where a Community Group wishes to book e.g. one badminton court then the rate will be 33.3% of the whole Sports hall rate.
Indoor Activity Studio			

Note a 10% discount on the applicable hourly rate is offered for Block Bookings of all or part Turing House School Sports Facilities.

**London Borough of Richmond operated Facilities** (rates charged will be inserted for year when Agreement is to be completed.)

3.4

<b>Facility</b>	<b>Hampton Sports and Fitness Centre</b>	<b>Teddington Sports Centre (Teddington School)</b>	<b>Whitton Sports and Fitness Centre (Twickenham School)</b>	<b>Comment</b>

	Charge per hour £ p	Charge per hour £ p	Charge per Hour £ p	
Outdoor Sports facilities (Pitch)	N/A	N/A	N/A	Each of these facilities have 3G pitches not grassed pitches
Multi Use Games Area				
5 -a side	Y	N	Y	
Netball	Y	Y	y	Hampton Court is Floodlit
Indoor Sports Hall				
Badminton	Y	Y	Y	
Basketball	Y	Y	Y	
Cricket nets	Y	Y	Y	
5 a side	N	N	Y	
Netball	Y	Y	Y	
Table Tennis	N	Y	Y	Teddington rate is for 45 mins

Volley ball	Y	Y	Y	
Whole Sports hall	Y	Y	Y	
Indoor Activity Studio	N	Y	N	

**Other Local School's Rates will be shown for the year the Agreement is completed.**

- 3.5 The rates charged by local schools for their Sports Facilities are shown in the table below:-

<b>Facility</b>	<b>The Heathland School L.B. Hounslow Charge / Hour Excl. VAT £ P</b>	<b>Reach Academy Feltham L.B. Hounslow Charge / hour Excl. Vat £ p</b>	<b>Richmond College</b>
Outdoor Sports facilities (Pitch)	N/A	4G on Sports hall roof	Y
Outdoor netball court	Y	Y (Floodlit)	
Indoor Sports Hall	Y	Y (4 Court)	Y
Badminton	Y	Y	



Court			
Basket ball	N	Y	
Football	N	Y	
Netball Court	Y	Y	
Table tennis	N	Y	
Indoor Activity Studio	Side Hall	N	Y (Fitness suite)

#### **4. Booking arrangements**

- 4.1 An easy and accessible advance booking arrangement for Community and Sports Organisations Use including block booking by these organisations shall be established for hire of the Sports Facilities using a standard booking form.
- 4.2 The agreed booking arrangements shall operate as follows: -

It is intended when the School commences hiring of facilities that contact is made with the School's Admin team on **XXXXXX** or email **lettings@turinghouseschool.org.uk**

#### **5. Parking Arrangements**

- 5.1 The School encourages users of the Sports Facilities to use public transport although there is car parking and cycle storage on site.

## **Schedule 3**

### **Management Committee**

#### **Terms of Reference and Constitution**

##### **1. Purpose**

- (a) To monitor progress against agreed aims and targets: programming, usage and financial and to provide regular reports for the stakeholders of the school on those topics.
- (b) To decide on policy issues e.g. pricing, the framework of sports programmes and staffing.
- (c) To ensure effective partnership working between the organisations involved in school community use.

##### **2. Officers**

The Chair shall have the following roles;

- Role of Chair:
  - To direct and control the meetings of the committee.
  - To cast a further vote if necessary, to resolve any tied decision(s).
  - To represent the committee at other meetings and functions as necessary.

A Secretary will be elected by the full committee at the first meeting of each academic year (Sept to August) and will serve for one full year.

- Role of Secretary:
  - To compile and maintain minutes of all meetings.
  - To compile and issue agendas for meetings in timely fashion.
  - To take care of all communications to and from the committee.

### **3. Operation**

- (a) The full committee will convene at least 2 per annum. Additional meetings will be held as considered necessary by a simple majority of members.
- (b) The School will resolve day to day issues. Whilst the School has full authority for any decisions it must adhere to the policy framework established by the full committee.
- (c) Day to day operation will be the responsibility of the School.
- (d) Sub-groups/committees may be formed by the Management Committee if considered necessary or desirable.

### **4. Reporting**

- (a) Minutes of committee meetings will be maintained.
- (b) A formal annual report, as set out in paragraph 9.2 and 9.3 of this Agreement, will be issued to cover policy, financial and sports development matters.
- (c) Other specific reports requested by other committee members when possible.

**IN WITNESS** whereof the hands of the parties or their duly authorised representatives the day and year first above written.

*[Amend as appropriate]*

Signed by .....

Duly authorised by the School

Signed by .....

Duly authorised by the Council

DRAFT



# Turing House Academy



This report provides an analysis and evaluation of the likely visual impact of the proposed development on the Metropolitan Open Land adjacent to Sempervirens Nursery, Whitton.

Methods of analysis include desktop and field studies. Both summer and winter assessments were undertaken to reduce the reliance on negative screening to mitigate potential impact on views.

All results were recorded in line with the Guidelines for Landscape and Visual Impact Assessment (GLVIA3) published by the Landscape Institute and the Institute of Environmental Management & Assessment (IEMA).

As a result of the proposed development there would be some minor and moderate impact on views of the site from Hospital Bridge Road. Low impact mitigation measures, such as planting of trees could be considered that help fill the gaps in the line of vegetation particularly along Hospital Bridge Road and therefore further mitigate the impact upon receptors recorded as more sensitive.

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In addition to the above, at the request of the Local Planning Authority (LPA) the report also appraises a potential 4 storey option from Hospital Bridge Road as an exercise to demonstrate the likely impacts from the east.



4.1 VIEWPOINT LOCATION PLAN

- Viewpoint 1** - View from the Bridge on Hospital Bridge Road looking South West.
- Viewpoint 2** - View from the Bridge on Hospital Bridge Road looking due West.
- Viewpoint 3** - View from Hospital Bridge Road looking North West.
- Viewpoint 4** - View from Heathfield Recreation Ground looking north.
- Viewpoint 5** - View from Borough Cemetery looking due east
- Viewpoint 6** - View from Redfern Avenue looking south east

LEGEND

 Viewpoint location



Viewpoint Location Plan





Viewpoint Location Plan

**Viewpoint 1 - Summer:** View from the Bridge on Hospital Bridge Road looking South West

Distance from site boundary: 12m

Direction: South West

Receptor: Road users from Hospital Bridge Rd

Date taken : 16/10/2018

Weather conditions: Bright

Season taken: Autumn

Reason Chosen: This view represents a view of the site from the highway users travelling south.

Existing View: The bridge, existing vegetation and rail link frame the view. The nursery vegetation and operations make up the view of the site in the middle ground. Existing mature vegetation of the cemetery forms the skyline in the distance.

Proposed View: Although set back from the road and partially screened by the boundary trees along Hospital Bridge Rd, the school building will form the basis of the proposed view. The green wall to the north elevation will soften the impact of the corner of the proposed building and continue the rhythm of green infrastructure to the northern boundary.

Sensitivity of Receptor: Low

Magnitude of Change: High

Significance of Effect: **Moderate**

#### Additional 4 Storey Assessment

4 Storey Option: With the addition of the 4th storey the proposed school building protrudes above the tree line. Windows that were broken up by existing and proposed vegetation become very prominent and potentially obtrusive.



Viewpoint 1 - Existing Summer View



Viewpoint 1 - Proposed Summer View



Viewpoint 1 - Proposed 4 Storey Option Summer View





Viewpoint Location Plan

**Viewpoint 1 - Winter:** View from the Bridge on Hospital Bridge Road looking South West

Distance from site boundary: 12m

Direction: South West

Receptor: Road users from Hospital Bridge Rd

Date taken : 07/03/2019

Weather conditions: Bright

Season taken: Winter

**Existing View:** The bridge, existing vegetation and rail link frame the view. The nursery vegetation and operations make up the view of the site in the middle ground. Existing mature vegetation of the cemetery forms the skyline in the distance.

**Proposed View:** The structure of the winter vegetation partially screen the development from Hospital Bridge road, however the east and northern vegetation become more visible in comparison with the summer view.

Sensitivity of Receptor: Low

Magnitude of Change: High

Significance of Effect: **Moderate**

#### Additional 4 Storey Assessment

With the addition of the 4th storey the proposed school become a much larger mass in the view, however the length of the north elevation will be reduced and therefore affording long distance views from this location.



Viewpoint 1 - Existing Summer View



Viewpoint 1 - Proposed Summer View



Viewpoint 1 - Proposed 4 Storey Option Summer View





Viewpoint Location Plan

**Viewpoint 2 - Summer:** View from Hospital Bridge Road looking due West

Distance from site boundary: 8m  
 Direction: North north-east  
 Receptor: Pedestrian's and highway users  
 Date taken : 16/10/2018  
 Weather conditions: Bright  
 Season taken: Autumn

Reason Chosen: This view again represents a view of the site from the highway.

Existing View: The existing vegetation to Hospital Bridge Road forms the short distant foreground views. A gap in this green infrastructure reveals a long distance view of the Hounslow Heath Estate residential block in Hounslow.

Proposed View: The proposed development sits directly behind the existing vegetation penetrating the top of the trees and shrubs in the foreground to form a new view. The school will create a new skyline from this location and obstruct any distant views afforded from this location.

Sensitivity of Receptor: Low  
 Magnitude of Change: Medium  
 Significance of Effect: **Minor**

#### Additional 4 Storey Assessment

4 Storey Option: With the addition of the 4th storey the proposed school building rises above the existing vegetation and become a more visible feature from this location and furthermore redefining the skyline.



Viewpoint 2 - Existing Summer View



Viewpoint 2 - Proposed Summer View



Viewpoint 2 - Proposed 4 Storey Option Summer View





Viewpoint Location Plan

**Viewpoint 2 - Winter:** View from Hospital Bridge Road looking due West

Distance from site boundary: 8m  
Direction: North north-east  
Receptor: Pedestrian's and highway users  
Date taken : 07/03/2019  
Weather conditions: Bright  
Season taken: Winter

**Existing View:** The existing vegetation to Hospital Bridge Road forms the short distant foreground views. A gap in this green infrastructure reveals a long distance view of the Hounslow Heath Estate residential block in Hounslow. Further to the summer views the boundary to the cemetery is now partially visible.

**Proposed View:** In the winter view the proposed development becomes more visible as the building sits behind the existing vegetation. A combination of topography and a mix of evergreen and deciduous vegetation still provide screening to the lower floors.

Sensitivity of Receptor: Low  
Magnitude of Change: Medium  
Significance of Effect: **Minor**

**Additional 4 Storey Assessment**

The 4 storey massing option will become a large mass from this location and will start to break the skyline of existing vegetation. The development will become less congruous with its setting and the east elevation is increased.



Viewpoint 2 - Existing Winter View



Viewpoint 2 - Proposed Winter View



Viewpoint 2 - Proposed 4 Storey Option Winter View





Viewpoint Location Plan

**Viewpoint 3 - Summer:** View from Hospital Bridge Road looking North West

Distance from site boundary: 8m  
Direction: North West  
Receptor: Residential and road users from Hospital Bridge Rd  
Date taken : 16/10/2018  
Weather conditions: Bright  
Season taken: Autumn

Reason Chosen: This represents a view of the site from the highway and a representational view of the residential property at 128a Montrose Avenue.

Existing View: The existing semi-mature vegetation planted to the top of the embankment along Hospital Bridge road forms the basis of the existing view from this location on Hospital Bridge Road. Sempervirens nursery is clearly visible from this location through the existing green infrastructure.

Proposed View: The semi-mature existing vegetation to Hospital Bridge Road partially screen proposed views of the development. The proposed building rises from behind the tops of the shrubs and trees to form a new skyline, however the view is softened by the existing and proposed vegetation.

Sensitivity of Receptor: High  
Magnitude of Change: Medium  
Significance of Effect: **Moderate**

**Additional 4 Storey Assessment**

The proposed building will not break the skyline of the existing vegetation however will be a larger mass in the view and therefore more prominent.



Viewpoint 3 - Existing Summer View



Viewpoint 3 - Proposed Summer View



Viewpoint 3 - Proposed 4 Storey Option Summer View





Viewpoint Location Plan

**Viewpoint 3 - Winter:** View from Hospital Bridge Road looking North West

Distance from site boundary: 8m  
Direction: North West  
Receptor: Residential and road users from Hospital Bridge Rd  
Date taken : 07/03/2019  
Weather conditions: Bright  
Season taken: Winter

**Existing View:** The existing semi-mature vegetation planted to the top of the embankment along Hospital Bridge road forms the basis of the existing view from this location on Hospital Bridge Road. Sempervirens nursery is clearly visible from this location.

**Proposed View:** The semi-mature existing vegetation to Hospital Bridge Road will still partially screen proposed views of the development. The proposed building rises from behind the tops of the shrubs and trees to form a new skyline. The car park for Sempervirens will no longer be visible from this view as it will be replaced with the entrance route to the school.

Sensitivity of Receptor: High  
Magnitude of Change: Medium  
Significance of Effect: **Moderate**

**Additional 4 Storey Assessment**

The eastern elevation of the proposed building will become a much larger element of the view from this location. The 4th storey windows will become an unbroken run and therefore give the impression of overlooking for residents on Montrose Avenue.



Viewpoint 3 - Existing Winter View



Viewpoint 3 - Proposed Winter View



Viewpoint 3 - Proposed 4 Storey Option Winter View





Viewpoint 4 - Existing Summer View



Viewpoint 4 - Proposed Summer View

**Viewpoint 4 - Summer:** View from Heathfield Recreation Ground looking north.

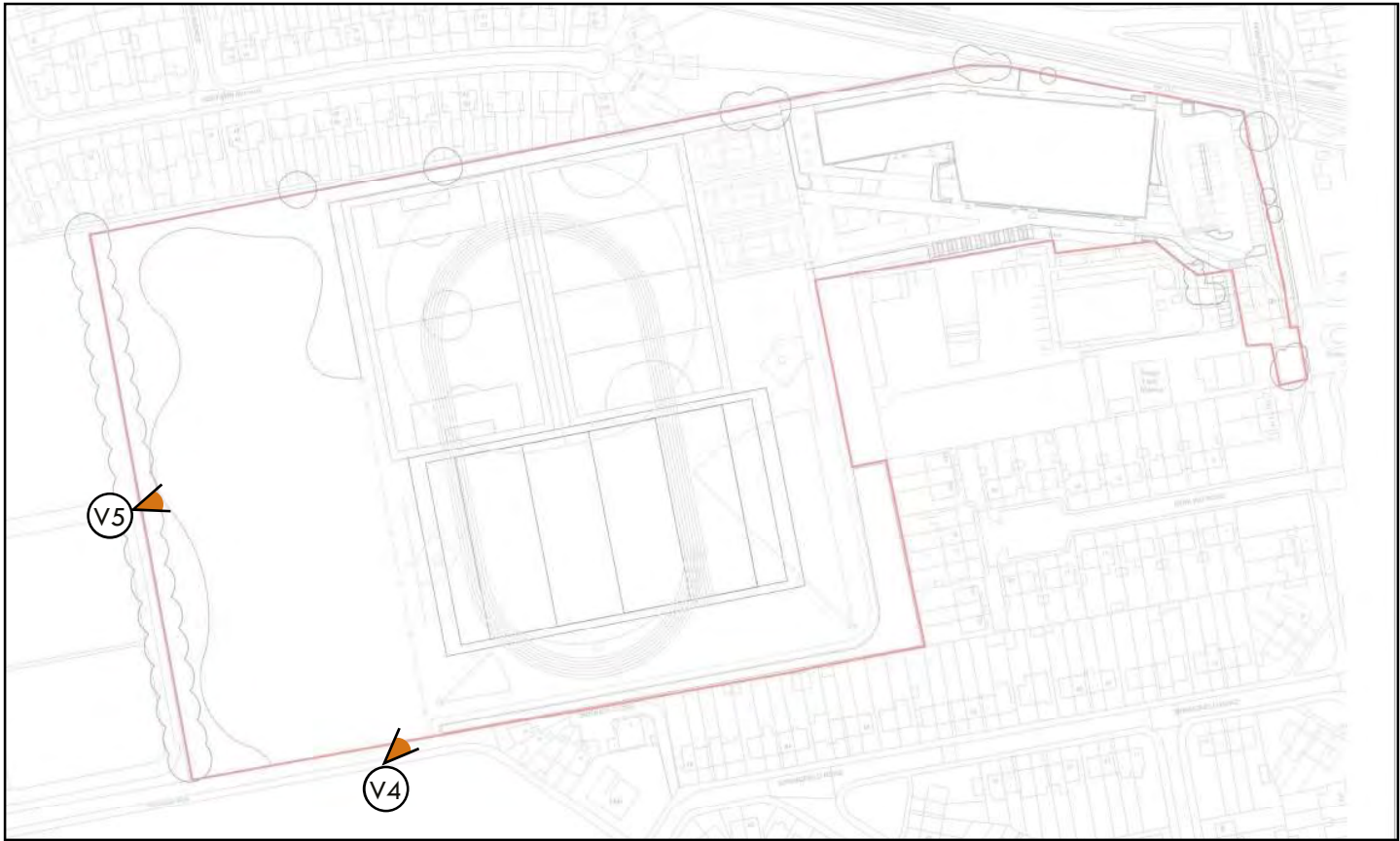
Distance from site boundary: 15m  
Direction: North  
Receptor: Recreational  
Date taken: 16/10/2018  
Weather conditions: Bright  
Season taken: Autumn

Reason Chosen: This viewpoint is located along the public footpath along the northern boundary of Heathfield Recreation Ground and therefore affect users of the public open space.

Existing View: Existing mature avenue tree planting within the recreation ground partially obscures the open view into the site. Unimproved grass land forms the middle ground and properties to Redfern Avenue from the skyline. Sempervirens nursery is visible to the east of the view but is congruous with its setting.

Proposed View: Boundary planting to the proposed sports pitches will obscure views into the site. Any long views into the development footprint of the proposals will be screened from this location.

Sensitivity of Receptor: Low  
Magnitude of Change: Negligible  
Significance of Effect: **Negligible**



Viewpoint Location Plan





Viewpoint 4 - Existing Winter View



Viewpoint 4 - Proposed Winter View

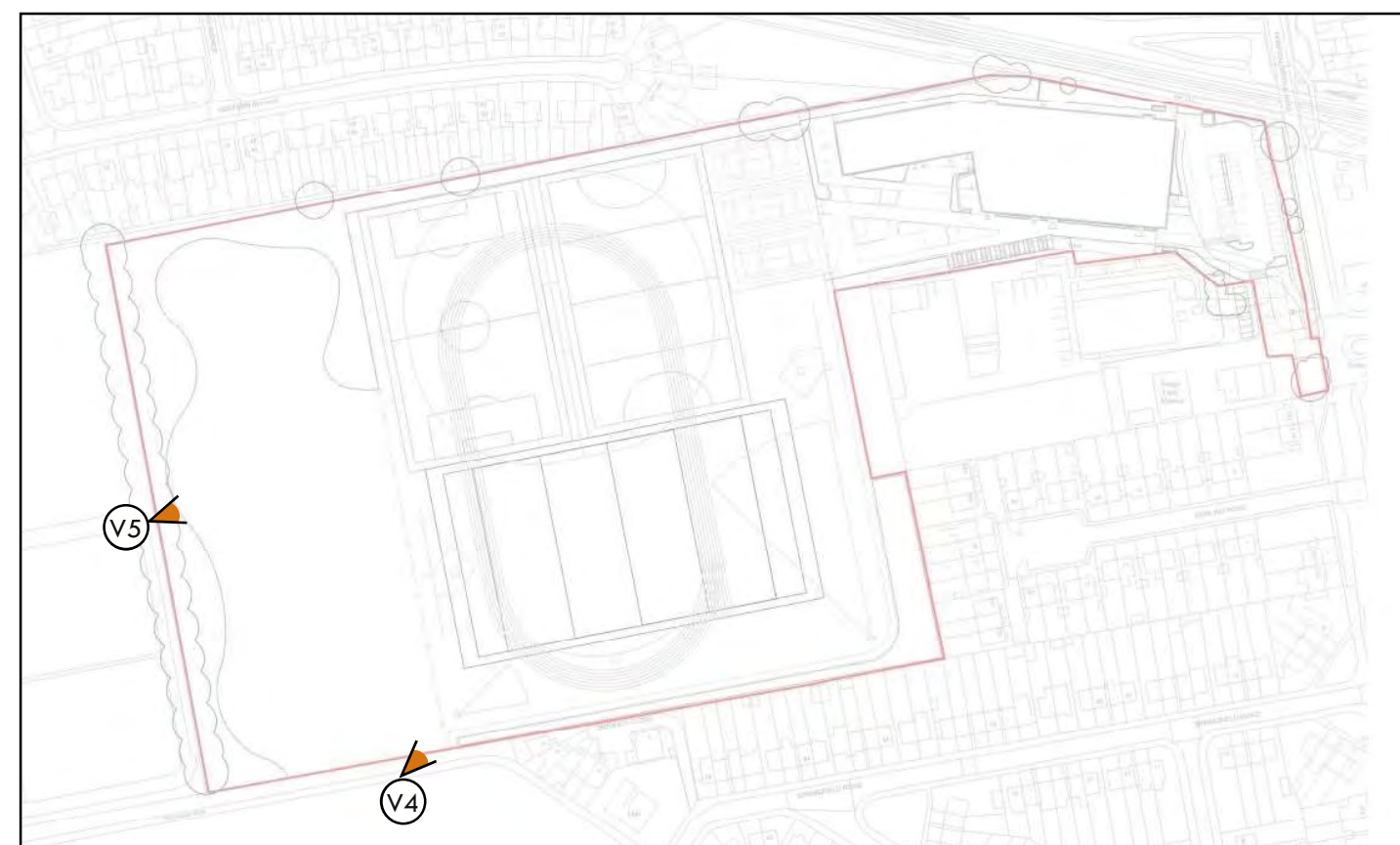
**Viewpoint 4 - Winter:** View from Heathfield Recreation Ground looking north.

Distance from site boundary: 15m  
 Direction: North  
 Receptor: Recreational  
 Date taken: 07/03/2019  
 Weather conditions: Bright  
 Season taken: Winter

**Existing View:** Existing mature avenue tree planting within the recreation ground partially obscures the open view into the site. Unimproved grass land forms the middle ground and properties to Redfern Avenue from the skyline. Sempervirens nursery is visible to the east of the view but is congruous with its setting.

**Proposed View:** Boundary planting to the proposed sports pitches will partially obscure views into the site. Any long views into the development footprint of the proposals will be screened from this location.

Sensitivity of Receptor: Low  
 Magnitude of Change: Negligible  
 Significance of Effect: **Negligible**



Viewpoint Location Plan





Viewpoint 5 - Existing Summer View



Viewpoint 5 - Proposed Summer View

**Viewpoint 5 - Summer:** View from Borough Cemetery looking due east

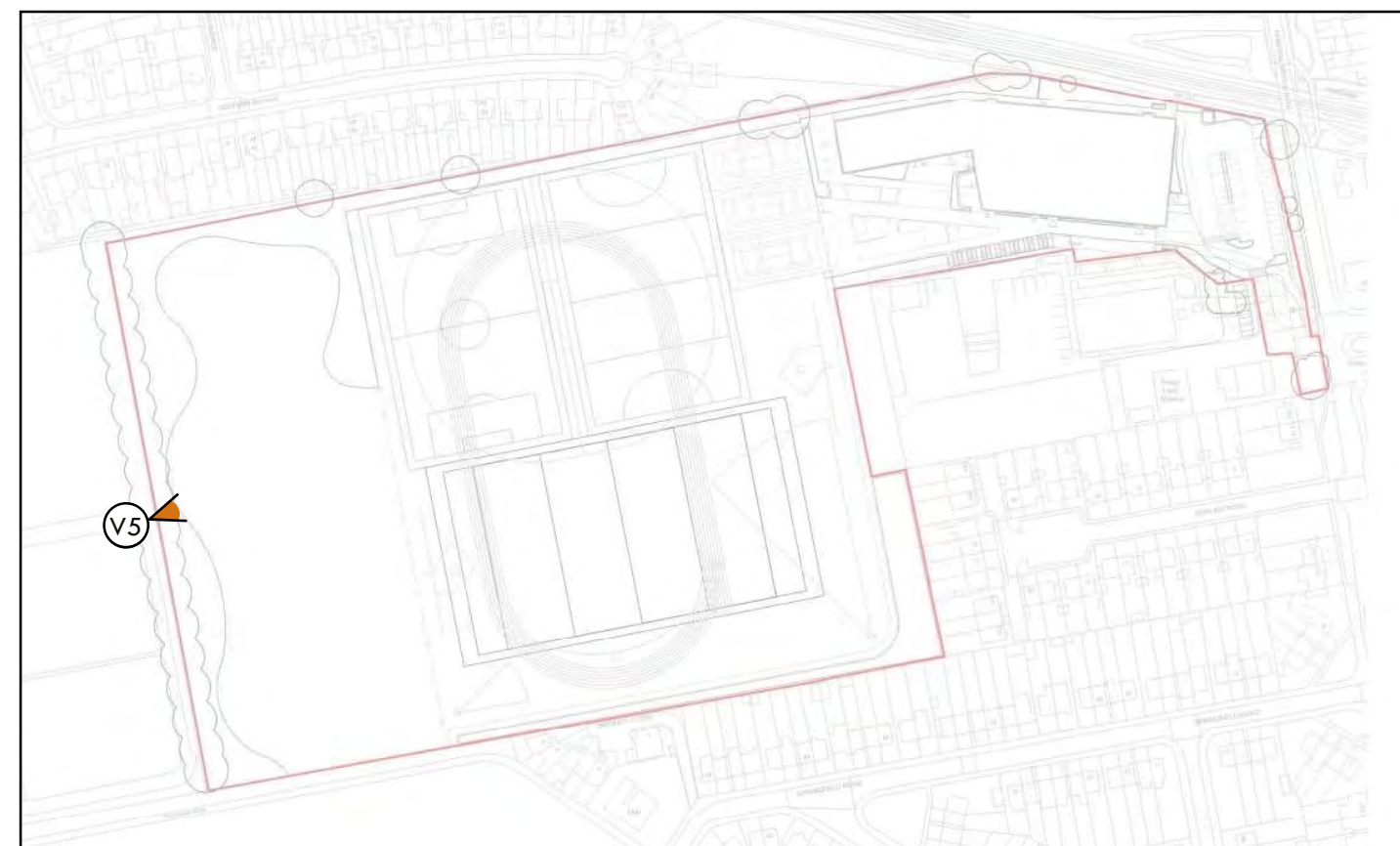
Distance from site boundary: 5m  
 Direction: East  
 Receptor: Private users of the cemetery  
 Date taken: 16/10/2018  
 Weather conditions: Bright  
 Season taken: Autumn

Reason Chosen: Requested by LPA

Existing View: Uninterrupted views through the existing mature boundary trees over the existing unimproved grassland of the MOL towards Sempervirens Nursery in the distance. To the right, the tree lined boundary of Heathfield Recreation Ground is also visible.

Proposed View: Planting associated with the ecological/habitat improvements form the foreground and partially interrupt any long views towards the proposed development footprint. The building, located to the right on the horizon forms a new skyline, however the relative distance and urban context means the change will not be discernible.

Sensitivity of Receptor: Low  
 Magnitude of Change: Negligible  
 Significance of Effect: **Negligible**

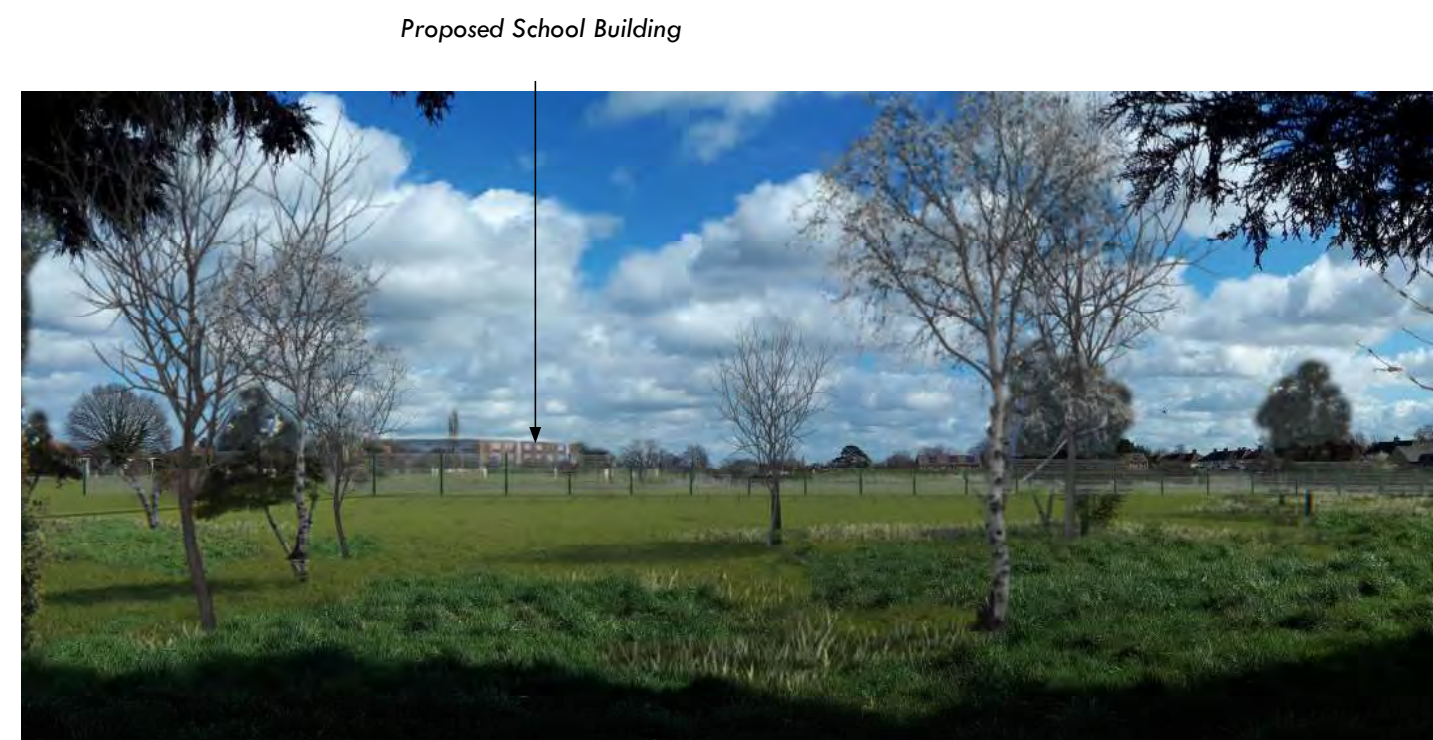


Viewpoint Location Plan





Viewpoint 5 - Existing Winter View



Viewpoint 5 - Proposed Winter View

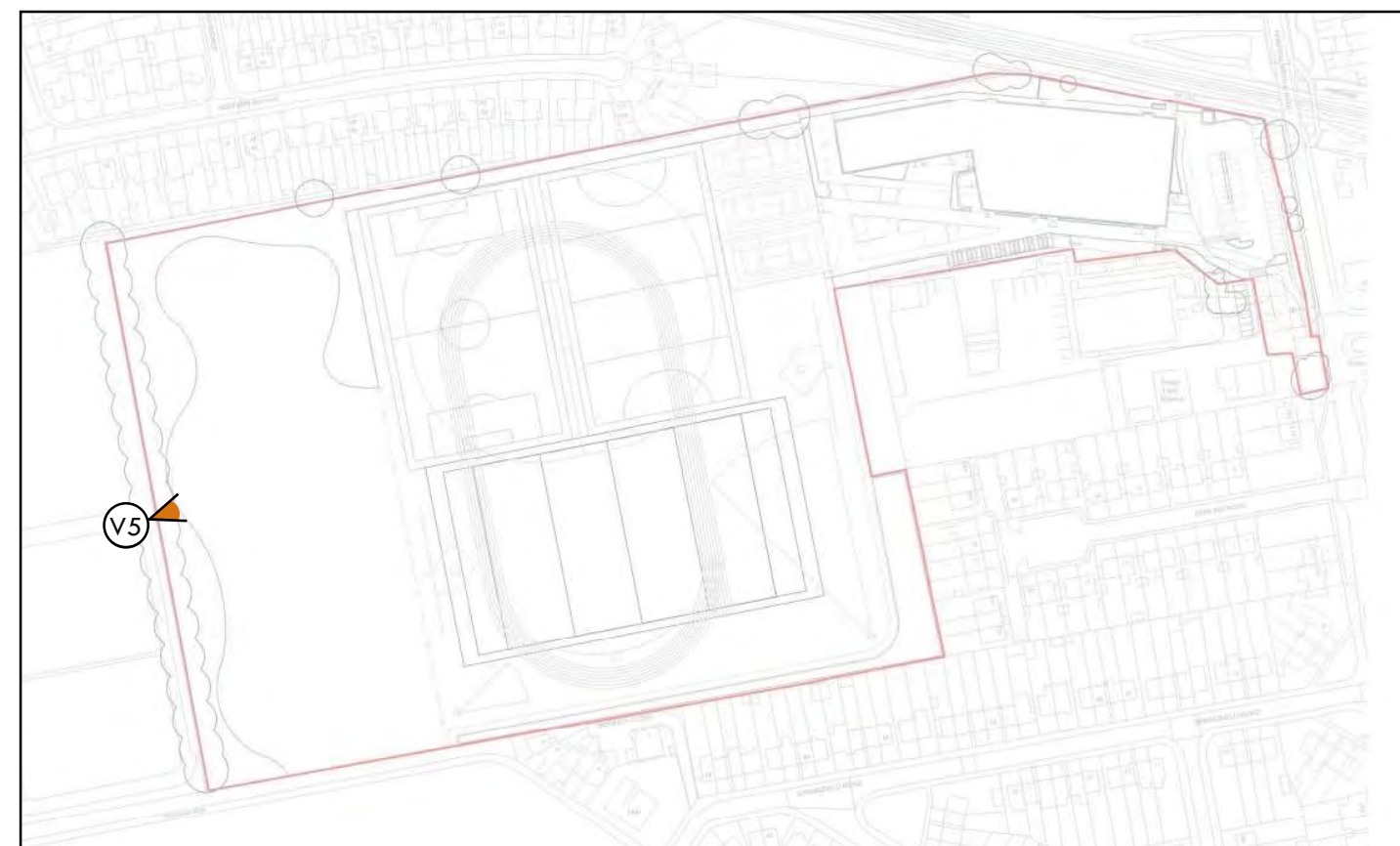
**Viewpoint 5 - Winter:** View from Borough Cemetery looking due east

Distance from site boundary: 5m  
 Direction: East  
 Receptor: Private users of the cemetery  
 Date taken: 07/03/2019  
 Weather conditions: Bright  
 Season taken: Winter

**Existing View:** Uninterrupted views through the existing mature boundary trees over the existing unimproved grassland of the MOL towards Sempervirens Nursery in the distance. To the right, the tree lined boundary of Heathfield Recreation Ground is also visible.

**Proposed View:** Planting associated with the ecological/habitat improvements form the foreground and partially interrupt any long views towards the proposed development footprint. The building, located to the right on the horizon forms a new skyline, however the relative distance and urban context means the change will not be discernible.

Sensitivity of Receptor: Low  
 Magnitude of Change: Negligible  
 Significance of Effect: **Negligible**



Viewpoint Location Plan





Viewpoint 6 - Existing Summer View



Viewpoint 6 - Proposed Summer View

**Viewpoint 6 - Summer:** View from Redfern Avenue looking south east

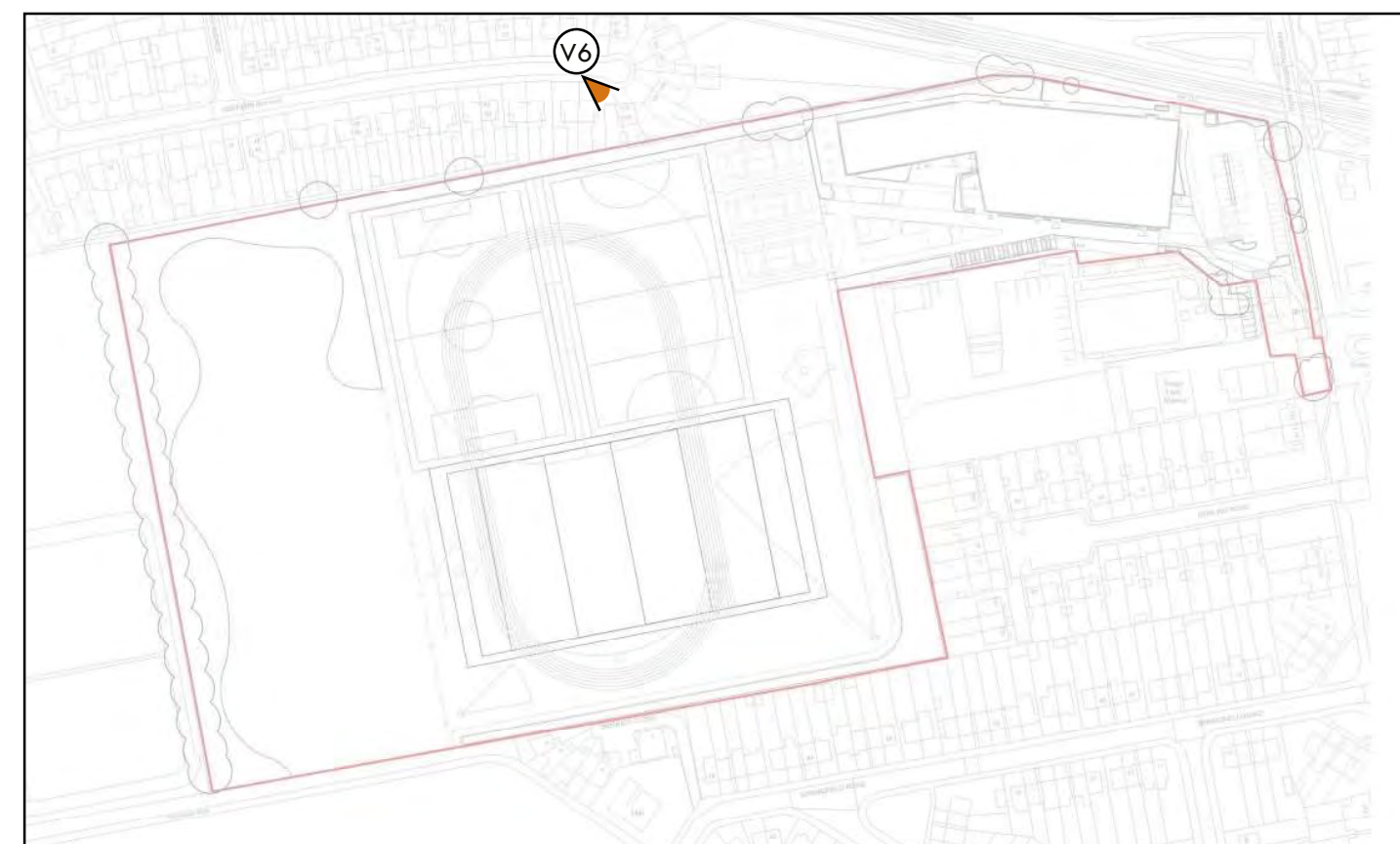
Distance from site boundary: 33m  
 Direction: South east  
 Receptor: Residential  
 Date taken: 16/10/2018  
 Weather conditions: Bright  
 Season taken: Autumn

Reason Chosen: Requested by LPA

Existing View: Post-war 2 storey semi-detached houses form the view at the end of Redfern Avenue cul de sac.

Proposed View: No change

Sensitivity of Receptor: High  
 Magnitude of Change: Negligible  
 Significance of Effect: **None**



Viewpoint Location Plan





Viewpoint 6 - Existing Winter View



Viewpoint 6 - Proposed Winter View

**Viewpoint 6 - Winter:** View from Redfern Avenue looking south east

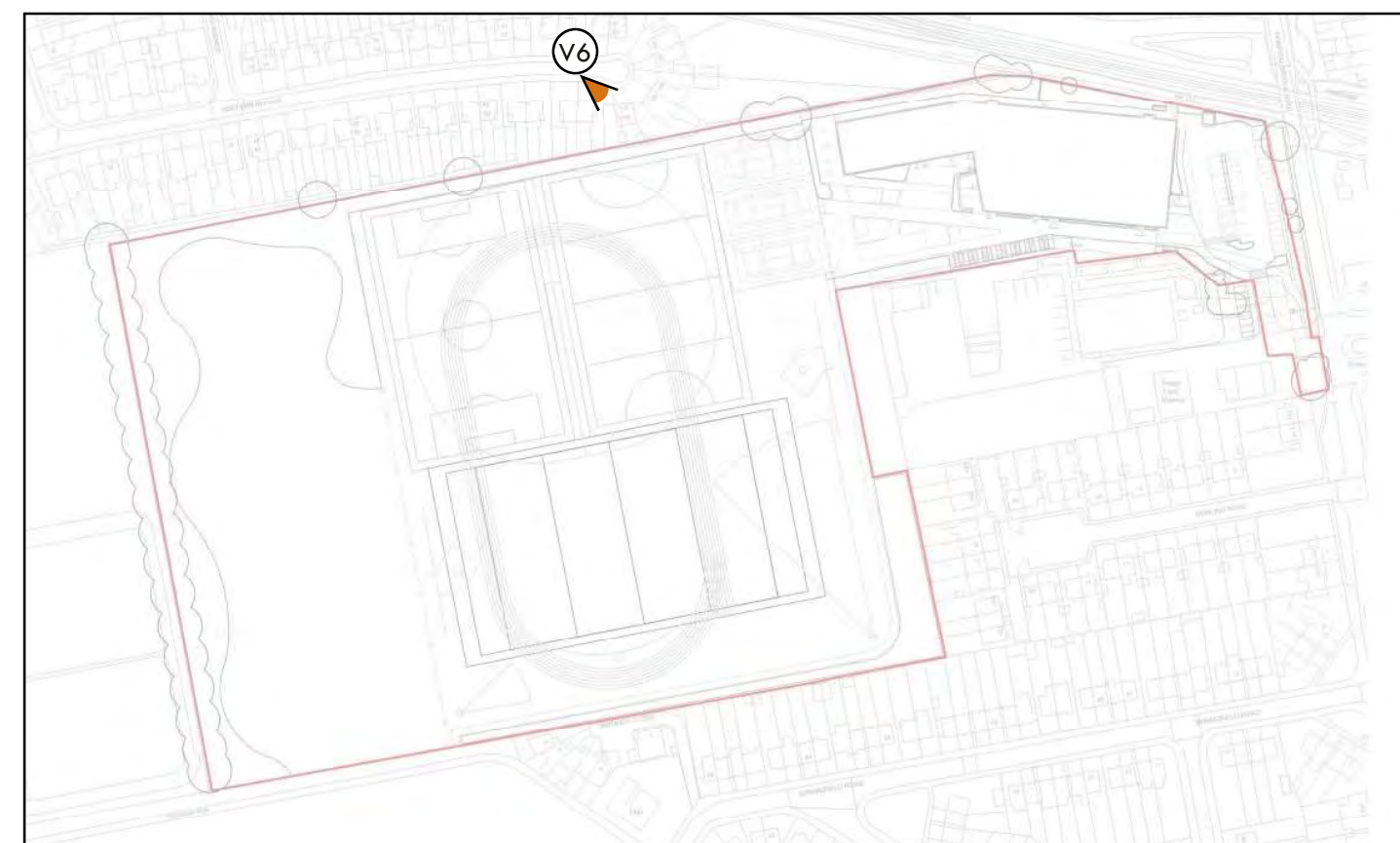
Distance from site boundary: 33m  
 Direction: South east  
 Receptor: Residential  
 Date taken: 07/03/2019  
 Weather conditions: Bright  
 Season taken: Winter

Reason Chosen: Requested by LPA

Existing View: Post-war 2 storey semi-detached houses form the view at the end of Redfern Avenue cul de sac.

Proposed View: No change

Sensitivity of Receptor: High  
 Magnitude of Change: Negligible  
 Significance of Effect: **None**



Viewpoint Location Plan

CONCLUSION

From our combined field and desk-based study, it is apparent that the change on most views into the site will either be moderate adverse or negligible.

The assessment has identified the highway users along Hospital Bridge Road directly opposite the location of the proposed building as the most sensitive receptors. Therefore, to ensure the visual impact of these views into the site from this vantage is mitigated additional tree boundary planting is proposed to restrict views.

The winter views do not offer any significant changes due to the nature of the existing boundary vegetation. The mix of deciduous and evergreen species maintain the partial screening of views.

In the locations from Hospital Bridge Road, as a result of existing topography, the development does not significantly impact upon highway users.

Further mitigation measures could be considered to control these views, especially along the Hospital Bridge Road frontage where views will change the most.

This report finds that the proposals would generally result in only slight changes to views with negligible overall visual impact.

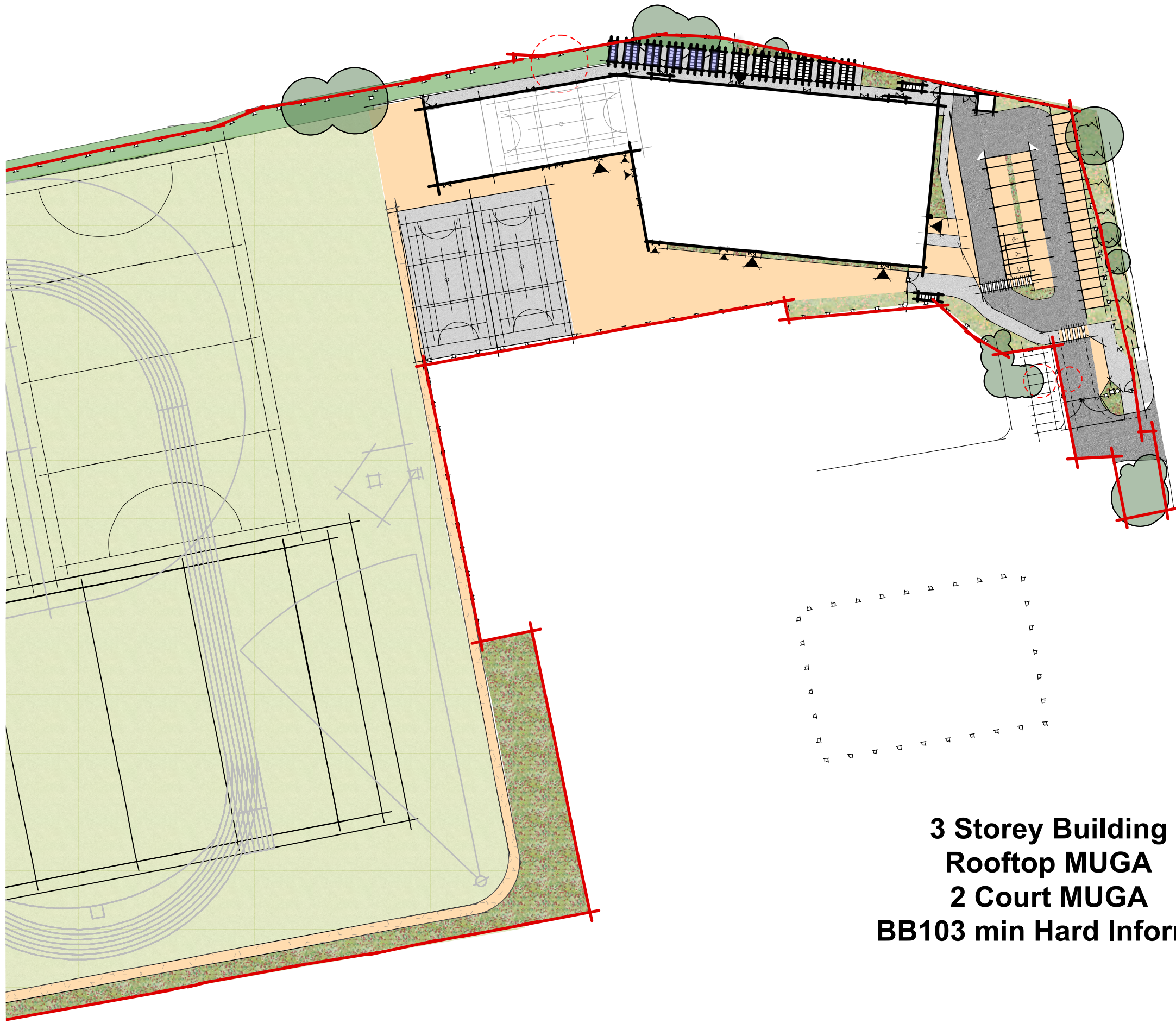
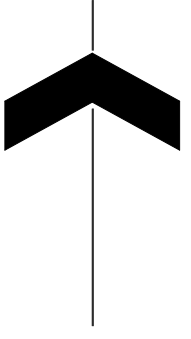
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4 STOREY MASSING OPTION

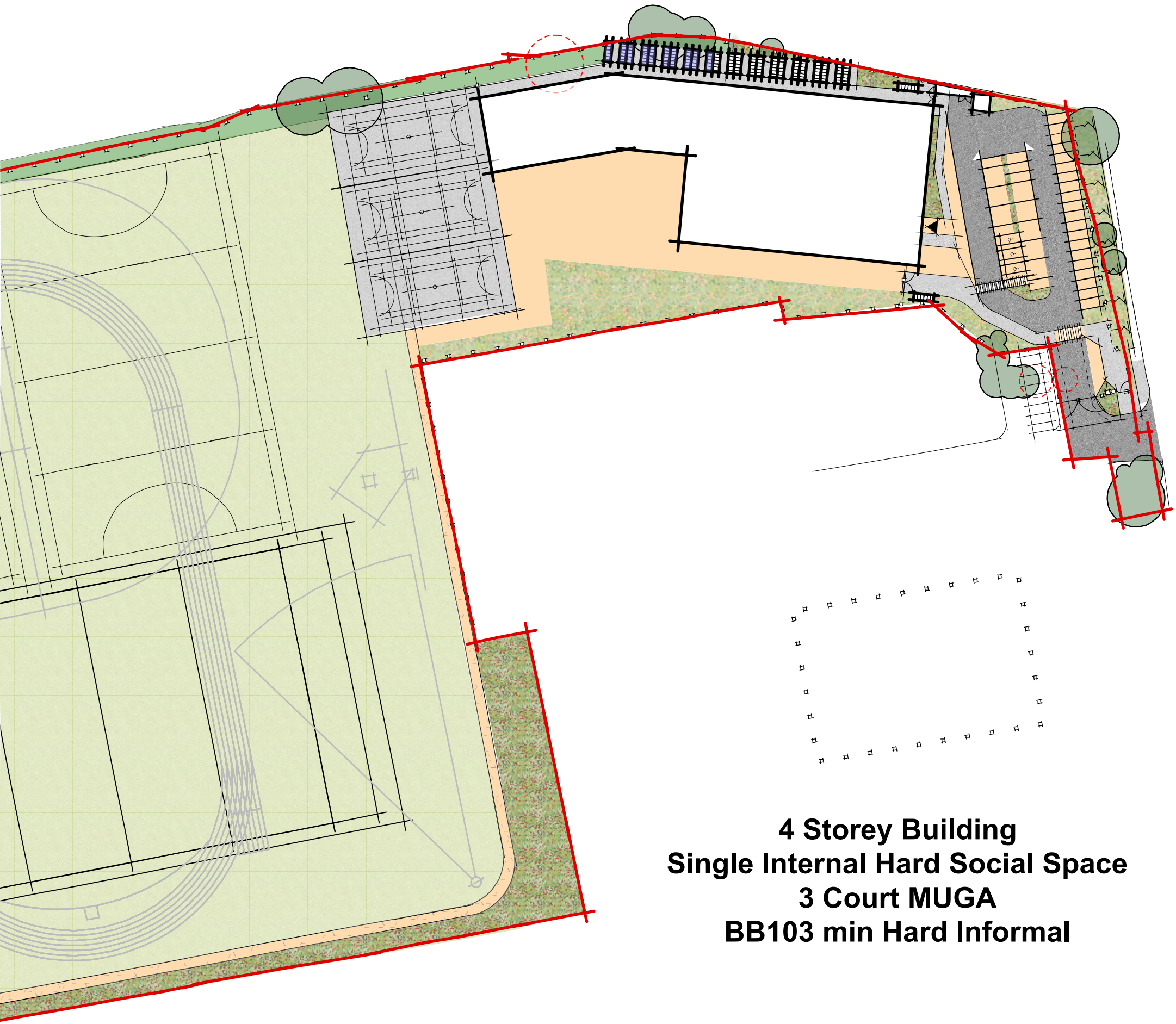
In addition to the summer and winter visual appraisal of the proposed 3 storey development it was requested by the LPA that an outline assessment of a 4 storey option is to be undertaken from Hospital Bridge Rd.

It is conclude that by increasing the mass by an additional floor will increase the impact of view of the proposals from the east as the development will rise above the existing vegetation and become a prominent element in the landscape.

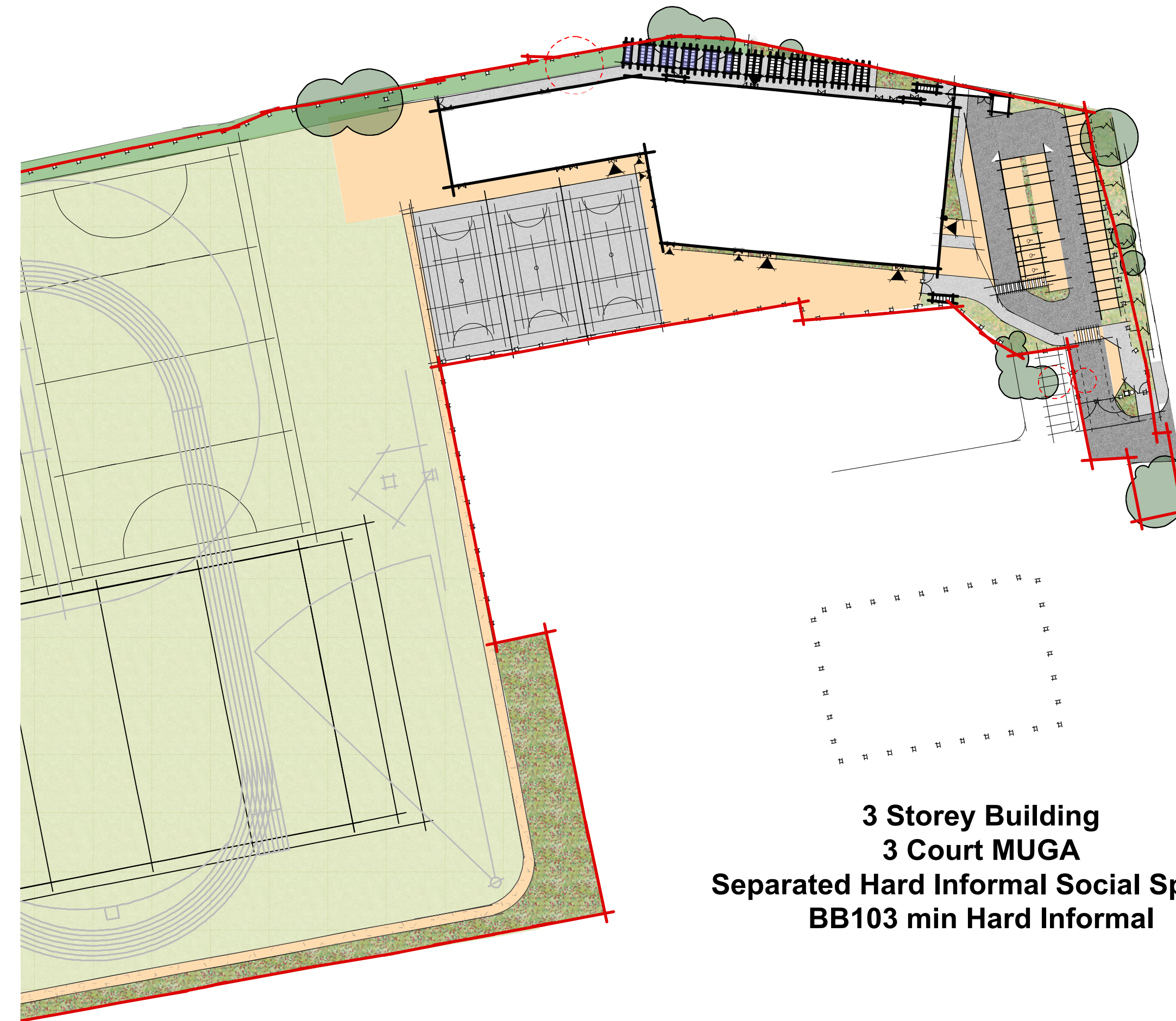




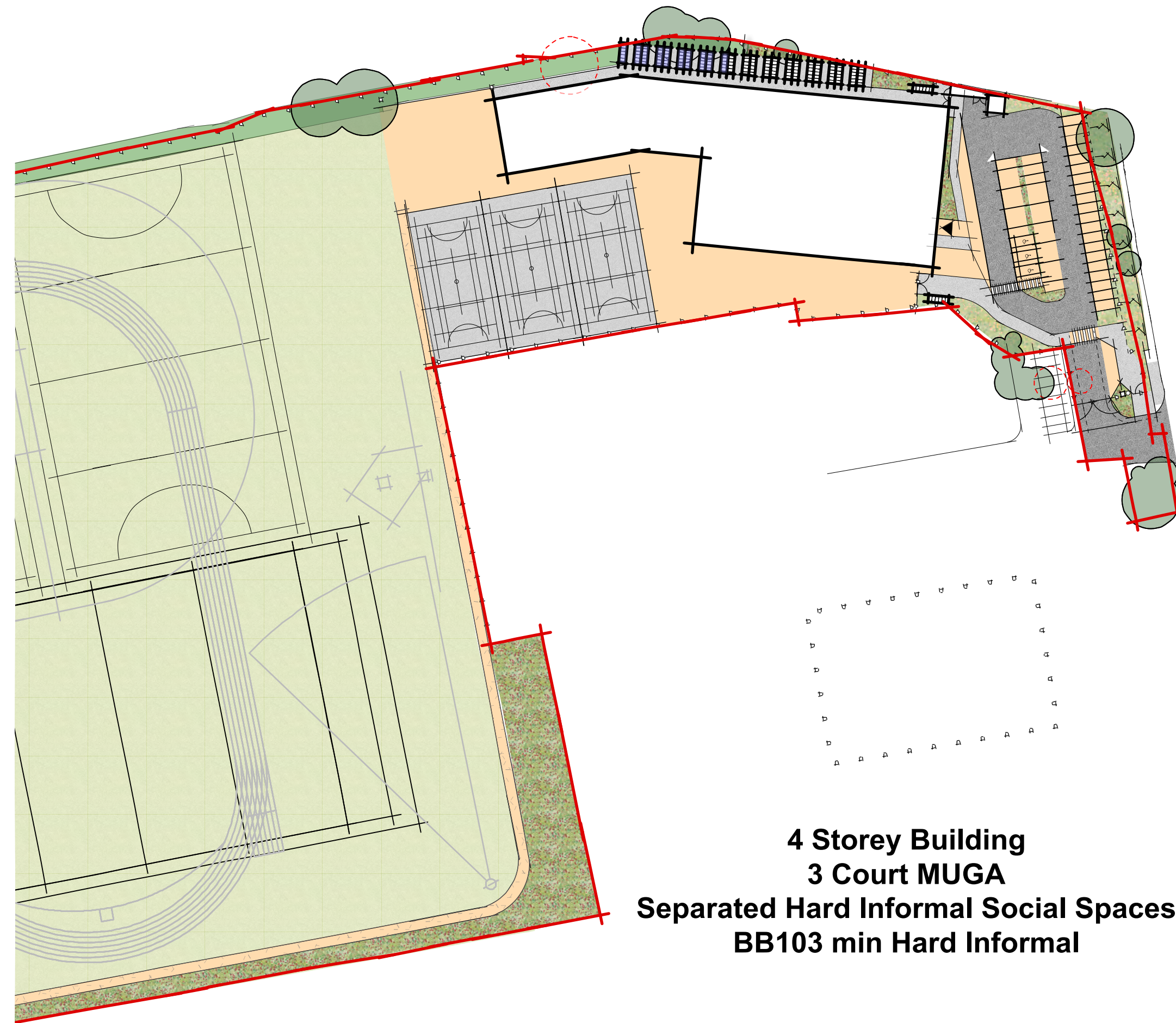
**3 Storey Building  
Rooftop MUGA  
2 Court MUGA  
BB103 min Hard Informal**



**4 Storey Building  
Single Internal Hard Social Space  
3 Court MUGA  
BB103 min Hard Informal**



**3 Storey Building  
3 Court MUGA  
Separated Hard Informal Social Spaces  
BB103 min Hard Informal**



**4 Storey Building  
3 Court MUGA  
Separated Hard Informal Social Spaces  
BB103 min Hard Informal**

**Notes**  
1. Do not scale from this drawing  
2. To be read in conjunction with Project Risk Register REF: XXX  
3. To be read in conjunction with all other Landscape Architect's drawings

**KEY**

ID	RISK	MITIGATION	Date Mitigated
RESIDUAL PROJECT RISKS			

DATE	SUITABILITY	REV	DESCRIPTION OF REVISION	DRAWN BY	APPROVED BY
REVISIONS					

**S1 - FOR INFORMATION**

**ares**  
LANDSCAPE  
ARCHITECTS

Ares Landscape Architects LTD  
Gatecrasher  
51 Eyre Lane  
Sheffield  
S1 4RB  
t: 0114 276 2000  
e: hello@ares.eu.com  
w: ares.eu.com

CLIENT :  
**Bowmer and Kirkland**

PROJECT TITLE :  
**Turing House School**

DRAWING TITLE :  
**MUGA Relocation Options**

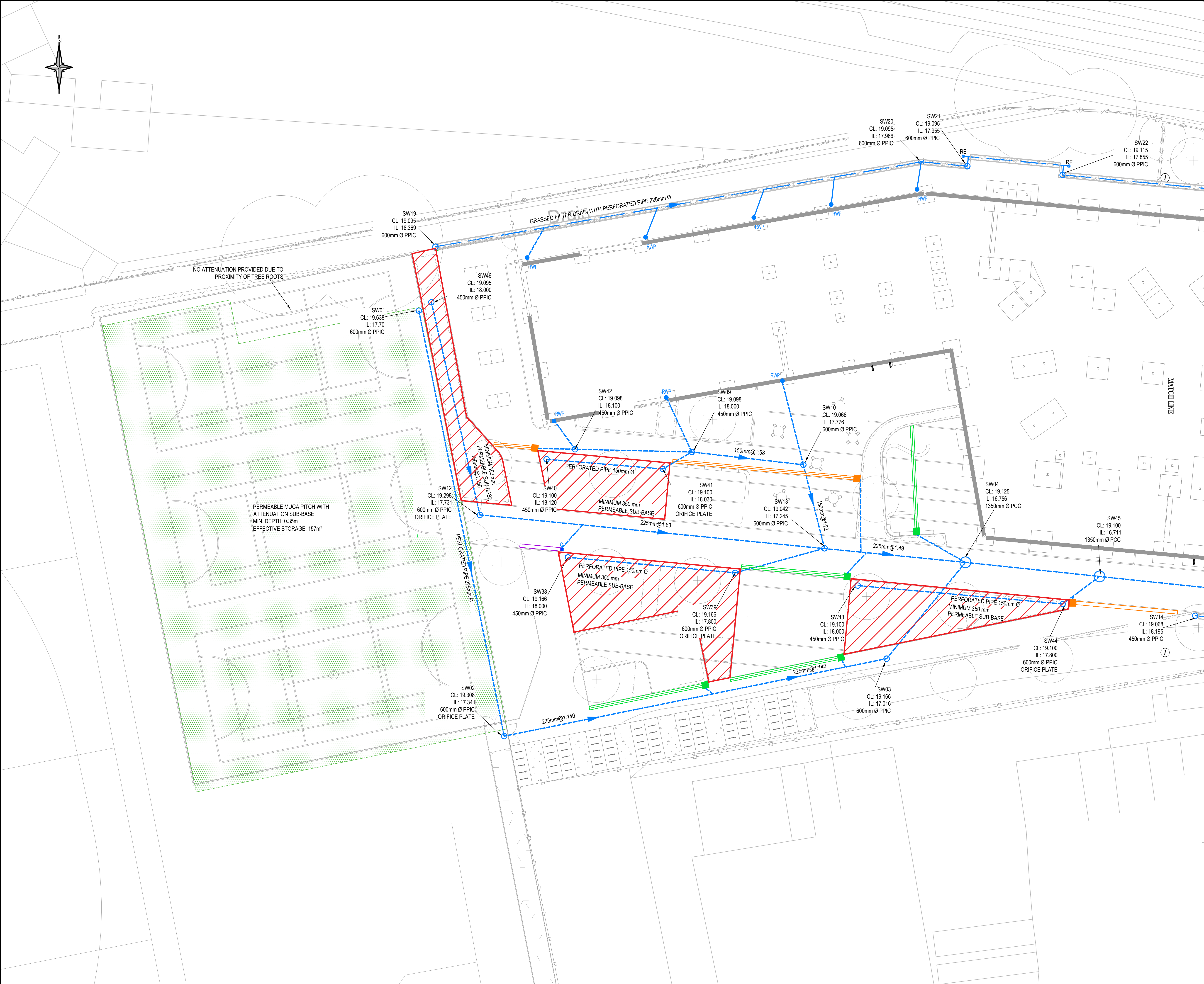
DRAWING SCALE : 1:1000  
DRAWN BY : EC  
PAPER SIZE : A1  
APPROVED BY : LA

DRAWING NUMBER : **ALA456SK05**  
SUITABILITY : **S01**  
REVISION : **P01**









GENERAL NOTES:

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS AND ENGINEERS DRAWINGS AND SPECIFICATIONS.

2. DO NOT SCALE THIS DRAWING. ANY AMBIGUITIES, OMISSIONS AND ERRORS ON DRAWINGS SHALL BE BROUGHT TO THE ENGINEERS ATTENTION IMMEDIATELY. ALL DIMENSIONS MUST BE CHECKED / VERIFIED ON SITE.

3. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.

4. FOR GENERAL NOTES REFER TO DRAWING.

TO BE READ IN CONJUNCTION WITH THE DRAWINGS:

- FS0316-CUR-ZZ-00-DR-C-9200\_SURFACE WATER DRAINAGE LAYOUT KEY PLAN

- FS0316-CUR-ZZ-00-DR-C-9202\_SURFACE WATER DRAINAGE LAYOUT SHEET 1 OF 2

- FS0316-CUR-ZZ-00-DR-C-9201\_FOUL WATER DRAINAGE LAYOUT

KEY

PROPOSED SURFACE WATER DRAIN

PROPOSED SURFACE RAIN WATER PIPE

PROPOSED SURFACE WATER SIPHONIC DRAIN PIPE

PROPOSED SURFACE WATER GULLY

PROPOSED LINEAR DRAINAGE CHANNEL (LDC) WITH A SUMP UNIT AT OUTFALL

PROPOSED GATIC (OR EQUIVALENT) DRAINAGE CHANNEL WITH A SUMP UNIT AT OUTFALL

PROPOSED FILTER DRAIN

PROPOSED ATTENUATION SUB-BASE WITH PERFORATED PIPE

PROPOSED SURFACE WATER ATTENUATION TANK

POWER SUPPLY FOR PUMP STATIONS (TBC)

EXISTING PUBLIC SURFACE WATER SEWER

PROPOSED DISHED CHANNEL (CD2)

PUMP CHAMBER

PROPOSED RAIN GARDEN

DESIGN NOTES:

1. ALL LEVELS ARE IN METRES ABOVE ORDNANCE DATUM.

2. G3 TREES HAVE BEEN ASSUMED TO BE REMOVED - SUBJECT TO NETWORK RAIL APPROVAL TO BE CONFIRMED BY THE LANDSCAPE ARCHITECT

3. LEVELS BY LANDSCAPE ARCHITECT - DETAILED LEVELS FOR CONSTRUCTION MAY RESULT IN CHANGES TO DRAINAGE FEATURES (TYPE AND LOCATION).

4. SIPHONIC DRAIN PIPES LOCATIONS ASSUMED FOR THE PURPOSES OF SURFACE WATER DESIGN. LOCATIONS TO BE CONFIRMED BY AN M&E AT A LATER DESIGN STAGE.

5. ALL MANHOLES/INSPECTION CHAMBERS WITHIN TRAFFICKED HARD STANDING AREAS TO HAVE HEAVY DUTY COVERS (D400 GRADE).

6. RAIN WATER DOWNPIPES LOCATIONS HAVE BEEN BASED ON DRAWING FS0316-STL-XX-00-DR-A-1003-GROUND FLOOR GA PLAN-WEST-P01 ISSUED ON 11.04.18 BY THE ARCHITECT

7. NO INFILTRATION ALLOWED AS PER INFILTRATION TEST RESULTS PROVIDED BY DELTA SIMONS IN APRIL 2018.

8. CONNECTION TO THE EXISTING SURFACE WATER PUBLIC SEWER SUBJECT TO SECTION 106 AGREEMENT WITH THAMES WATER BY CONTRACTOR.

9. DISCHARGE RATE BASED ON GREENFIELD RUNOFF RATES.

10. ATTENUATION VOLUME BASED ON 100 YEARS +40%CC STORM EVENT.

11. SURFACE WATER PUMPING STATION INDICATIVE ONLY. PUMP TO BE DESIGNED BY A SPECIALIST.

12. DESIGN BASED ON LANDSCAPE ARCHITECT DRAWINGS FS0316-ALA-00-XX-DR-L-0016/0017/0018 ISSUED ON 10.01.19. ANY CHANGES TO THIS DESIGN MAY AFFECT THE SURFACE WATER DRAINAGE PROPOSALS.

03.04.19

ID

BB

14.02.19

ID

AW

22.01.19

BB

AW

22.01.19

JW

BB

22.11.18

ID

RJ

01.08.18

RJ

AW

01.05.18

AS

AW

17.04.18

AS

AW

Rev:

Description:

Date:

By:

Chkd:

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Civils & Structures • Transport Planning • Environmental • Infrastructure • Geotechnical • Conservation & Heritage • Principal Designer

Birmingham • Bristol • Cambridge • Cardiff • Douglas • Dublin • Edinburgh • Glasgow • Kentish • Leeds • Liverpool • London • Manchester • Nottingham

Status:

PLANNING

Project:

TURING HOUSE SCHOOL

Orig Title:

SURFACE WATER DRAINAGE LAYOUT  
SHEET 2 OF 2

Size:

A1

Date:

06.04.18

Drawn By:

AS

Designed By:

AS

Checked By:

AW

Scale:

1:200

Project No:

Originator:

Zone:

Level:

Type:

Discipline:

Category / Number:

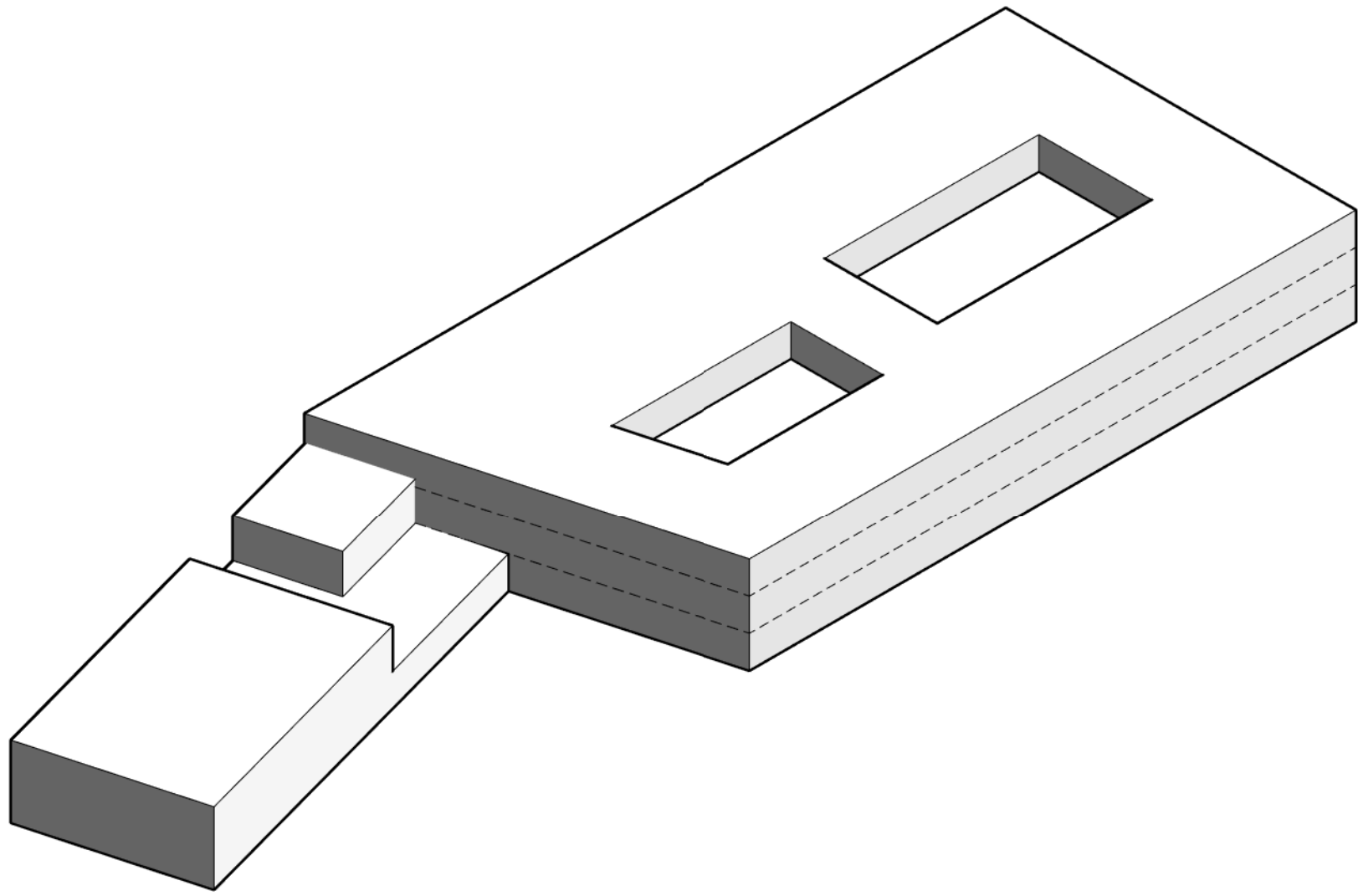
Rev:

FS0316 - CUR - ZZ - 00 - DR - C - 9203

-P08

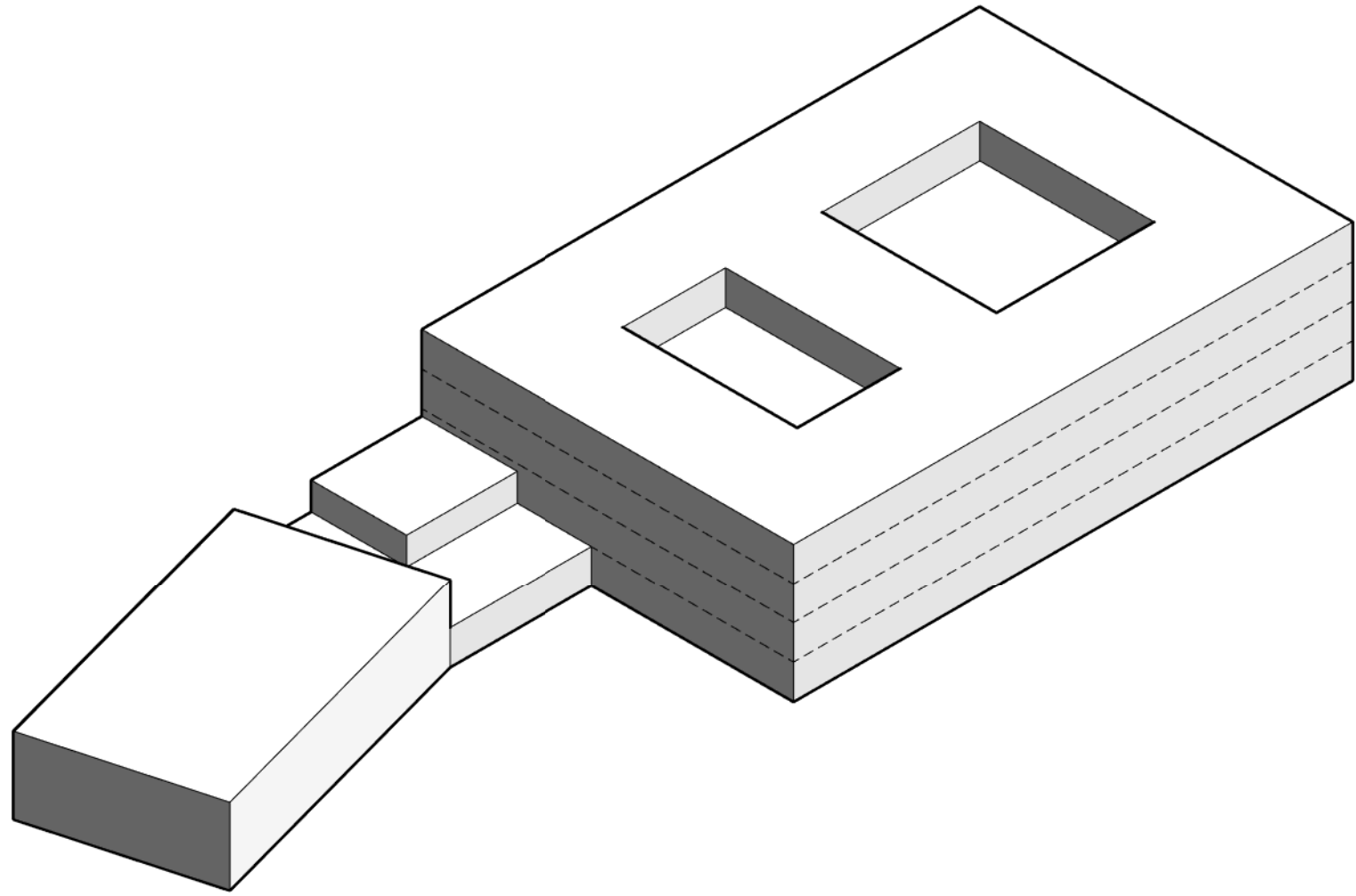


3 Storey Submitted Proposal

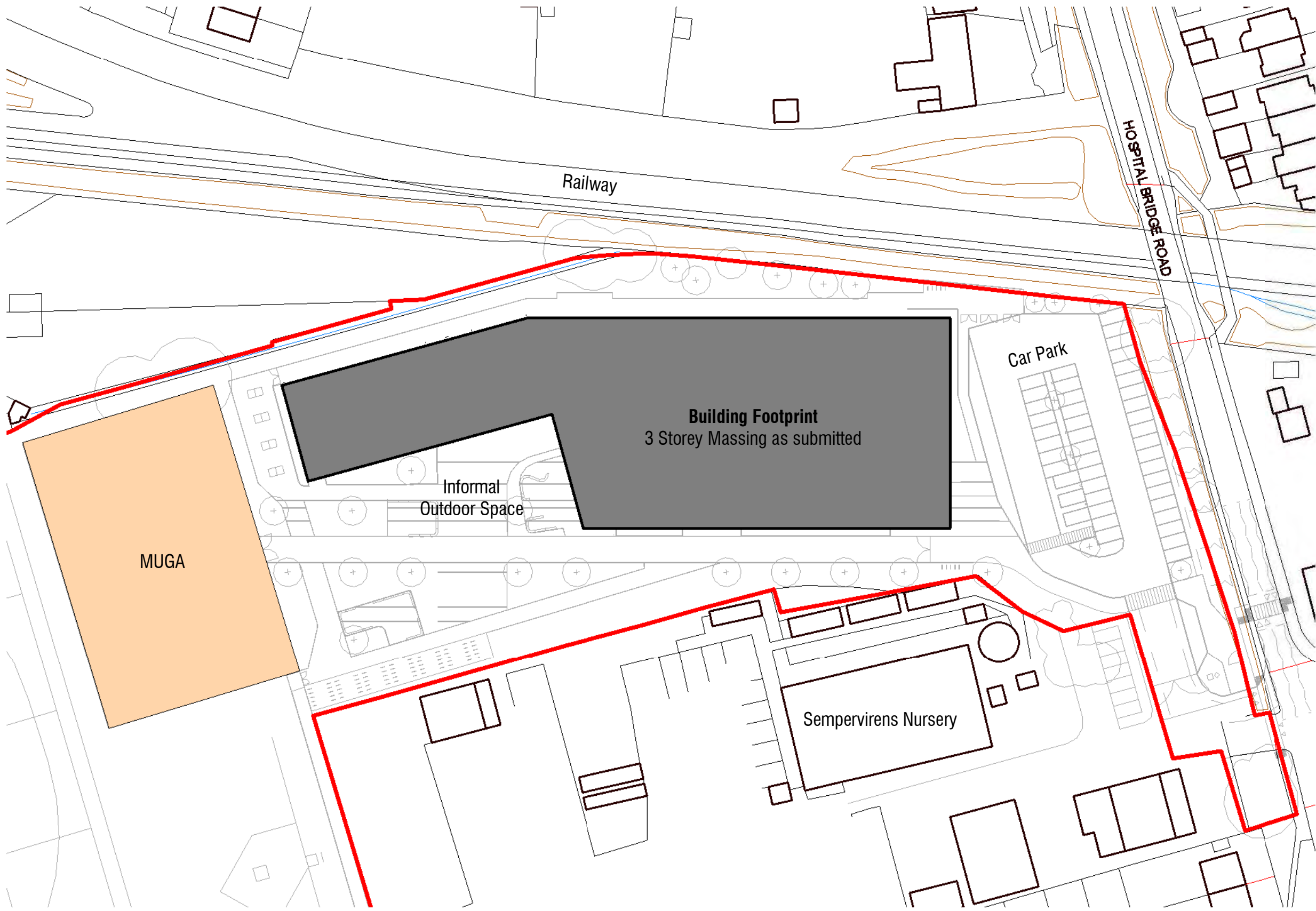


1 3 storey block

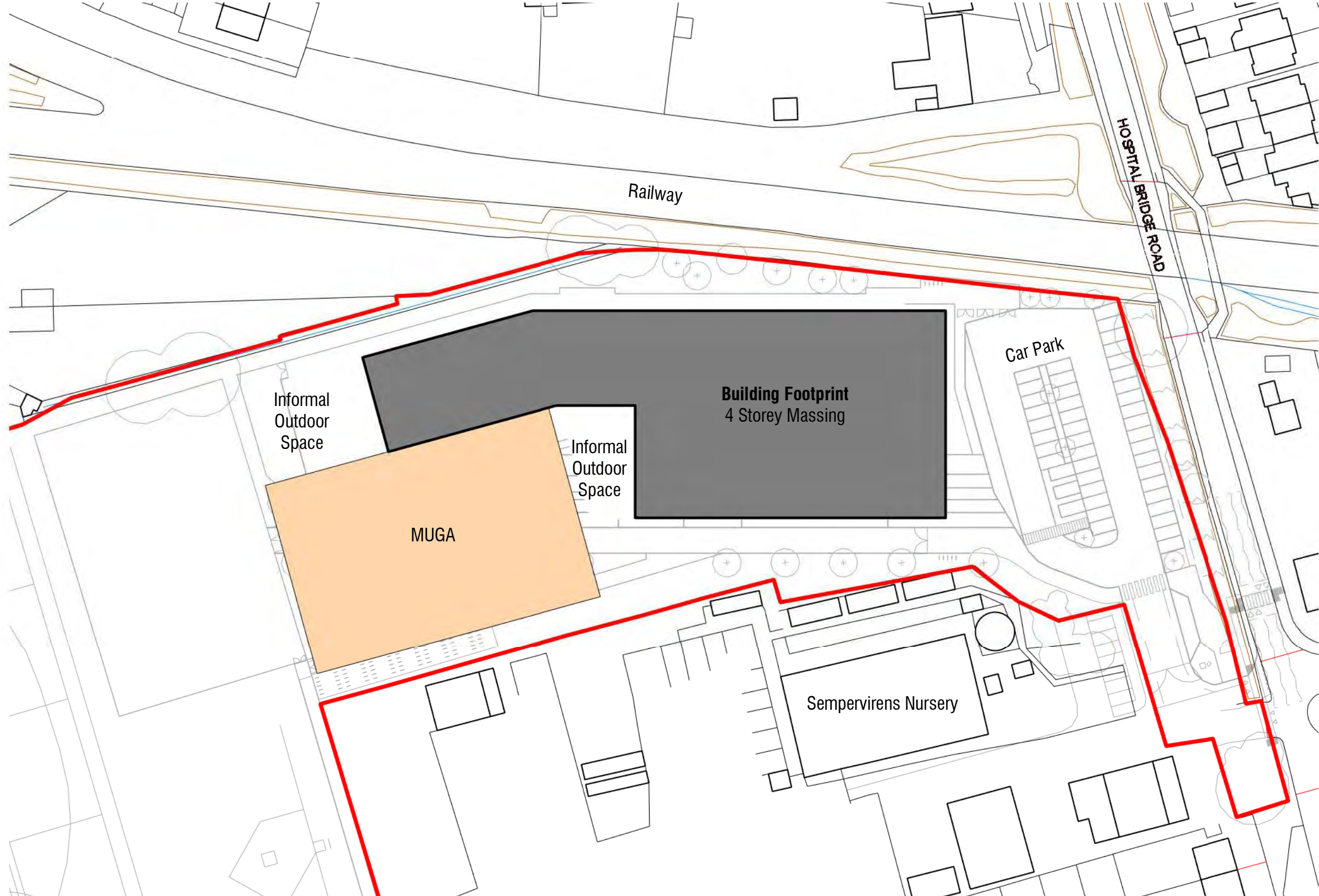
4 Storey Comparison Massing



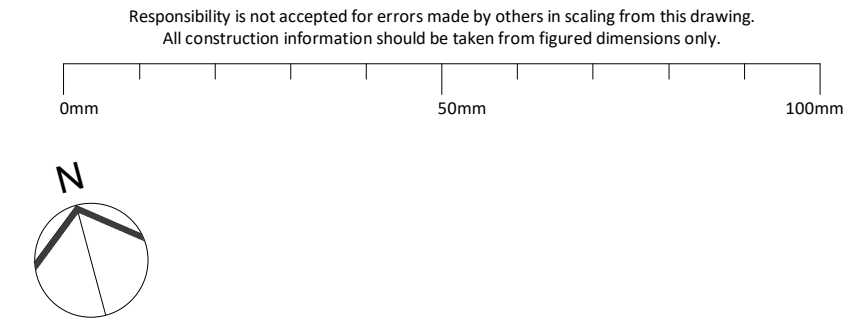
2 Comparison 4 Storey Massing



3 Submitted 3 Storey Massing  
1 : 750



4 Comparison 4 Storey Massing  
1 : 750



AH	CB	14.03.19	4 Storey Comparison Massing first issue for comment	REVISD BY
CLIENT				AH
				CHECKED BY
				CB
				ORIGINATOR NO
				151547

CONSULTANT  
**STRIDE TREGLOWN**  
www.stride-treglow.com © Stride Treglow Limited 2016  
PROJECT  
Turing House School  
Twickenham

DRAWING TITLE  
**4 Storey Massing Comparison**

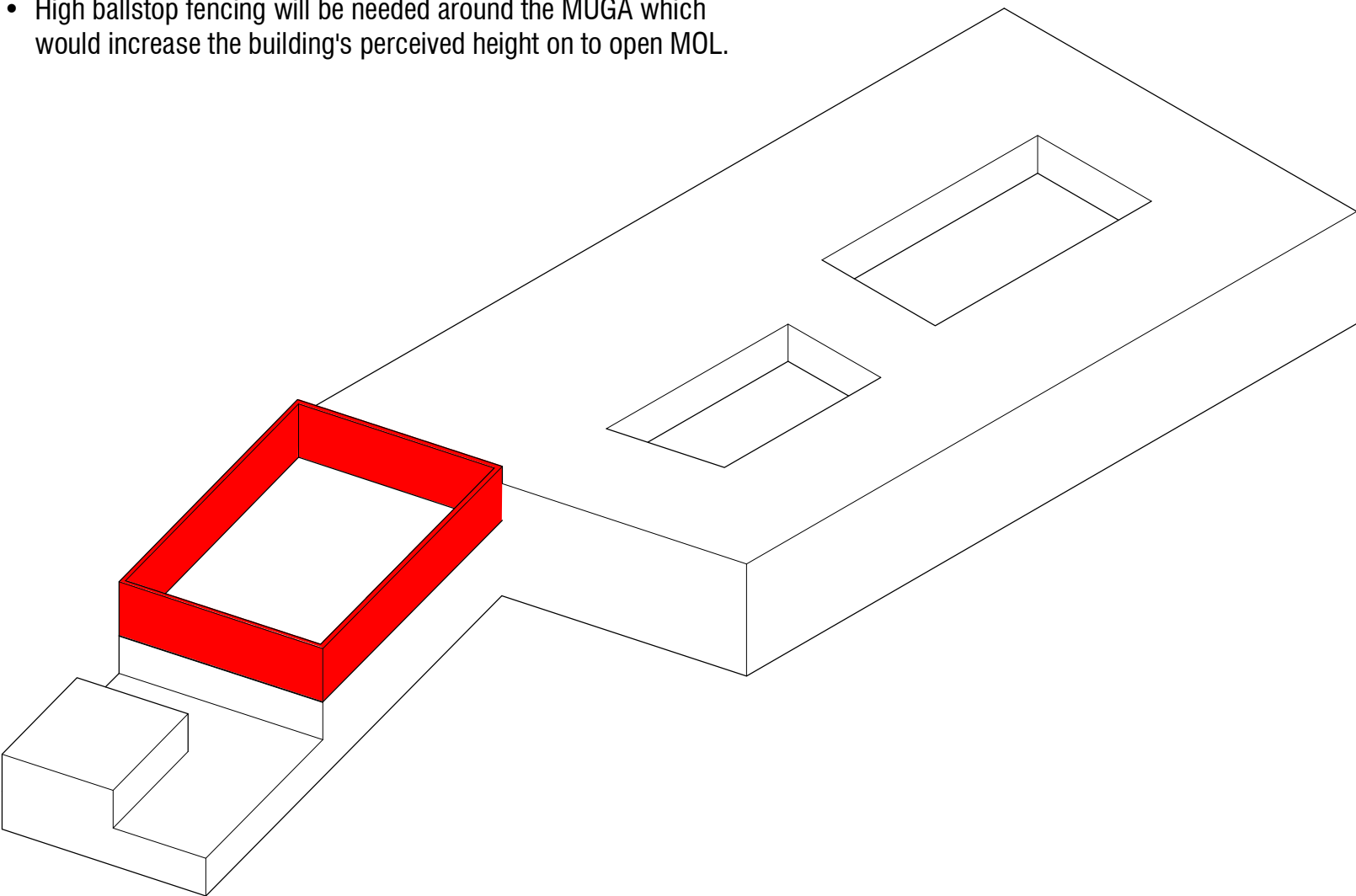
SUITABILITY STATUS <b>S2 : SUITABLE FOR INFORMATION</b>	SCALE <b>1 : 750 @ A1</b>
PROJECT   ORIGINATOR   ZONE   LEVEL   TYPE   ROLE   NUMBER <b>FS0316-STL-ZZ-DR-A-S201</b>	REVISION <b>P01</b>



To enable access to a rooftop MUGA over the sports hall, the sports hall would need to be moved to the east to abut the main block. This would lead to:

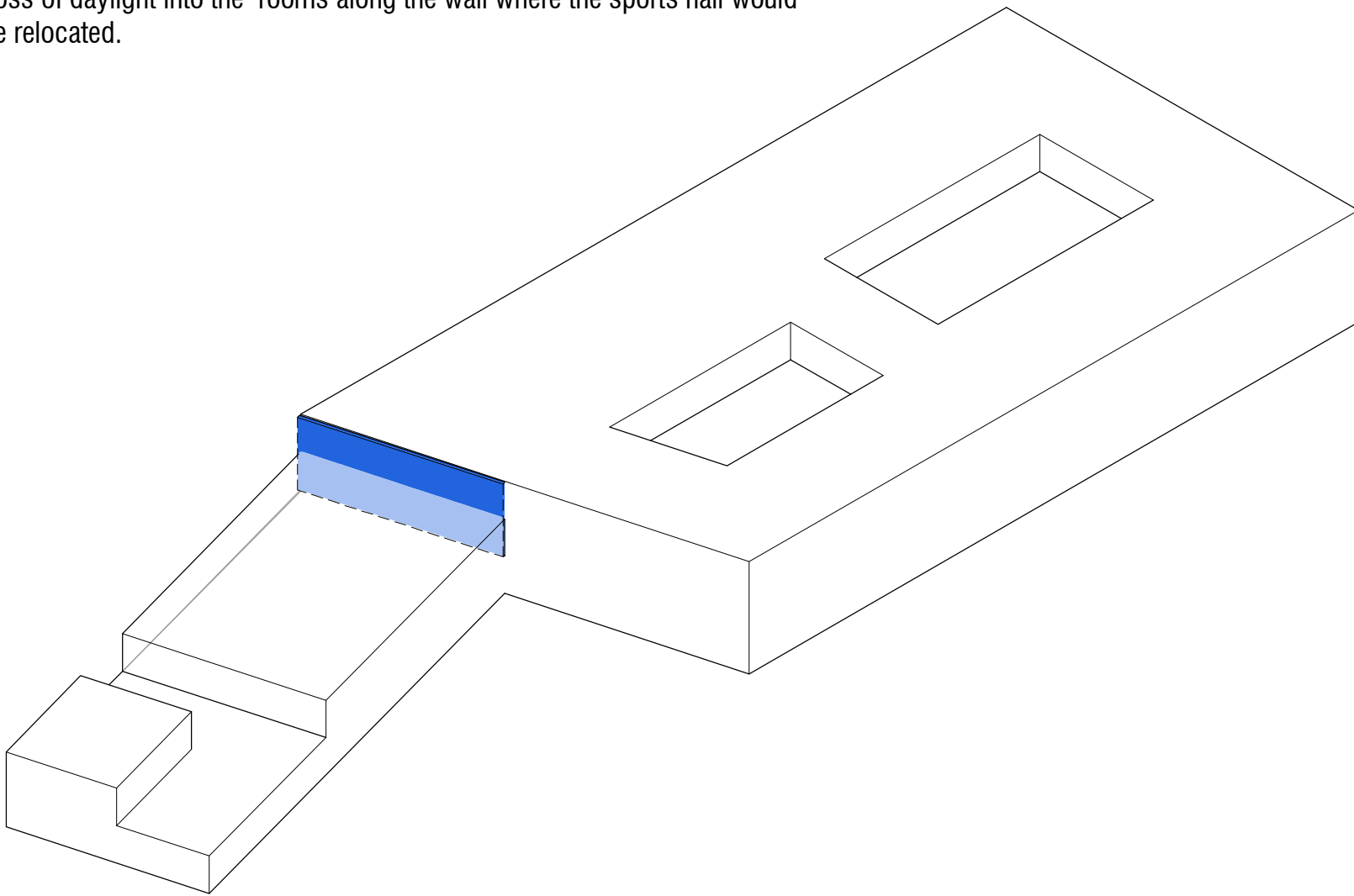
High Fencing

- High ballstop fencing will be needed around the MUGA which would increase the building's perceived height on to open MOL.



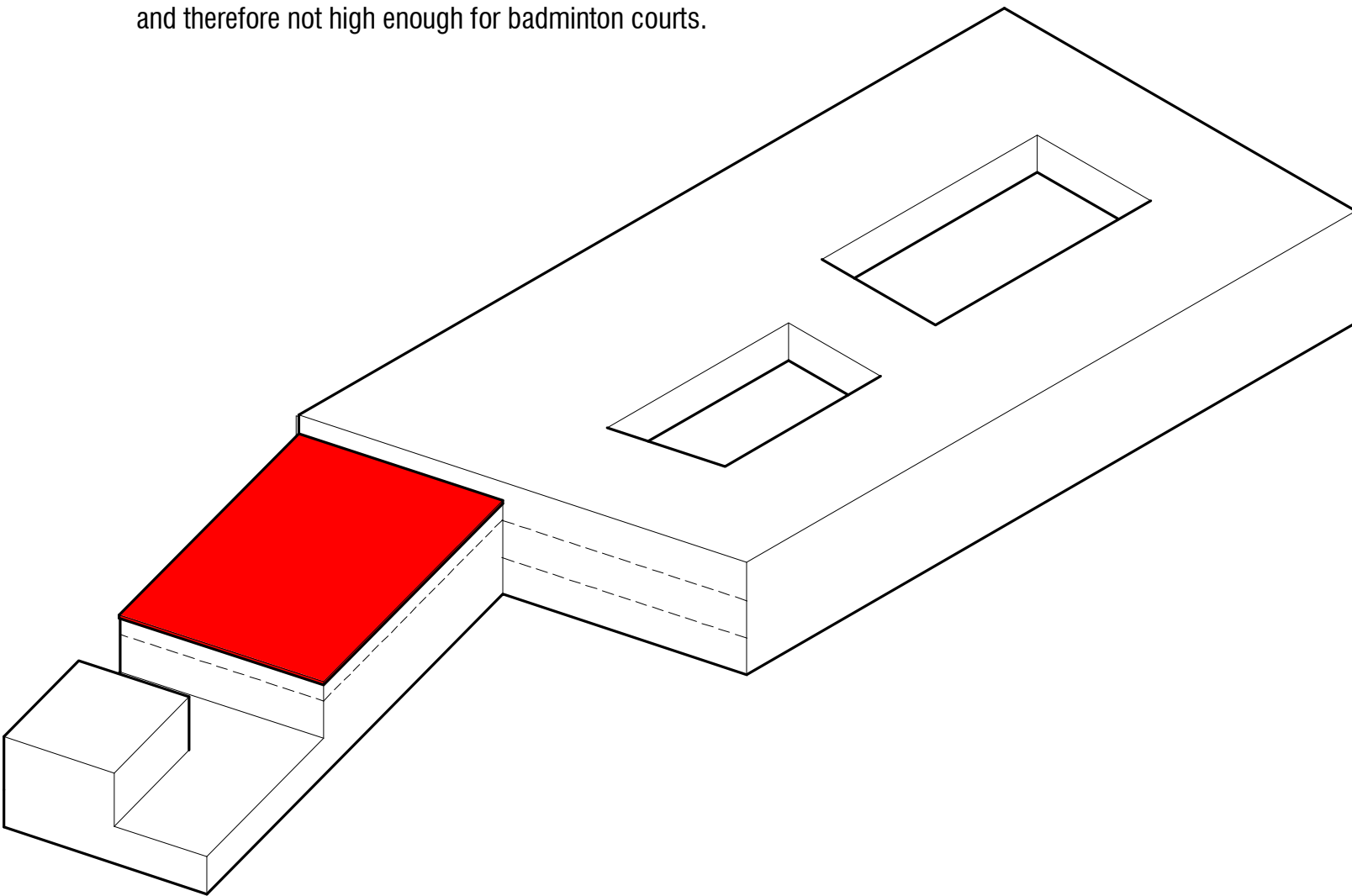
Loss of Daylight

- Loss of daylight into the rooms along the wall where the sports hall would be relocated.



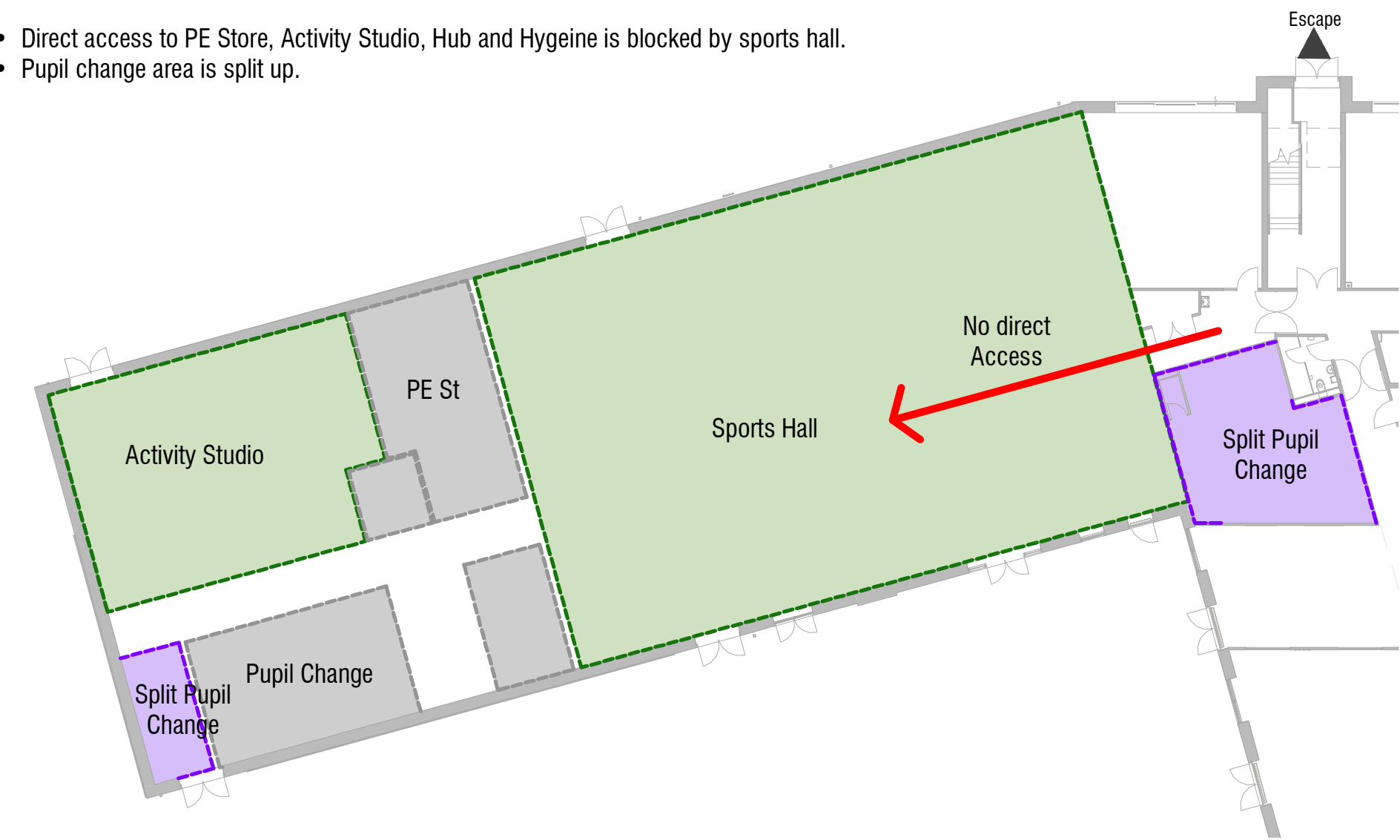
Reduced Clear Height

- The height of the sports hall for MUGA and main building floors aren't aligned.
- In order to align them the sports hall would have to be made lower and therefore not high enough for badminton courts.



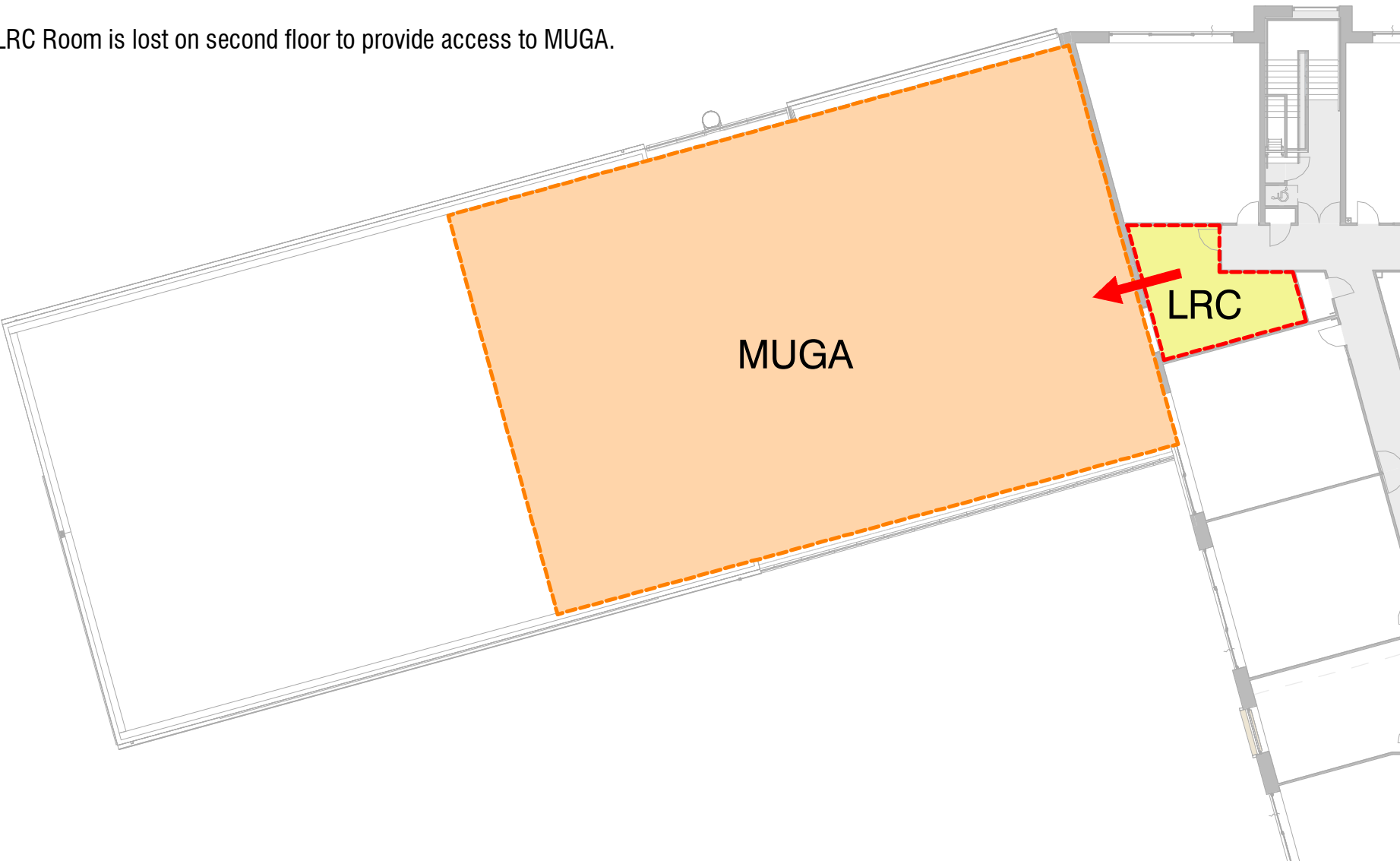
Accessibility

- Direct access to PE Store, Activity Studio, Hub and Hygeine is blocked by sports hall.
- Pupil change area is split up.



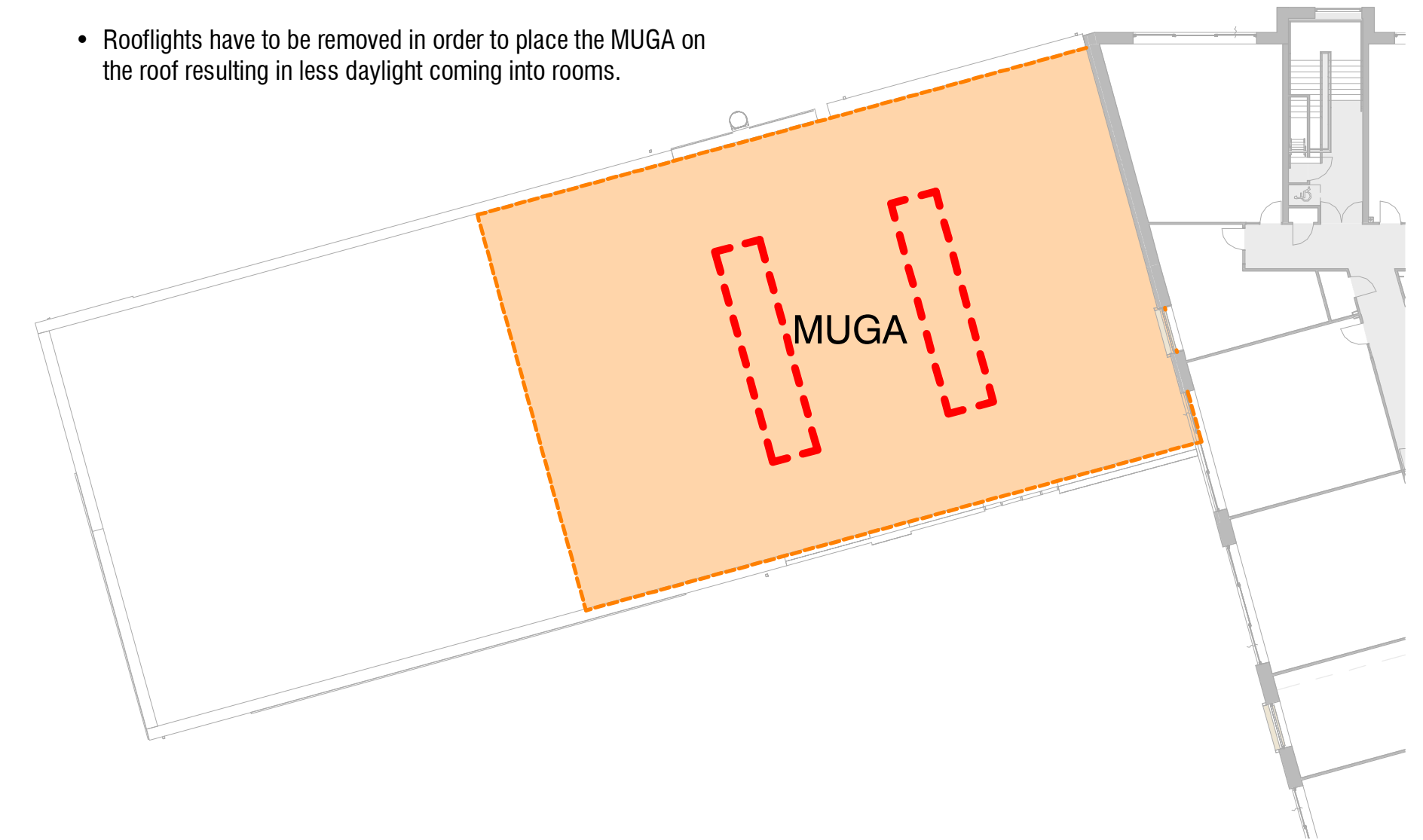
Loss of LRC

- LRC Room is lost on second floor to provide access to MUGA.



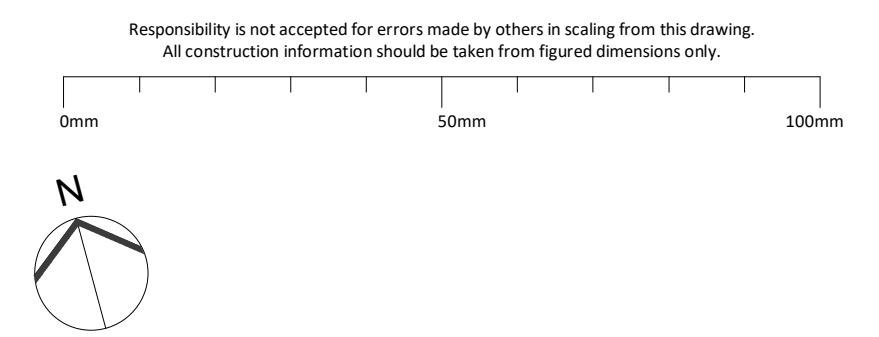
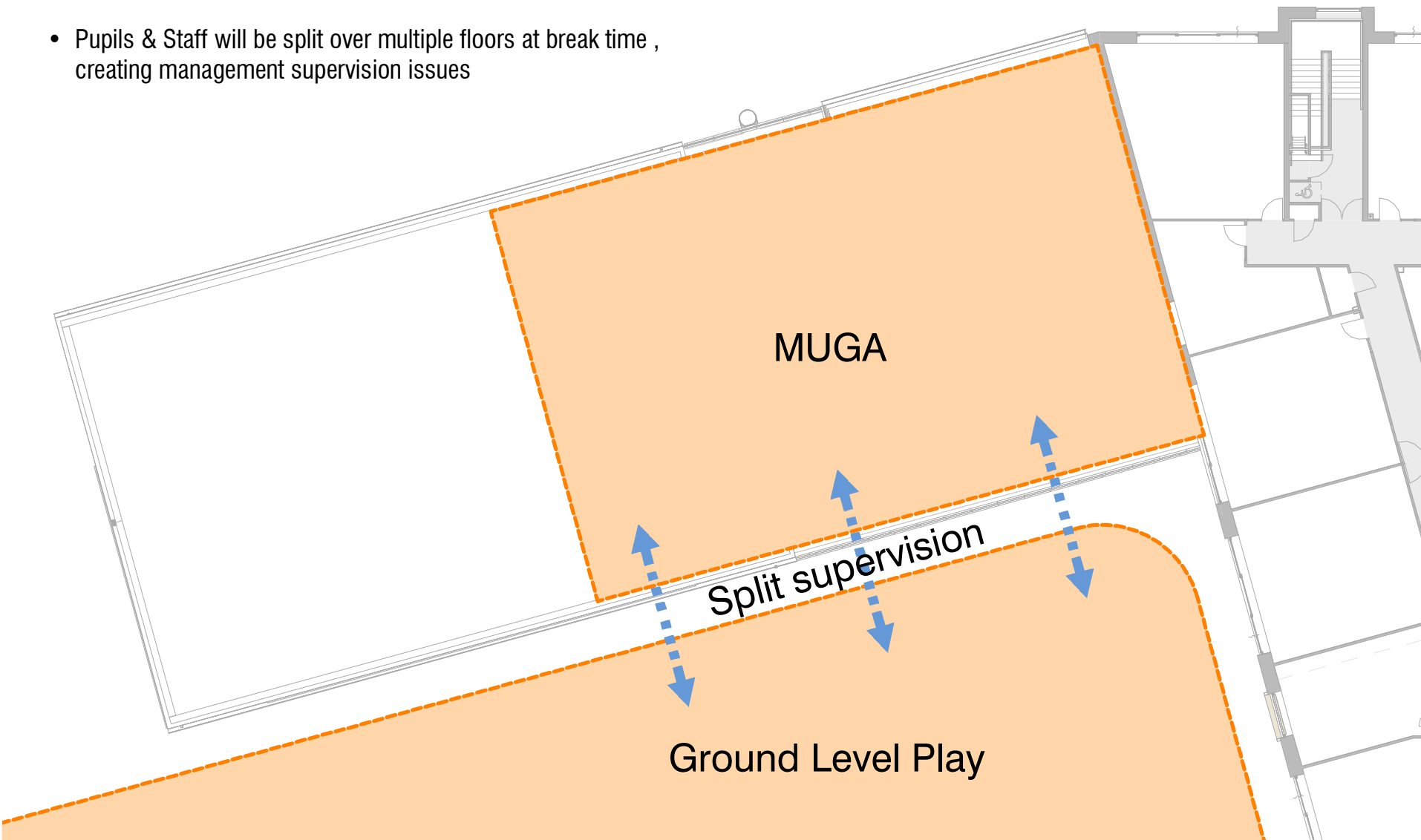
Loss of Rooflights

- Rooflights have to be removed in order to place the MUGA on the roof resulting in less daylight coming into rooms.



Split Supervision

- Pupils & Staff will be split over multiple floors at break time , creating management supervision issues



AH	CB	14.03.19	Rooftop MUGA first issue
AUTHOR	CHECK	DATE	DESCRIPTION
CLIENT			REVISED BY
			AH
			CHECKED BY
			CB
			ORIGINATOR NO
			151547

CONSULTANT

**STRIDE TREGLOWN**

www.stride-treglow.com

PROJECT

Turing House School  
Twickenham

DRAWING TITLE

Rooftop MUGA Analysis

SUITABILITY STATUS	SCALE
S2 : SUITABLE FOR INFORMATION	1 : 250 @ A1
PROJECT   ORIGINATOR   ZONE   LEVEL   TYPE   ROLE   NUMBER	REVISION
FS0316-STL-ZZ-ZZ-DR-A-S202	P01

[REDACTED]

---

**From:** [REDACTED] <[REDACTED]@richmondandwandsworth.gov.uk>  
**Sent:** 22 July 2019 14:14  
**To:** [REDACTED]  
**Subject:** RE: 18/3561/FUL

Official  
[REDACTED]

The committee report sets out the Heads of Terms in detail. It is our opinion that this is all that is needed at this stage and to validate the referral. This has been accepted by the GLA previously.

Regards,  
[REDACTED]

---

**From:** [REDACTED] <[REDACTED]@london.gov.uk>  
**Sent:** 22 July 2019 14:10  
**To:** [REDACTED] <[REDACTED]@richmondandwandsworth.gov.uk>  
**Subject:** RE: 18/3561/FUL

[REDACTED]  
We will need to see a draft s106 before we can validate the referral.

Thanks,  
[REDACTED]

---

**From:** [REDACTED] <[REDACTED]@richmondandwandsworth.gov.uk>  
**Sent:** 22 July 2019 13:37  
**To:** [REDACTED] <[REDACTED]@london.gov.uk>  
**Subject:** RE: 18/3561/FUL

Official

Hi [REDACTED]

Not that I am aware of. I email [REDACTED] about this last week but have not had a response. Our lawyers are in contact but I am not aware of any progress being made on the S106.

I am just waiting for the minutes of the committee to be agreed. Am I Ok sending the referral on in the meantime and I can confirm when the minutes are online?

Thanks,  
[REDACTED]

---

**From:** [REDACTED] <[REDACTED]@london.gov.uk>  
**Sent:** 22 July 2019 13:31  
**To:** [REDACTED] <[REDACTED]@richmondandwandsworth.gov.uk>  
**Subject:** RE: 18/3561/FUL

[REDACTED]  
Have you got a draft s106 you could send through to me?

Thanks,  
[REDACTED]

---

**From:** [REDACTED] <[REDACTED]@richmondandwandsworth.gov.uk>  
**Sent:** 12 July 2019 14:33  
**To:** [REDACTED] <[REDACTED]@london.gov.uk>  
**Subject:** RE: 18/3561/FUL

Official

Ok no problem.  
[REDACTED]

---

**From:** [REDACTED] <[REDACTED]@london.gov.uk>  
**Sent:** 12 July 2019 14:22  
**To:** [REDACTED] <[REDACTED]@richmondandwandsworth.gov.uk>  
**Subject:** RE: 18/3561/FUL

Ok, thanks. I might ask you to hold off referring at stage 2 until after next week as I am on leave the week it would be going to the mayor if you were to refer it next week.

Thanks,

---

**From:** [REDACTED] <[REDACTED][richmondandwandsworth.gov.uk](mailto:richmondandwandsworth.gov.uk)>

**Sent:** 12 July 2019 14:16

**To:** [REDACTED] <[REDACTED][london.gov.uk](mailto:london.gov.uk)>

**Subject:** RE: 18/3561/FUL

Official

They agreed with our recommendation for approval.

We'll refer it on to yourselves next week.

Regards,

---

**From:** [REDACTED] <[REDACTED][london.gov.uk](mailto:london.gov.uk)>

**Sent:** 12 July 2019 14:13

**To:** [REDACTED] <[REDACTED][richmondandwandsworth.gov.uk](mailto:richmondandwandsworth.gov.uk)>

**Subject:** RE: 18/3561/FUL

What was the outcome at committee?

Thanks,

---

**From:** [REDACTED] <[REDACTED][richmondandwandsworth.gov.uk](mailto:richmondandwandsworth.gov.uk)>

**Sent:** 04 July 2019 15:20

**To:** [REDACTED] <[REDACTED][london.gov.uk](mailto:london.gov.uk)>

**Subject:** RE: 18/3561/FUL

Hi [REDACTED]

Just to confirm (If I haven't already done so!), the application is going our planning committee next Wednesday (10<sup>th</sup> July).

Regards,

---

**From:** [REDACTED] <[REDACTED][london.gov.uk](mailto:london.gov.uk)>

**Sent:** 24 June 2019 11:17

**To:** [REDACTED] <[REDACTED][richmondandwandsworth.gov.uk](mailto:richmondandwandsworth.gov.uk)>

**Subject:** RE: 18/3561/FUL

Hi [REDACTED]

I have chased, hopefully they will get back to me shortly but I know they are swamped atm. Can you let me know when your committee report will be made available?

Thanks,

---

**From:** [REDACTED] <[REDACTED][richmondandwandsworth.gov.uk](mailto:richmondandwandsworth.gov.uk)>

**Sent:** 24 June 2019 11:00

**To:** [REDACTED] <[REDACTED][london.gov.uk](mailto:london.gov.uk)>

**Subject:** FW: 18/3561/FUL

Hi [REDACTED]

Are you able to run this information past your energy team?

We're hoping to take this to committee on 10 July so if they could respond asap that would be appreciated.

Thanks,

---

**From:** [REDACTED] <[REDACTED][dppukltd.com](mailto:dppukltd.com)>

**Sent:** 20 June 2019 15:27

**To:** [REDACTED] <[REDACTED][richmondandwandsworth.gov.uk](mailto:richmondandwandsworth.gov.uk)>

**Cc:** [REDACTED] <[REDACTED][dppukltd.com](mailto:dppukltd.com)>; [REDACTED] <[REDACTED][deltasimons.com](mailto:deltasimons.com)>; [REDACTED]

[REDACTED] <[REDACTED][bandk.co.uk](mailto:bandk.co.uk)>; [REDACTED] <[REDACTED][ares.eu.com](mailto:ares.eu.com)>; [REDACTED]

[REDACTED] <[REDACTED][richmondandwandsworth.gov.uk](mailto:richmondandwandsworth.gov.uk)>; [REDACTED] <[REDACTED][dppukltd.com](mailto:dppukltd.com)>; [REDACTED]

[REDACTED] <[REDACTED][TreeSurveys.co.uk](mailto:TreeSurveys.co.uk)>; [REDACTED] <[REDACTED][wildfuture.co.uk](mailto:wildfuture.co.uk)>; [REDACTED]

[REDACTED] <[REDACTED][education.gov.uk](mailto:education.gov.uk)>; [REDACTED] <[REDACTED][education.gov.uk](mailto:education.gov.uk)>; [REDACTED]

<[REDACTED]@trowers.com>; [REDACTED] [REDACTED] <[REDACTED]@robertwest.co.uk>; [REDACTED] [REDACTED]  
<[REDACTED]@turntown.co.uk>

**Subject:** RE: 18/3561/FUL

Hi [REDACTED]

Hopefully you have now had our response on all outstanding and I understand that following the Arboriculture/Ecology site visit yesterday, [REDACTED] [REDACTED] is now content with the proposals subject to conditions that he is to recommend. If that is not the case please advise ASAP.

In terms of the S106, the matters I have for the Heads of Terms are as follows;

- ☐ Tfl bus contribution - staged draw down payments to be related to demand for new buses over a period of 5 years but capped at **£1.175m** unless alternative government funding for TfL bus services is confirmed during this period. Drawdown is also to be subject to evidence of enhanced patronage related to the school.
- ☐ Contribution toward pedestrian and cycle improvements (Hospital Bridge Road/A316 Junction) - **£120,000**
- ☐ Carbon Offset Contribution to achieve zero carbon – based on the assessment attached, this would give rise to a figure of **£105,828.21**
- ☐ Contribution toward maintenance of Heathfield Recreation Ground (but excluding any additional capital spending which we do not feel is justified in terms of the S106 tests) - **£17,500**
- ☐ Transfer of land and commuted sum for additional Public Open Space. Whilst we note that LBRuT would propose to undertake the enhancement works for this area themselves, we believe that the figure sought from the applicant for these works of £250,971 over 5 years to landscape and maintain this area is excessive. The contractors had budgeted a figure of **£71,405** for works to this area and we feel that this is a reasonable and proportionate figure on top of the value of the extensive area of land that LBRuT will be receiving free of charge.

Again, if you feel there are any additional items, please highlight these.

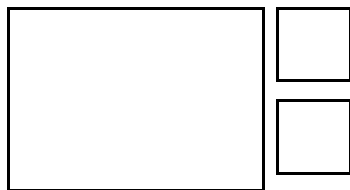
[REDACTED]

**Director**

T: 0207 [REDACTED]

M: [REDACTED]

E: [REDACTED]@dppukltd.com



Cardiff | Leeds | **London** | Manchester | Newcastle upon Tyne

**66 Porchester Road**

**London**

**W2 6ET**

---

**From:** [REDACTED] [REDACTED] <[REDACTED]@richmondandwandsworth.gov.uk>

**Sent:** 13 June 2019 15:13

**To:** [REDACTED] <[REDACTED]@dppukltd.com>; [REDACTED] <[REDACTED]@TreeSurveys.co.uk>; [REDACTED] [REDACTED]

<[REDACTED]@wildfuture.co.uk>; [REDACTED] <[REDACTED]@dppukltd.com>

**Cc:** [REDACTED] <[REDACTED]@dppukltd.com>; [REDACTED] <[REDACTED]@deltasimons.com>; [REDACTED]

<[REDACTED]@bandk.co.uk>; [REDACTED] <[REDACTED]@ares.eu.com>; [REDACTED] [REDACTED]

<[REDACTED]@richmondandwandsworth.gov.uk>

**Subject:** RE: 18/3561/FUL

Dear All,

Just to confirm, in order to meet the target committee date of 10 July (currently provisional and not public information) we will need all information and all matters resolved by next Friday (21<sup>st</sup>). If we do not have all matters resolved by this date we will not be taking the case to committee until September at the earliest.

DPP – can you please confirm all matters I have emailed requesting clarification on (i.e. confirmation on bus contribution, surface of MUGA, new parking layout etc) as soon as possible.

Regards,

From: [REDACTED] <[REDACTED]@dppukltd.com>

Sent: 12 June 2019 15:59

To: [REDACTED] <[REDACTED]@TreeSurveys.co.uk>; [REDACTED] <[REDACTED]@wildfuture.co.uk>; [REDACTED] <[REDACTED]@dppukltd.com>

Cc: [REDACTED] <[REDACTED]@dppukltd.com>; [REDACTED] <[REDACTED]@deltasimons.com>; [REDACTED] <[REDACTED]@bandk.co.uk>; [REDACTED] <[REDACTED]@ares.eu.com>; [REDACTED] <[REDACTED]@richmondandwandsworth.gov.uk>; [REDACTED] <[REDACTED]@richmondandwandsworth.gov.uk>

Subject: RE: 18/3561/FUL

Hi [REDACTED]

We have discussed this with the team and would actually like to go for the 19<sup>th</sup> at 11:30 if that works for you. We have pulled it back to an earlier date to give a bit more comfort room to incorporate any changes coming out of the onsite discussions so that these can be reviewed and considered by [REDACTED] when writing up his officer report.

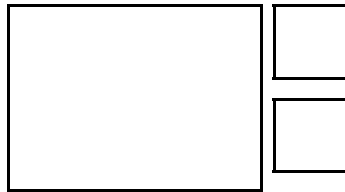
Thanks

[REDACTED]  
[REDACTED]  
**Senior Planner**

T: 0161 828 [REDACTED]

M: 07712 [REDACTED]

E: [REDACTED]@dppukltd.com



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**76 King Street**

**Manchester**

**M2 4NH**

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From: [REDACTED] <[REDACTED]@TreeSurveys.co.uk>

Sent: 12 June 2019 11:36

To: [REDACTED] <[REDACTED]@wildfuture.co.uk>; [REDACTED] <[REDACTED]@dppukltd.com>

Cc: [REDACTED] <[REDACTED]@dppukltd.com>; [REDACTED] <[REDACTED]@dppukltd.com>; [REDACTED] <[REDACTED]@deltasimons.com>; [REDACTED] <[REDACTED]@bandk.co.uk>; [REDACTED] <[REDACTED]@ares.eu.com>; [REDACTED] <[REDACTED]@richmondandwandsworth.gov.uk>; [REDACTED] <[REDACTED]@richmondandwandsworth.gov.uk>

Subject: RE: 18/3561/FUL

Hi [REDACTED] / [REDACTED]

I am able to make the 21<sup>st</sup> and am flexible with regards to the time of the meeting.

Kind regards

[REDACTED]  
[REDACTED]  
**Arboricultural Manager – South West Office**



Tel: 01722 657423 Mob: 07843 247585 [redacted] [treesurveys.co.uk](http://treesurveys.co.uk) [www.treesurveys.co.uk](http://www.treesurveys.co.uk)

Head Office: 5 Moseley's Farm Business Centre, Fornham All Saints, Bury St. Edmunds, Suffolk, IP28 6JY

South West Office: Unit 7, Enterprise House, Cherry Orchard Lane, Salisbury, Wiltshire, SP2 7LD

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 Please consider your environmental responsibility - think before you print!

---

**From:** [redacted] [redacted] [\[mailto:\[redacted\]@wildfuture.co.uk\]](mailto:[redacted]@wildfuture.co.uk)

**Sent:** 11 June 2019 18:27

**To:** [redacted] <[\[redacted\]@dppukltd.com](mailto:[redacted]@dppukltd.com)>

**Cc:** [redacted] <[\[redacted\]@dppukltd.com](mailto:[redacted]@dppukltd.com)>; [redacted] <[\[redacted\]@dppukltd.com](mailto:[redacted]@dppukltd.com)>; [redacted]

<[TreeSurveys.co.uk](http://TreeSurveys.co.uk)>; [redacted] <[\[redacted\]@deltasimons.com](mailto:[redacted]@deltasimons.com)>; [redacted]

<[bandk.co.uk](http://bandk.co.uk)>; [redacted] <[\[redacted\]@ares.eu.com](mailto:[redacted]@ares.eu.com)>; [redacted]

<[richmondandwandsworth.gov.uk](http://richmondandwandsworth.gov.uk)>; [redacted]

<[richmondandwandsworth.gov.uk](http://richmondandwandsworth.gov.uk)>

**Subject:** RE: 18/3561/FUL

Dear [redacted]

Thanks for agreeing to the meeting – I suggested it just to consider the fencing along the northern boundary and the impact on the boundary scrub and dry ditch but I'm happy to discuss anything else needed to make best use of the trip.

I generally think it would be beneficial to have the fencing on the boundary to assist in preventing the access and tipping by some neighbours, but I am concerned by the impacts of removing sections of the scrub in terms of habitat and use as a corridor. If [redacted] and [redacted] can attend - and perhaps someone with knowledge of the construction method - I hope that we can find a workable compromise that retains the vegetation of value, installs the fence on a good line and sees some mitigation / restoration carried out in the course of the project.

My diary is quite flexible - I could do Thursday 14<sup>th</sup>, Friday 15<sup>th</sup>, Tuesday 18<sup>th</sup>, Wednesday 19<sup>th</sup>, Friday 21<sup>st</sup>, Monday 24<sup>th</sup> or Tuesday 25<sup>th</sup> (pm).

Kind regards,

[redacted]  
[redacted]

Director

Wild Future Outdoors Ltd.

t: 01483 [redacted]

m: [redacted]

w: [wildfutureconsultancy.co.uk](http://wildfutureconsultancy.co.uk)

---

**From:** [redacted] [redacted] [\[mailto:\[redacted\]@richmondandwandsworth.gov.uk\]](mailto:[redacted]@richmondandwandsworth.gov.uk)

**Sent:** 30 May 2019 11:56

**To:** [redacted]

**Cc:** [redacted] [redacted] [redacted] [redacted] [redacted] [redacted] [redacted] [redacted] [redacted] [redacted]

[redacted] [wildfuture.co.uk](mailto:[redacted]@wildfuture.co.uk)

**Subject:** RE: 18/3561/FUL

Hi [redacted]

Yes please arrange with [redacted] [redacted] directly – I don't think I need to attend. He is copied into this email so I will allow him to arrange from here.

Yes that's correct. [redacted] has now had sight of the new layout with 20m buffer so he may be able to discuss this at the meeting also.

[redacted]



---

**From:** [REDACTED] <[REDACTED]@[dppukltd.com](mailto:[REDACTED]@dppukltd.com)>

**Sent:** 30 May 2019 11:54

**To:** [REDACTED] <[REDACTED]@[richmondandwandsworth.gov.uk](mailto:[REDACTED]@richmondandwandsworth.gov.uk)>

**Cc:** [REDACTED] <[REDACTED]@[dppukltd.com](mailto:[REDACTED]@dppukltd.com)>; [REDACTED] <[REDACTED]@[dppukltd.com](mailto:[REDACTED]@dppukltd.com)>; [REDACTED]

<[REDACTED]@[TreeSurveys.co.uk](mailto:[REDACTED]@TreeSurveys.co.uk)>; [REDACTED] <[REDACTED]@[deltasimons.com](mailto:[REDACTED]@deltasimons.com)>; [REDACTED]

<[REDACTED]@[bandk.co.uk](mailto:[REDACTED]@bandk.co.uk)>; [REDACTED] <[REDACTED]@[ares.eu.com](mailto:[REDACTED]@ares.eu.com)>; [REDACTED]@[wildfuture.co.uk](mailto:[REDACTED]@wildfuture.co.uk)>

<[REDACTED]@[wildfuture.co.uk](mailto:[REDACTED]@wildfuture.co.uk)>

**Subject:** RE: 18/3561/FUL

[REDACTED] I now have confirmation that our arboriculturalist ([REDACTED] [REDACTED]) and ecologist ([REDACTED] [REDACTED]) are able to attend a site meeting with [REDACTED] [REDACTED]. Should they contact him direct to confirm a date and time? Also does our landscape architect [REDACTED] [REDACTED] need to attend? I get the impression this is more about impacts on the existing vegetation and habitats as opposed to future proposals.

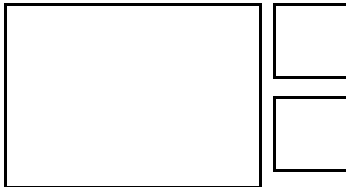
[REDACTED]

**Director**

**T:** 0207 [REDACTED]

**M:** [REDACTED]

**E:** [REDACTED]@[dppukltd.com](mailto:[REDACTED]@dppukltd.com)



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**66 Porchester Road**

**London**

**W2 6ET**

---

**From:** [REDACTED]

**Sent:** 30 May 2019 11:01

**To:** [REDACTED] <[REDACTED]@[richmondandwandsworth.gov.uk](mailto:[REDACTED]@richmondandwandsworth.gov.uk)>

**Cc:** [REDACTED] <[REDACTED]@[dppukltd.com](mailto:[REDACTED]@dppukltd.com)>; [REDACTED] <[REDACTED]@[dppukltd.com](mailto:[REDACTED]@dppukltd.com)>

**Subject:** RE: 18/3561/FUL

[REDACTED]

The MUGA has been moved to address concerns of your tree/landscape officer with the objective of reducing impact on existing boundary trees. We still feel this is a valid design change given the objections from the local residents/Action Group/ tree officer.

It also reduces the requirement for expensive root protection/cell details under the permeable MUGA surface.

We can show a green surface as requested no problem.

I enclose a copy of the proposed revised layout plan for your advance comment. We aim to submit these formally within the next few days.

I am just waiting to hear back from our ecologist who is on leave this week but yes a meeting on site is a good idea.

Re TfL I think the car park reduction is not going to be acceptable to either the school or your members/residents especially now the CPZ has been confirmed, but we will respond on this more fully.

[REDACTED]

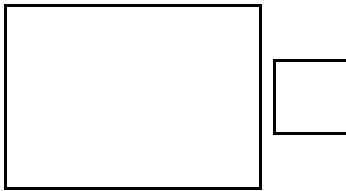
**Director**

**T:** 0207 [REDACTED]

**M:** [REDACTED]

**E:** [REDACTED]@[dppukltd.com](mailto:[REDACTED]@dppukltd.com)





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London  
W2 6ET**

---

**From:** [REDACTED] <[REDACTED][richmondandwandsworth.gov.uk](mailto:richmondandwandsworth.gov.uk)>  
**Sent:** 29 May 2019 15:45  
**To:** [REDACTED] <[REDACTED][dppukltd.com](mailto:dppukltd.com)>  
**Cc:** [REDACTED] <[REDACTED][dppukltd.com](mailto:dppukltd.com)>; [REDACTED] <[REDACTED][dppukltd.com](mailto:dppukltd.com)>  
**Subject:** RE: 18/3561/FUL

Thanks [REDACTED]

Please see latest TfL response below with a few comments in red from me.

It is welcome news to hear that you are proposing extending the buffer. I've just had quick chat with our ecologist and his main concern was a meaningful buffer of circa 20m north of the playing pitches - there wasn't a specific request to move the MUGA (or provide a 20m buffer north of the MUGA). I think it would be best to leave the MUGA in its current location as I am wary that this might open up other issues depending on how much / where the MUGA is moving to (i.e. access arrangements to playing pitches, MOL/visual impact assessments etc). Please let me know and happy to discuss.

Also, whilst we're on the subject of the MUGA – our UD officer had requested a green surface as opposed to grey (or - as originally proposed - red). This would be most appropriate in MOL terms. Can you please re-consider this whilst you are amending the plans.

Further to the ecology comments I sent yesterday re the northern boundary, [REDACTED] [REDACTED] our ecologist is very keen to reach an agreement and can meet on site to discuss this with your consultants. His contact details are:

[REDACTED]  
t: 01483 [REDACTED]

m: [REDACTED]

[REDACTED][wildfuture.co.uk](http://wildfuture.co.uk)

With regard to the HBRAG info, I am just going through the latest so will get back to you with any queries. I don't think we need a further response but I am getting feedback from our consultees. I will send a response from our air quality officer.

Regards,

[REDACTED]

#### Car Parking

- ☐ Retain objection on the basis of 45 car parking spaces
- ☐ TfL have requested a reduction of car parking spaces to 23 car parking spaces. This is a sufficient level of car parking that would allow the school to operate.
- ☐ It is important to note that since the proposals are for a new school in this location, travel patterns to/from the site are yet to be established. Therefore, over time as the school develops to reach full capacity, having few car parking spaces would influence the staff travel patterns from the outset.

#### Controlled Parking Zone (CPZ)

- ☐ Seek clarification on proposed CPZ in the area surrounding the proposed site.

#### Buses

- ☐ TfL have been in talks with the applicant and the London Borough of Richmond regarding the financial bus contributions and are waiting to hear a response from the applicant.

#### Cycle Parking

- ☐ It has been noted and welcomed that the applicant has confirmed all cycle parking is London Cycle Design Standard compliant.

#### Pedestrian and Cyclist Safety

- ☐ The financial contribution of £120k towards improvements to the Hospital Bridge Road/ A316 Roundabout is welcomed and should be secured via the S106 agreement.



- . TfL request further information on the Borough wide proposal of 20mph
- . If this consultation was not successful then TfL would expect the London Borough of Richmond upon Thames to implement a 20mph zone in this stretch of Hospital Bridge Road, in order to adhere to the Vision Zero Strategy.
- . The proposal includes Turing House School and the neighbouring Nursery sharing the access from Hospital Bridge Road. It is noted that the access will be improved, however TfL request clarification if the applicant has spoken with the adjoining site to request that deliveries will occur outside school arrival and finishing times. An agreement such as this would reduce the potential risk of conflict between the pedestrian, cyclists and vehicles, adhering to the Vision Zero strategy. **PLEASE CONFIRM**

#### Community Use

- . TfL request confirmation on whether the applicant is proposing community use for the school on weekends. This should be explored to see if there are any potential impact on the surrounding area. **I HAVE SENT ON DRAFT CUA**

---

**From:** [REDACTED] <[REDACTED]@dppukltd.com>

**Sent:** 28 May 2019 16:00

**To:** [REDACTED] <[REDACTED]@richmondandwandsworth.gov.uk>

**Cc:** [REDACTED] <[REDACTED]@dppukltd.com>; [REDACTED] <[REDACTED]@dppukltd.com>

**Subject:** RE: 18/3561/FUL

Thanks [REDACTED]

I have forwarded the comments to our arboriculturalist and ecologist and have asked for their availability for a site meeting.

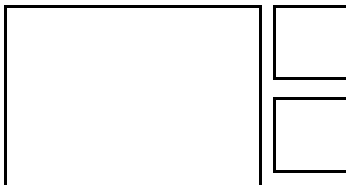
Just so you are aware, we have updated the site layout to pull the pitches and MUGA southward so that there will now be a 20m wide wildlife corridor along most of the northern boundary. The car ark has also been adjusted to miss the oak tree group G003. This has not yet been submitted to you as I am trying to group responses on issues rather than constantly drip feeding information. However, I aim to have this across before the end of the week. Have you read the latest HBRRAG material? We didn't think it had much to add but are there any points upon which you feel you need a response?

[REDACTED]  
**Director**

T: 0207 [REDACTED]

M: [REDACTED]

E: [REDACTED]@dppukltd.com



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**W2 6ET**

---

**From:** [REDACTED] <[REDACTED]@richmondandwandsworth.gov.uk>

**Sent:** 28 May 2019 15:29

**To:** [REDACTED] <[REDACTED]@dppukltd.com>; [REDACTED] <[REDACTED]@dppukltd.com>

**Subject:** 18/3561/FUL

Hi [REDACTED]

As I mentioned, our ecologist visited the site last week to look at the northern boundary. Please see his notes below. I think the best way forward is to arrange a meeting on site with your ecology and tree consultants. If so, please forward their details.

Regards,

[REDACTED]

- Concerns with the removal of the sections of hedge / groups of trees A002, H001 and H002 to facilitate the boundary fencing (A003 looks okay as this is mostly suckering cherry scrub). The proposal maps aren't very detailed and there is no ecological assessment. The preliminary ecological assessment considered the boundary habitat briefly and concluded it was of local value only but it is arguably more important than that and there was no proposal to remove it at that stage.
- The value of this boundary as a wildlife corridor has been emphasised throughout this process. The vegetation along the boundary line is generally quite mature and would take a long time to be replaced. Whilst there are individual trees or short sections (especially non-natives) where the removal and restoration could be beneficial – and the fence would certainly be necessary to prevent fly tipping of waste from the adjacent houses – carrying this out along almost all of the boundary can only have an overall negative effect on the value of the boundary habitat for birds, bats and other wildlife. A Green Hairstreak, a rare butterfly for London although not a species of principal importance, which depends on scrub was spotted on the site visit. Also within this edge habitat is the ditch that we have been keen to conserve. One section of the boundary has dense Japanese Knotweed and this will either need to be skirted or excavated.
- Some more information may help. I struggled to interpret the drawings. At H001, for example, only a narrow slice of the hedge seems to be shown as being removed – but the hedge was only one row of shrubs wide and the actual shaded part did not have any shrubs in it, so I presume it will all be removed. I also can't see how the fence can be erected through H003 without removal similar to the other sections taking place.
- Without further info, if the applicant wishes to consider erecting the fence on the boundary I think more work is needed. This cannot be dealt with by conditions. I would suggest a site meeting with the client and their tree and ecological consultants to look in detail at the proposals and what can be done to reduce the impacts and restore the site afterwards. It may be possible to find a more acceptable solution that can be presented as a joint fence / biodiversity measure that retains some of the key larger shrubs on the boundary.
- If it can't be, I would need to object and a breeding bird survey and bat activity survey would be needed due to loss of nesting / foraging habitat.

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[REDACTED]

---

**From:** [REDACTED]  
**Sent:** 22 July 2019 15:27  
**To:** [REDACTED]  
**Subject:** RE: 18/3561/FUL

Hi [REDACTED]

The documentation required for stage 2 referral is determined on a case by case basis. Whilst you may not have been required to provide a draft s106 previously, given the sensitivities of this particular case, we would require a substantially drafted s106 to validate.

Thanks,

[REDACTED]

---

**From:** [REDACTED] <[REDACTED]@richmondandwandsworth.gov.uk>  
**Sent:** 22 July 2019 13:37  
**To:** [REDACTED] <[REDACTED]@london.gov.uk>  
**Subject:** RE: 18/3561/FUL

Official

Hi [REDACTED]

Not that I am aware of. I email [REDACTED] about this last week but have not had a response. Our lawyers are in contact but I am not aware of any progress being made on the S106.

I am just waiting for the minutes of the committee to be agreed. Am I Ok sending the referral on in the meantime and I can confirm when the minutes are online?

Thanks,

[REDACTED]

---

**From:** [REDACTED] <[REDACTED]@london.gov.uk>  
**Sent:** 22 July 2019 13:31  
**To:** [REDACTED] <[REDACTED]@richmondandwandsworth.gov.uk>  
**Subject:** RE: 18/3561/FUL

[REDACTED]

Have you got a draft s106 you could send through to me?

Thanks,

[REDACTED]

---

**From:** [REDACTED] <[REDACTED]@richmondandwandsworth.gov.uk>  
**Sent:** 12 July 2019 14:33  
**To:** [REDACTED] <[REDACTED]@london.gov.uk>  
**Subject:** RE: 18/3561/FUL

Official

Ok no problem.

---

**From:** [REDACTED] <[REDACTED]@london.gov.uk>

**Sent:** 12 July 2019 14:22

**To:** [REDACTED] <[REDACTED]@richmondandwandsworth.gov.uk>

**Subject:** RE: 18/3561/FUL

Ok, thanks. I might ask you to hold off referring at stage 2 until after next week as I am on leave the week it would be going to the mayor if you were to refer it next week.

Thanks,

---

**From:** [REDACTED] <[REDACTED]@richmondandwandsworth.gov.uk>

**Sent:** 12 July 2019 14:16

**To:** [REDACTED] <[REDACTED]@london.gov.uk>

**Subject:** RE: 18/3561/FUL

Official

They agreed with our recommendation for approval.

We'll refer it on to yourselves next week.

Regards,

---

**From:** [REDACTED] <[REDACTED]@london.gov.uk>

**Sent:** 12 July 2019 14:13

**To:** [REDACTED] <[REDACTED]@richmondandwandsworth.gov.uk>

**Subject:** RE: 18/3561/FUL

What was the outcome at committee?

Thanks,

---

**From:** [REDACTED] <[REDACTED]@richmondandwandsworth.gov.uk>

**Sent:** 04 July 2019 15:20

**To:** [REDACTED] <[REDACTED]@london.gov.uk>

**Subject:** RE: 18/3561/FUL

Hi [REDACTED]

Just to confirm (If I haven't already done so!), the application is going our planning committee next Wednesday (10<sup>th</sup> July).

Regards,

[REDACTED]

---

**From:** [REDACTED] <[REDACTED][london.gov.uk](mailto:[REDACTED]@london.gov.uk)>  
**Sent:** 24 June 2019 11:17  
**To:** [REDACTED] <[REDACTED][richmondandwandsworth.gov.uk](mailto:[REDACTED]@richmondandwandsworth.gov.uk)>  
**Subject:** RE: 18/3561/FUL

Hi [REDACTED]

I have chased, hopefully they will get back to me shortly but I know they are swamped atm. Can you let me know when your committee report will be made available?

Thanks,

[REDACTED]

---

**From:** [REDACTED] <[REDACTED][richmondandwandsworth.gov.uk](mailto:[REDACTED]@richmondandwandsworth.gov.uk)>  
**Sent:** 24 June 2019 11:00  
**To:** [REDACTED] <[REDACTED][london.gov.uk](mailto:[REDACTED]@london.gov.uk)>  
**Subject:** FW: 18/3561/FUL

Hi [REDACTED]

Are you able to run this information past your energy team?

We're hoping to take this to committee on 10 July so if they could respond asap that would be appreciated.

Thanks,

[REDACTED]

---

**From:** [REDACTED] <[REDACTED][dppukltd.com](mailto:[REDACTED]@dppukltd.com)>  
**Sent:** 20 June 2019 15:27  
**To:** [REDACTED] <[REDACTED][richmondandwandsworth.gov.uk](mailto:[REDACTED]@richmondandwandsworth.gov.uk)>  
**Cc:** [REDACTED] <[REDACTED][dppukltd.com](mailto:[REDACTED]@dppukltd.com)>; [REDACTED] <[REDACTED][deltasimons.com](mailto:[REDACTED]@deltasimons.com)>; [REDACTED] <[REDACTED][bandk.co.uk](mailto:[REDACTED]@bandk.co.uk)>; [REDACTED] <[REDACTED][ares.eu.com](mailto:[REDACTED]@ares.eu.com)>; [REDACTED] <[REDACTED][richmondandwandsworth.gov.uk](mailto:[REDACTED]@richmondandwandsworth.gov.uk)>; [REDACTED] <[REDACTED][dppukltd.com](mailto:[REDACTED]@dppukltd.com)>; [REDACTED] <[REDACTED][treesurveys.co.uk](mailto:[REDACTED]@treesurveys.co.uk)>; [REDACTED] <[REDACTED][wildfuture.co.uk](mailto:[REDACTED]@wildfuture.co.uk)>; [REDACTED] <[REDACTED][education.gov.uk](mailto:[REDACTED]@education.gov.uk)>; [REDACTED] <[REDACTED][education.gov.uk](mailto:[REDACTED]@education.gov.uk)>; [REDACTED] <[REDACTED][trowsers.com](mailto:[REDACTED]@trowsers.com)>; [REDACTED] <[REDACTED][robertwest.co.uk](mailto:[REDACTED]@robertwest.co.uk)>; [REDACTED] <[REDACTED][turntown.co.uk](mailto:[REDACTED]@turntown.co.uk)>  
**Subject:** RE: 18/3561/FUL

Hi [REDACTED]

Hopefully you have now had our response on all outstanding and I understand that following the Arboriculture/Ecology site visit yesterday, [REDACTED] is now content with the proposals subject to conditions that he is to recommend. If that is not the case please advise ASAP.

In terms of the S106, the matters I have for the Heads of Terms are as follows;

- ☐ TfL bus contribution - staged draw down payments to be related to demand for new buses over a period of 5 years but capped at **£1.175m** unless alternative government funding for TfL bus services is confirmed during this period. Drawdown is also to be subject to evidence of enhanced patronage related to the school.
- ☐ Contribution toward pedestrian and cycle improvements (Hospital Bridge Road/A316 Junction) - **£120,000**

- . Carbon Offset Contribution to achieve zero carbon – based on the assessment attached, this would give rise to a figure of **£105,828.21**
- . Contribution toward maintenance of Heathfield Recreation Ground (but excluding any additional capital spending which we do not feel is justified in terms of the S106 tests) - **£17,500**
- . Transfer of land and commuted sum for additional Public Open Space. Whilst we note that LBRuT would propose to undertake the enhancement works for this area themselves, we believe that the figure sought from the applicant for these works of £250,971 over 5 years to landscape and maintain this area is excessive. The contractors had budgeted a figure of **£71,405** for works to this area and we feel that this is a reasonable and proportionate figure on top of the value of the extensive area of land that LBRuT will be receiving free of charge.

Again, if you feel there are any additional items, please highlight these.

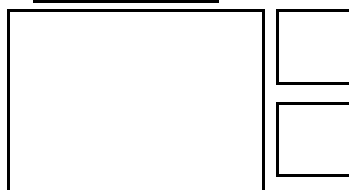
[Redacted]

Director

T: 0207 [Redacted]

M: [Redacted]

E: [Redacted] [dppukltd.com](mailto:[Redacted]@dppukltd.com)



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---

**From:** [Redacted] <[Redacted]@richmondandwandsworth.gov.uk>

**Sent:** 13 June 2019 15:13

**To:** [Redacted] <[Redacted]@dppukltd.com>; [Redacted] <[Redacted]@TreeSurveys.co.uk>; [Redacted]

<[Redacted]@wildfuture.co.uk>; [Redacted] <[Redacted]@dppukltd.com>

**Cc:** [Redacted] <[Redacted]@dppukltd.com>; [Redacted] <[Redacted]@deltasimons.com>; [Redacted]

[Redacted] <[Redacted]@bandk.co.uk>; [Redacted] <[Redacted]@ares.eu.com>; [Redacted]

<[Redacted]@richmondandwandsworth.gov.uk>

**Subject:** RE: 18/3561/FUL

Dear All,

Just to confirm, in order to meet the target committee date of 10 July (currently provisional and not public information) we will need all information and all matters resolved by next Friday (21<sup>st</sup>). If we do not have all matters resolved by this date we will not be taking the case to committee until September at the earliest.

DPP – can you please confirm all matters I have emailed requesting clarification on (i.e. confirmation on bus contribution, surface of MUGA, new parking layout etc) as soon as possible.

Regards,

[Redacted]

---

**From:** [REDACTED] <[REDACTED]@dppukltd.com>

**Sent:** 12 June 2019 15:59

**To:** [REDACTED] <[REDACTED]@TreeSurveys.co.uk>; [REDACTED] <[REDACTED]@wildfuture.co.uk>; [REDACTED] <[REDACTED]@dppukltd.com>

**Cc:** [REDACTED] <[REDACTED]@dppukltd.com>; [REDACTED] <[REDACTED]@deltasimons.com>; [REDACTED] <[REDACTED]@bandk.co.uk>; [REDACTED] <[REDACTED]@ares.eu.com>; [REDACTED] <[REDACTED]@richmondandwandsworth.gov.uk>; [REDACTED] <[REDACTED]@richmondandwandsworth.gov.uk>

**Subject:** RE: 18/3561/FUL

Hi [REDACTED]

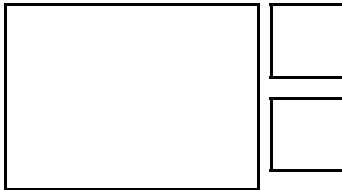
We have discussed this with the team and would actually like to go for the 19<sup>th</sup> at 11:30 if that works for you. We have pulled it back to an earlier date to give a bit more comfort room to incorporate any changes coming out of the onsite discussions so that these can be reviewed and considered by [REDACTED] when writing up his officer report.

Thanks

[REDACTED]

[REDACTED]  
**Senior Planner**

**T:** 0161 828 [REDACTED]  
**M:** 07712 [REDACTED]  
**E:** [REDACTED]@dppukltd.com



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**M2 4NH**

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**From:** [REDACTED] <[REDACTED]@TreeSurveys.co.uk>

**Sent:** 12 June 2019 11:36

**To:** [REDACTED] <[REDACTED]@wildfuture.co.uk>; [REDACTED] <[REDACTED]@dppukltd.com>

**Cc:** [REDACTED] <[REDACTED]@dppukltd.com>; [REDACTED] <[REDACTED]@dppukltd.com>; [REDACTED] <[REDACTED]@deltasimons.com>; [REDACTED] <[REDACTED]@bandk.co.uk>; [REDACTED] <[REDACTED]@ares.eu.com>; [REDACTED] <[REDACTED]@richmondandwandsworth.gov.uk>; [REDACTED] <[REDACTED]@richmondandwandsworth.gov.uk>

**Subject:** RE: 18/3561/FUL

Hi [REDACTED] / [REDACTED]



I am able to make the 21<sup>st</sup> and am flexible with regards to the time of the meeting.

Kind regards

■

■ ■

Arboricultural Manager – South West Office



Tel: 01722 657423 Mob: 07843 247585 ■ [treesurveys.co.uk](mailto:info@treesurveys.co.uk) [www.treesurveys.co.uk](http://www.treesurveys.co.uk)

**Head Office:** 5 Moseley's Farm Business Centre, Fornham All Saints, Bury St. Edmunds, Suffolk, IP28 6JY

**South West Office:** Unit 7, Enterprise House, Cherry Orchard Lane, Salisbury, Wiltshire, SP2 7LD

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Please consider your environmental responsibility - think before you print!

---

**From:** ■ ■ [\[mailto:■@wildfuture.co.uk\]](mailto:■@wildfuture.co.uk)

**Sent:** 11 June 2019 18:27

**To:** ■ <■@dppukltd.com>

**Cc:** ■ <■@dppukltd.com>; ■ <■@dppukltd.com>; ■ ■

<■@TreeSurveys.co.uk>; ■ <■@deltasimons.com>; ■ ■

<■@bandk.co.uk>; ■ <■@ares.eu.com>; ■ ■

<■@richmondandwandsworth.gov.uk>; ■ ■

<■@richmondandwandsworth.gov.uk>

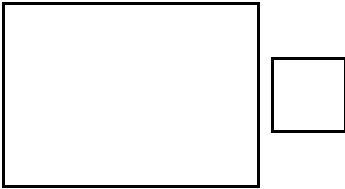
**Subject:** RE: 18/3561/FUL

Dear ■

Thanks for agreeing to the meeting – I suggested it just to consider the fencing along the northern boundary and the impact on the boundary scrub and dry ditch but I'm happy to discuss anything else needed to make best use of the trip.

I generally think it would be beneficial to have the fencing on the boundary to assist in preventing the access and tipping by some neighbours, but I am concerned by the impacts of removing sections of the scrub in terms of habitat and use as a corridor. If ■ and ■ can attend - and perhaps someone with knowledge of the construction method - I hope that we can find a workable compromise that retains the vegetation of value, installs the fence on a good line and sees some mitigation / restoration carried out in the course of the project.





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**London**  
**W2 6ET**

---

**From:** [redacted]  
**Sent:** 30 May 2019 11:01  
**To:** [redacted] <[redacted][richmondandwandsworth.gov.uk](mailto:richmondandwandsworth.gov.uk)>  
**Cc:** [redacted] <[redacted][dppukltd.com](mailto:dppukltd.com)>; [redacted] <[redacted][dppukltd.com](mailto:dppukltd.com)>  
**Subject:** RE: 18/3561/FUL

[redacted]

The MUGA has been moved to address concerns of your tree/landscape officer with the objective of reducing impact on existing boundary trees. We still feel this is a valid design change given the objections from the local residents/Action Group/ tree officer.

It also reduces the requirement for expensive root protection/cell details under the permeable MUGA surface.

We can show a green surface as requested no problem.

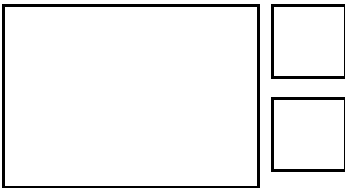
I enclose a copy of the proposed revised layout plan for your advance comment. We aim to submit these formally within the next few days.

I am just waiting to hear back from our ecologist who is on leave this week but yes a meeting on site is a good idea.

Re TfL I think the car park reduction is not going to be acceptable to either the school or your members/residents especially now the CPZ has been confirmed, but we will respond on this more fully.

[redacted]  
**Director**

**T:** 0207 [redacted]  
**M:** [redacted]  
**E:** [redacted][dppukltd.com](mailto:dppukltd.com)



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W2 6ET

---

**From:** [REDACTED] [REDACTED] <[REDACTED]@richmondandwandsworth.gov.uk>  
**Sent:** 29 May 2019 15:45  
**To:** [REDACTED] <[REDACTED]@dppukltd.com>  
**Cc:** [REDACTED] <[REDACTED]@dppukltd.com>; [REDACTED] [REDACTED] <[REDACTED]@dppukltd.com>  
**Subject:** RE: 18/3561/FUL

Thanks [REDACTED]

Please see latest TfL response below with a few comments in red from me.

It is welcome news to hear that you are proposing extending the buffer. I've just had quick chat with our ecologist and his main concern was a meaningful buffer of circa 20m north of the playing pitches - there wasn't a specific request to move the MUGA (or provide a 20m buffer north of the MUGA). I think it would be best to leave the MUGA in its current location as I am wary that this might open up other issues depending on how much / where the MUGA is moving to (i.e. access arrangements to playing pitches, MOL/visual impact assessments etc). Please let me know and happy to discuss.

Also, whilst we're on the subject of the MUGA – our UD officer had requested a green surface as opposed to grey (or - as originally proposed - red). This would be most appropriate in MOL terms. Can you please re-consider this whilst you are amending the plans.

Further to the ecology comments I sent yesterday re the northern boundary, [REDACTED] [REDACTED] our ecologist is very keen to reach an agreement and can meet on site to discuss this with your consultants. His contact details are:

[REDACTED]  
t: 01483 [REDACTED]  
m: [REDACTED]

[REDACTED]@wildfuture.co.uk

With regard to the HBRAG info, I am just going through the latest so will get back to you with any queries. I don't think we need a further response but I am getting feedback from our consultees. I will send a response from our air quality officer.

Regards,  
[REDACTED]

#### Car Parking

- ☐ Retain objection on the basis of 45 car parking spaces
- ☐ TfL have requested a reduction of car parking spaces to 23 car parking spaces. This is a sufficient level of car parking that would allow the school to operate.
- ☐ It is important to note that since the proposals are for a new school in this location, travel patterns to/from the site are yet to be established. Therefore, over time as the school develops to reach full capacity, having few car parking spaces would influence the staff travel patterns from the outset.

#### Controlled Parking Zone (CPZ)

- ☐ Seek clarification on proposed CPZ in the area surrounding the proposed site.

### Buses

- . TfL have been in talks with the applicant and the London Borough of Richmond regarding the financial bus contributions and are waiting to hear a response from the applicant.

### Cycle Parking

- . It has been noted and welcomed that the applicant has confirmed all cycle parking is London Cycle Design Standard compliant.

### Pedestrian and Cyclist Safety

- . The financial contribution of £120k towards improvements to the Hospital Bridge Road/ A316 Roundabout is welcomed and should be secured via the S106 agreement.
- . TfL request further information on the Borough wide proposal of 20mph
- . If this consultation was not successful then TfL would expect the London Borough of Richmond upon Thames to implement a 20mph zone in this stretch of Hospital Bridge Road, in order to adhere to the Vision Zero Strategy.
- . The proposal includes Turing House School and the neighbouring Nursery sharing the access from Hospital Bridge Road. It is noted that the access will be improved, however TfL request clarification if the applicant has spoken with the adjoining site to request that deliveries will occur outside school arrival and finishing times. An agreement such as this would reduce the potential risk of conflict between the pedestrian, cyclists and vehicles, adhering to the Vision Zero strategy. **PLEASE CONFIRM**

### Community Use

- . TfL request confirmation on whether the applicant is proposing community use for the school on weekends. This should be explored to see if there are any potential impact on the surrounding area. **I HAVE SENT ON DRAFT CUA**

---

**From:** [REDACTED] <[REDACTED]@dppukltd.com>  
**Sent:** 28 May 2019 16:00  
**To:** [REDACTED] <[REDACTED]@richmondandwandsworth.gov.uk>  
**Cc:** [REDACTED] <[REDACTED]@dppukltd.com>; [REDACTED] <[REDACTED]@dppukltd.com>  
**Subject:** RE: 18/3561/FUL

Thanks [REDACTED]

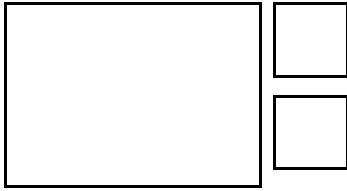
I have forwarded the comments to our arboriculturalist and ecologist and have asked for their availability for a site meeting.

Just so you are aware, we have updated the site layout to pull the pitches and MUGA southward so that there will now be a 20m wide wildlife corridor along most of the northern boundary. The car ark has also been adjusted to miss the oak tree group G003. This has not yet been submitted to you as I am trying to group responses on issues rather than constantly drip feeding information. However, I aim to have this across before the end of the week.

Have you read the latest HBRRAG material? We didn't think it had much to add but are there any points upon which you feel you need a response?

[REDACTED]  
**Director**

**T:** 0207 [REDACTED]  
**M:** [REDACTED]  
**E:** [REDACTED]@dppukltd.com



Cardiff | Leeds | **London** | Manchester | Newcastle upon Tyne

**66 Porchester Road**  
**London**  
**W2 6ET**

---

**From:** [redacted] [redacted] <[redacted][richmondandwandsworth.gov.uk](mailto:richmondandwandsworth.gov.uk)>  
**Sent:** 28 May 2019 15:29  
**To:** [redacted] <[redacted][dppukltd.com](mailto:dppukltd.com)>; [redacted] <[redacted][dppukltd.com](mailto:dppukltd.com)>  
**Subject:** 18/3561/FUL

Hi [redacted]

As I mentioned, our ecologist visited the site last week to look at the northern boundary. Please see his notes below. I think the best way forward is to arrange a meeting on site with your ecology and tree consultants. If so, please forward their details.

Regards,  
[redacted]

- Concerns with the removal of the sections of hedge / groups of trees A002, H001 and H002 to facilitate the boundary fencing (A003 looks okay as this is mostly suckering cherry scrub). The proposal maps aren't very detailed and there is no ecological assessment. The preliminary ecological assessment considered the boundary habitat briefly and concluded it was of local value only but it is arguably more important than that and there was no proposal to remove it at that stage.
- The value of this boundary as a wildlife corridor has been emphasised throughout this process. The vegetation along the boundary line is generally quite mature and would take a long time to be replaced. Whilst there are individual trees or short sections (especially non-natives) where the removal and restoration could be beneficial – and the fence would certainly be necessary to prevent fly tipping of waste from the adjacent houses – carrying this out along almost all of the boundary can only have an overall negative effect on the value of the boundary habitat for birds, bats and other wildlife. A Green Hairstreak, a rare butterfly for London although not a species of principal importance, which depends on scrub was spotted on the site visit. Also within this edge habitat is the ditch that we have been keen to conserve. One section of the boundary has dense Japanese Knotweed and this will either need to be skirted or excavated.
- Some more information may help. I struggled to interpret the drawings. At H001, for example, only a narrow slice of the hedge seems to be shown as being removed – but the hedge was only one row of shrubs wide and the actual shaded part did not have any shrubs in it, so I presume it will all be removed. I also can't see how the fence can be erected through H003 without removal similar to the other sections taking place.
- Without further info, if the applicant wishes to consider erecting the fence on the boundary I think more work is needed. This cannot be dealt with by conditions. I would suggest a site meeting with the client and their tree and ecological consultants to look in detail at the proposals and what can be done to reduce the impacts and restore the site afterwards. It may be possible to find a more acceptable solution that can be presented as a joint fence / biodiversity measure that retains some of the key larger shrubs on the boundary.

- If it can't be, I would need to object and a breeding bird survey and bat activity survey would be needed due to loss of nesting / foraging habitat.

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[REDACTED]

---

**From:** [REDACTED] [REDACTED] <[REDACTED]@richmondandwandsworth.gov.uk>  
**Sent:** 09 October 2019 15:21  
**To:** [REDACTED]  
**Subject:** RE: Turing House

Official

Hi [REDACTED]

I will do. We're just reviewing and agreeing the principles prior to sending across.

Regards,  
[REDACTED]

---

**From:** [REDACTED] <[REDACTED]@london.gov.uk>  
**Sent:** 09 October 2019 10:16  
**To:** [REDACTED] [REDACTED] <[REDACTED]@richmondandwandsworth.gov.uk>  
**Subject:** Turing House

Hi [REDACTED]

When you're in a position to, could you please send through the draft s106 agreement for us to review (prior to formal referral).

Thanks,  
[REDACTED]  
[REDACTED]

**Principal Strategic Planner, Development and Projects**  
GREATERLONDONAUTHORITY  
City Hall, The Queen's Walk, London SE1 2AA  
020 7983 [REDACTED] | 020 7983 [REDACTED]

**london.gov.uk**  
[REDACTED] [london.gov.uk](https://www.london.gov.uk)

[REDACTED]

---

**From:** [REDACTED] <[REDACTED]@richmondandwandsworth.gov.uk>  
**Sent:** 25 November 2019 11:03  
**To:** [REDACTED]  
**Subject:** RE: Turing House School

Official

Hi [REDACTED]

There isn't a latest one but we were broadly happy with the CUA framework submitted through the application and so the intention was to add that to the appendix, subject to final details being agreed. It sets out the expected hours of community use which we were happy with which should give you an idea of public benefits when assessing MOL.

Let me know if you want me to send through the latest version.

[REDACTED]

---

**From:** [REDACTED] <[REDACTED]@london.gov.uk>  
**Sent:** 25 November 2019 10:51  
**To:** [REDACTED] <[REDACTED]@richmondandwandsworth.gov.uk>  
**Subject:** RE: Turing House School

[REDACTED]

Can you please send through the appendix (latest CUA) for completeness?

Thanks,

[REDACTED]

---

**From:** [REDACTED] <[REDACTED]@richmondandwandsworth.gov.uk>  
**Sent:** 22 November 2019 16:50  
**To:** [REDACTED] <[REDACTED]@london.gov.uk>  
**Subject:** RE: Turing House School

Official

Hi [REDACTED]

Further to my previous email, I believe the TfL indexation may now have been agreed but the latter two issues (which are linked) are still outstanding. Our legal and property teams are working with the applicant's and Hounslow's legal/property teams to resolve the outstanding matters on contamination and the lease. Therefore, the heads of terms of the lease and a clause relating to the remediation of the contaminated land will need to be inserted once agreements have been made.

The latest version is attached for your info.

We think that we are ready to send over to you for Stage 2. Can you please confirm you will accept this draft for the purposes of validating the Stage 2 on this basis?

Thanks,

[REDACTED]

---

**From:** [REDACTED]  
**Sent:** 13 November 2019 16:36  
**To:** [REDACTED] <[REDACTED][london.gov.uk](mailto:[REDACTED]@london.gov.uk)>  
**Subject:** RE: Turing House School

Official

Hi [REDACTED]

We're slowly getting there with the S106. There are three outstanding matters:

- TfL contribution indexation (the applicant is in discussions with TfL on this)
- Lease details – LBRuT has agreed the principle of a 125 year lease for the land but the details are being worked through between LBRuT, the applicant and Hounslow.
- Contamination – I believe ground investigation has shown the land is contaminated and so this matter is being discussed in terms of who would be responsible for the remediation works

Are you happy for us to send through the draft S106 and begin the stage 2 referral with these matters outstanding and to be worked through and agreed prior to the decision?

Thanks,  
[REDACTED]

---

**From:** [REDACTED]  
**Sent:** 22 October 2019 14:13  
**To:** [REDACTED] <[REDACTED][london.gov.uk](mailto:[REDACTED]@london.gov.uk)>  
**Subject:** RE: Turing House School

Official

Hi [REDACTED]

Sorry forgot about this. I'll send across later today.

Can I just about the energy strategy contribution. We calculated a figure of £105,828.21 at the application stage but I am aware that the GLA had some outstanding matters that it was still working through with the applicant re the energy strategy. Is it therefore likely that the contribution will change?

I just need to know for the S106.

Are you happy if we leave the figure blank (or TBC) for the purposes of the draft S106 with the final figure to be inserted prior to the signing of the S106 and issuing of the decision (at which point the figure may have changed)?

Thanks,  
[REDACTED]

---

**From:** [REDACTED] <[REDACTED][london.gov.uk](mailto:[REDACTED]@london.gov.uk)>  
**Sent:** 15 October 2019 10:37  
**To:** [REDACTED] <[REDACTED][richmondandwandsworth.gov.uk](mailto:[REDACTED]@richmondandwandsworth.gov.uk)>  
**Subject:** RE: Turing House School

Just the external please.

Ok, thanks anyway. I think I've ruled it out as a potential MOL land swap anyway due to site constraints.

Thanks!

---

**From:** [REDACTED] <[REDACTED][richmondandwandsworth.gov.uk](mailto:[REDACTED]@richmondandwandsworth.gov.uk)>  
**Sent:** 15 October 2019 10:35  
**To:** [REDACTED] <[REDACTED][london.gov.uk](mailto:[REDACTED]@london.gov.uk)>  
**Subject:** RE: Turing House School

Official

Hi [REDACTED]

Do you need internal (LBRuT) as well as external statutory consultee comments?

There isn't a great deal I can add re the Hampton Hill juniors site unfortunately. A feasibility study is being undertaken as you are aware of but it is too early to say what might happen to this site and whether the re-location may go ahead. I think you were referring to this site as potential replacement MOL but I also note that the Hampton Hill site was assessed through the sequential report.

Regards,

[REDACTED]

---

**From:** [REDACTED] <[REDACTED][london.gov.uk](mailto:[REDACTED]@london.gov.uk)>  
**Sent:** 14 October 2019 13:26  
**To:** [REDACTED] <[REDACTED][richmondandwandsworth.gov.uk](mailto:[REDACTED]@richmondandwandsworth.gov.uk)>  
**Subject:** Turing House School

Hi [REDACTED]

I'm drafting my stage 2 report. Can you please send through copies of the statutory consultation responses?

Did you get to the bottom of my Hampton Hill School query?

Many thanks,

[REDACTED]

[REDACTED]

**Principal Strategic Planner, Development and Projects**  
GREATERLONDONAUTHORITY  
City Hall, The Queen's Walk, London SE1 2AA  
020 7983 [REDACTED] | 020 7983 [REDACTED]

**[london.gov.uk](http://london.gov.uk)**  
[REDACTED][london.gov.uk](http://london.gov.uk)

[REDACTED]

---

**From:** [REDACTED] <[REDACTED]@richmondandwandsworth.gov.uk>  
**Sent:** 28 November 2019 12:26  
**To:** [REDACTED]  
**Cc:** [REDACTED]  
**Subject:** RE: Turing House School, Hospital Bridge Road

Official

[REDACTED]

The LPA has, in accordance with clause 5 of The Town and Country Planning (Mayor of London) Order 2008, notified the Mayor of the application. Can you confirm your email dated 26 November was the formal notification of receipt, and the 14 days started from then (and would finish 10<sup>th</sup> December)?

You now advise that the application will be not heard until 16th December, however, this is outside the provision of clause 5 of the above Order which requires the LPA not to determine a PSI application unless

- ☐ A period of 14 days has elapsed beginning with the date notified in writing by the Mayor as the date on which he received the documents or
- ☐ The Mayor has notified the LPA that he is content for the authority to determine the application.

Can you confirm to me where the above Order allows the Mayor / GLA to delay the Stage 2? This is for both process and so I can inform the applicants, Director and Members.

Regards

[REDACTED]

Regards

[REDACTED] [REDACTED]  
**Strategic Applications Manager (Richmond)**  
**Serving Richmond and Wandsworth Councils**

**Tel:** 0208 891 [REDACTED]  
**Email:** [REDACTED]@richmondandwandsworth.gov.uk  
**Web:** [www.richmond.gov.uk](http://www.richmond.gov.uk) / [www.wandsworth.gov.uk](http://www.wandsworth.gov.uk)

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---

**From:** [REDACTED] <[REDACTED]@london.gov.uk>  
**Sent:** 28 November 2019 11:35

**To:** [REDACTED] <[REDACTED]@richmondandwandsworth.gov.uk>  
**Cc:** [REDACTED] <[REDACTED]@richmondandwandsworth.gov.uk>  
**Subject:** RE: Turing House School, Hospital Bridge Road

[REDACTED]

I have been informed that I am going to have to delay taking the application to Stage 2 until 16<sup>th</sup> December due to scheduling issues beyond my control. I apologise for the inconvenience.

Thanks,

[REDACTED]

---

**From:** [REDACTED] <[REDACTED]@richmondandwandsworth.gov.uk>  
**Sent:** 26 November 2019 16:06  
**To:** [REDACTED] <[REDACTED]@london.gov.uk>  
**Cc:** [REDACTED] <[REDACTED]@richmondandwandsworth.gov.uk>  
**Subject:** RE: Turing House School, Hospital Bridge Road

Official

Thank you.

---

**From:** [REDACTED] <[REDACTED]@london.gov.uk>  
**Sent:** 26 November 2019 16:06  
**To:** [REDACTED] <[REDACTED]@richmondandwandsworth.gov.uk>  
**Cc:** [REDACTED] <[REDACTED]@richmondandwandsworth.gov.uk>  
**Subject:** RE: Turing House School, Hospital Bridge Road

[REDACTED]

Ok, I have asked planning support to send out a formal notification of receipt.

Thanks,

[REDACTED]

---

**From:** [REDACTED] <[mailto:[REDACTED]@richmondandwandsworth.gov.uk]>  
**Sent:** 26 November 2019 14:23  
**To:** [REDACTED] <[REDACTED]@london.gov.uk>  
**Cc:** [REDACTED] <[REDACTED]@richmondandwandsworth.gov.uk>  
**Subject:** RE: Turing House School, Hospital Bridge Road

Official

Thank you for letting me know. [REDACTED] has not been in touch with us.

As for the referral date, I am sorry I cannot agree for this to be delayed. The Local Planning Authority is under a lot of pressure for this application to progress through the correct channels in a timely manner, and there is increasing concern about the likely timing for the delivery of the school given the delays (through the drafting of the Section 106) and the fact the LPA still need to refer this up to the NPCU. As you can appreciate the LPA cannot hold off from validating an application, and therefore I would expect the same from the GLA and for the GLA to undertake their duty in line with the Order.

I look forward to receiving confirmation that the referral has been accepted from today.

■

Regards

■ ■  
**Strategic Applications Manager (Richmond)**  
**Serving Richmond and Wandsworth Councils**

**Tel:** 0208 891 ■  
**Email:** ■ [richmondandwandsworth.gov.uk](mailto:richmondandwandsworth.gov.uk)  
**Web:** [www.richmond.gov.uk](http://www.richmond.gov.uk) / [www.wandsworth.gov.uk](http://www.wandsworth.gov.uk)

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---

**From:** ■ <■ [richmondandwandsworth.gov.uk](mailto:richmondandwandsworth.gov.uk)>  
**Sent:** 26 November 2019 13:58  
**To:** ■ ■ <■ [richmondandwandsworth.gov.uk](mailto:richmondandwandsworth.gov.uk)>  
**Subject:** RE: Turing House School, Hospital Bridge Road

Hi ■

Yes, I've now looked through the docs and I think we are there. ■ wanted to check a couple of minor points with ■ but otherwise he is happy. In terms of referral date, if you wouldn't mind holding off until Monday that would be a great help. As you are aware, our timescales for turning stage 2s around is 14 days so if I was to receive the formal referral today I would only have the end of the week to complete my report to get it on the agenda for 9 December and I already have 2 significant deadlines for the end of this week. If referring it on Monday, I would take it to the Mayor a week later (16<sup>th</sup> December).

Let me know.

Thanks,

■

---

**From:** ■ ■ [<mailto:richmondandwandsworth.gov.uk>]  
**Sent:** 26 November 2019 09:46  
**To:** ■ ■ <■ [richmondandwandsworth.gov.uk](mailto:richmondandwandsworth.gov.uk)>  
**Subject:** RE: Turing House School, Hospital Bridge Road

Official

Any news on the validation?



---

**From:** [REDACTED] [REDACTED] <[REDACTED][richmondandwandsworth.gov.uk](mailto:[REDACTED]@richmondandwandsworth.gov.uk)>

**Sent:** 25 November 2019 16:35

**To:** [REDACTED] [REDACTED] <[REDACTED][richmondandwandsworth.gov.uk](mailto:[REDACTED]@richmondandwandsworth.gov.uk)>; [REDACTED]  
<[REDACTED][london.gov.uk](mailto:[REDACTED]@london.gov.uk)>

**Subject:** RE: Turing House School, Hospital Bridge Road

Official

Hi [REDACTED]

Please see attached draft CUA which will be appended to the S106.

The only outstanding matter with TfL was the indexation and my reading of the latest Draft S106 (attached – page 1) is that the applicant has accepted this now.

Regards,

[REDACTED]

---

**From:** [REDACTED] [REDACTED] <[REDACTED][richmondandwandsworth.gov.uk](mailto:[REDACTED]@richmondandwandsworth.gov.uk)>

**Sent:** 25 November 2019 16:30

**To:** [REDACTED] [REDACTED] <[REDACTED][richmondandwandsworth.gov.uk](mailto:[REDACTED]@richmondandwandsworth.gov.uk)>

**Subject:** FW: Turing House School, Hospital Bridge Road

Official

---

**From:** [REDACTED] [REDACTED] <[REDACTED][london.gov.uk](mailto:[REDACTED]@london.gov.uk)>

**Sent:** 25 November 2019 16:25

**To:** [REDACTED] [REDACTED] <[REDACTED][richmondandwandsworth.gov.uk](mailto:[REDACTED]@richmondandwandsworth.gov.uk)>

**Subject:** RE: Turing House School, Hospital Bridge Road

[REDACTED]

I'm just waiting to hear back from [REDACTED] re the CUA and confirmation from TfL that the s106 covers everything it needs to so not quite yet no. Will keep you posted.

Thanks,

[REDACTED]

---

**From:** [REDACTED] [REDACTED] <[REDACTED][richmondandwandsworth.gov.uk](mailto:[REDACTED]@richmondandwandsworth.gov.uk)>

**Sent:** 25 November 2019 16:20

**To:** [REDACTED] [REDACTED] <[REDACTED][london.gov.uk](mailto:[REDACTED]@london.gov.uk)>

**Subject:** FW: Turing House School, Hospital Bridge Road

Official

[REDACTED]

Following our conversation this morning, could you let me know whether the GLA are in a position to validate the above application for Stage 2 purposes.

Thanks



Regards



**Strategic Applications Manager (Richmond)**  
**Serving Richmond and Wandsworth Councils**

**Tel:** 0208 891 [redacted]  
**Email:** [redacted]@richmondandwandsworth.gov.uk  
**Web:** [www.richmond.gov.uk](http://www.richmond.gov.uk) / [www.wandsworth.gov.uk](http://www.wandsworth.gov.uk)

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[REDACTED]

---

**From:** [REDACTED] <[REDACTED]@richmondandwandsworth.gov.uk>  
**Sent:** 06 December 2019 09:51  
**To:** [REDACTED]  
**Subject:** RE: Turing House School, Hospital Bridge Road

Official

Hi [REDACTED]

I've had a chat with [REDACTED]. Unfortunately, we are not comfortable adding a condition that was not considered by committee. Is it possible to recommend to the NCPU that the condition is added?

If you could advise of implications that would be helpful.

Regards,  
[REDACTED]

---

**From:** [REDACTED] <[REDACTED]@london.gov.uk>  
**Sent:** 04 December 2019 14:00  
**To:** [REDACTED] <[REDACTED]@richmondandwandsworth.gov.uk>  
**Subject:** RE: Turing House School, Hospital Bridge Road

[REDACTED]

Can you give me a quick call on this?

Thanks

[REDACTED]

**Principal Strategic Planner, Development and Projects**  
GREATERLONDONAUTHORITY  
City Hall, The Queen's Walk, London SE1 2AA  
020 7983 [REDACTED] | 020 7983 [REDACTED]

**london.gov.uk**

[REDACTED] [london.gov.uk](https://www.london.gov.uk)

---

**From:** [REDACTED] <[REDACTED]@richmondandwandsworth.gov.uk>  
**Sent:** 02 December 2019 16:01  
**To:** [REDACTED] <[REDACTED]@london.gov.uk>  
**Subject:** RE: Turing House School, Hospital Bridge Road

Official

Hi [REDACTED]

Unfortunately we can't add at this stage as the case has already been heard / decided by committee.

Can the GLA not recommend additional conditions at this stage?

Regards,

[REDACTED]

---

**From:** [REDACTED] <[REDACTED][london.gov.uk](mailto:[REDACTED]@london.gov.uk)>

**Sent:** 02 December 2019 11:30

**To:** [REDACTED] <[REDACTED][richmondandwandsworth.gov.uk](mailto:[REDACTED]@richmondandwandsworth.gov.uk)>

**Subject:** RE: Turing House School, Hospital Bridge Road

Hi [REDACTED]

Yes, I did receive a note from [REDACTED] I wanted to ask if you could attach a condition requiring the submission of a Fire Strategy to be drafted by a suitably qualified assessor to any permission? See policy D11 of the DLP if you need any info.

Thanks,

[REDACTED]

---

**From:** [REDACTED] <[REDACTED][richmondandwandsworth.gov.uk](mailto:[REDACTED]@richmondandwandsworth.gov.uk)>

**Sent:** 02 December 2019 09:50

**To:** [REDACTED] <[REDACTED][london.gov.uk](mailto:[REDACTED]@london.gov.uk)>

**Subject:** RE: Turing House School, Hospital Bridge Road

Official

Hi [REDACTED]

Free all day so feel free to give me a call. I believe [REDACTED] had contacted you to let you know that we were OK with delaying the validation?

Regards,

[REDACTED]

[REDACTED]

Senior Planning Officer (Strategic Development)  
Serving Richmond and Wandsworth Borough Councils  
020 8891 [REDACTED]

[\[REDACTED\]@richmond.gov.uk](mailto:[REDACTED]@richmond.gov.uk)

---

**From:** [REDACTED] <[REDACTED][london.gov.uk](mailto:[REDACTED]@london.gov.uk)>

**Sent:** 29 November 2019 13:46

**To:** [REDACTED] <[REDACTED][richmondandwandsworth.gov.uk](mailto:[REDACTED]@richmondandwandsworth.gov.uk)>

**Subject:** RE: Turing House School, Hospital Bridge Road

Would you mind giving me a quick call when you get a chance?

Thanks,

**Principal Strategic Planner, Development and Projects**

**GREATERLONDONAUTHORITY**

City Hall, The Queen's Walk, London SE1 2AA

020 7983 [REDACTED] | 020 7983 [REDACTED]

**london.gov.uk**

[london.gov.uk](https://www.london.gov.uk)

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**From:** [REDACTED] <[REDACTED][richmondandwandsworth.gov.uk](mailto:[REDACTED@richmondandwandsworth.gov.uk)>

**Sent:** 28 November 2019 08:36

**To:** [REDACTED] <[REDACTED][london.gov.uk](mailto:[REDACTED@london.gov.uk)>; [REDACTED]  
<[REDACTED][richmondandwandsworth.gov.uk](mailto:[REDACTED@richmondandwandsworth.gov.uk)>

**Subject:** RE: Turing House School, Hospital Bridge Road

Official

Apologies [REDACTED] I can confirm that will be the one appended to the CUA.

---

**From:** [REDACTED] <[REDACTED][london.gov.uk](mailto:[REDACTED@london.gov.uk)>

**Sent:** 28 November 2019 08:32

**To:** [REDACTED] <[REDACTED][richmondandwandsworth.gov.uk](mailto:[REDACTED@richmondandwandsworth.gov.uk)>; [REDACTED]  
<[REDACTED][richmondandwandsworth.gov.uk](mailto:[REDACTED@richmondandwandsworth.gov.uk)>

**Subject:** RE: Turing House School, Hospital Bridge Road

Both,

I note the CUA you have sent through is an earlier version. The applicant submitted a revised version (attached) which should be the version appended to the s106 agreement as it includes provisions for community use during the school holidays. Please confirm by return that this will be actioned.

Thanks,

---

**From:** [REDACTED] <[REDACTED][richmondandwandsworth.gov.uk](mailto:[REDACTED@richmondandwandsworth.gov.uk)>

**Sent:** 25 November 2019 16:35

**To:** [REDACTED] <[REDACTED][richmondandwandsworth.gov.uk](mailto:[REDACTED@richmondandwandsworth.gov.uk)>; [REDACTED]

<[REDACTED]@london.gov.uk>

**Subject:** RE: Turing House School, Hospital Bridge Road

Official

Hi [REDACTED]

Please see attached draft CUA which will be appended to the S106.

The only outstanding matter with TfL was the indexation and my reading of the latest Draft S106 (attached – page 1) is that the applicant has accepted this now.

Regards,

---

**From:** [REDACTED] <[REDACTED]@richmondandwandsworth.gov.uk>

**Sent:** 25 November 2019 16:30

**To:** [REDACTED] <[REDACTED]@richmondandwandsworth.gov.uk>

**Subject:** FW: Turing House School, Hospital Bridge Road

Official

---

**From:** [REDACTED] <[REDACTED]@london.gov.uk>

**Sent:** 25 November 2019 16:25

**To:** [REDACTED] <[REDACTED]@richmondandwandsworth.gov.uk>

**Subject:** RE: Turing House School, Hospital Bridge Road

[REDACTED]

I'm just waiting to hear back from [REDACTED] re the CUA and confirmation from TfL that the s106 covers everything it needs to so not quite yet no. Will keep you posted.

Thanks,

---

**From:** [REDACTED] <[REDACTED]@richmondandwandsworth.gov.uk>

**Sent:** 25 November 2019 16:20

**To:** [REDACTED] <[REDACTED]@london.gov.uk>

**Subject:** FW: Turing House School, Hospital Bridge Road

Official

[REDACTED]

Following our conversation this morning, could you let me know whether the GLA are in a position to validate the above application for Stage 2 purposes.

Thanks

Regards

**Strategic Applications Manager (Richmond)**  
**Serving Richmond and Wandsworth Councils**

**Tel:** 0208 891 [REDACTED]  
**Email:** [REDACTED][richmondandwandsworth.gov.uk](mailto:[REDACTED]@richmondandwandsworth.gov.uk)  
**Web:** [www.richmond.gov.uk](http://www.richmond.gov.uk) / [www.wandsworth.gov.uk](http://www.wandsworth.gov.uk)

This e-mail contains my opinion only that I give without prejudice to any consideration that the Local Planning Authority may give to an application on this site in the future.

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DATED \_\_\_\_\_ 2019

- (1) THE MAYOR AND BURGESSES OF THE  
LONDON BOROUGH OF RICHMOND  
UPON THAMES
- (2) THE MAYOR AND BURGESSES OF THE  
LONDON BOROUGH OF HOUNSLOW
- (3) SECRETARY OF STATE FOR HOUSING,  
COMMUNITIES AND LOCAL  
GOVERNMENT

AGREEMENT UNDER SECTION 106  
OF THE TOWN AND COUNTRY PLANNING ACT  
1990 (AS AMENDED)  
RELATING TO LAND AT HOSPITAL BRIDGE ROAD, TWICKENHAM TW2 6LH



THIS DEED OF AGREEMENT is made the                      day of                      2019

**B E T W E E N**

- (1)            **THE MAYOR AND BURGESSES OF THE LONDON BOROUGH OF RICHMOND UPON THAMES** of [                      ] ("the Council")
- (2)            **THE MAYOR AND BURGESSES OF THE LONDON BOROUGH OF HOUNSLOW** of [                      ] ("the Freeholder")
- (3)            **THE SECRETARY OF STATE FOR HOUSING, COMMUNITIES AND LOCAL GOVERNMENT** of 4<sup>th</sup> Floor Fry Building 2 Marsham Street London SW19 4DF ("the Developer")

**INTERPRETATION**

In this Deed the following words and expressions shall have the following meanings:-

"1990 Act"	means the Town and Country Planning Act 1990 (as amended)
"Bus Services"	additional bus journeys to coincide with school start and end times to and from the Property on bus routes to be agreed with the Council
"Bus Services Contribution"	means a contribution <a href="#">Indexed</a> towards the provision of the Bus Services in a sum to be agreed by the Developer and the Council acting reasonably in accordance with the provisions of paragraph 2 of Schedule 1 of this Deed which contribution shall comply with the requirements of Regulation 122 of The Community Infrastructure Regulations 2010 and which for the avoidance of doubt shall not exceed £1,175,000.00
"Commencement of Development"	means the carrying out of a material operation as defined by Section 56(4) of the 1990 Act in relation to the Development but shall not include the following:  (i)     site clearance;  (ii)    demolition work;  (iii)   ground investigatory site survey work;  (iv)   construction of boundary fencing or any other temporary means of enclosure;

	<p>(v) archaeological investigation;</p> <p>(vi) works of decontamination or remediation of other adverse ground conditions;</p> <p>(vii) diversion and laying of services;</p> <p>(viii) temporary access works; and</p> <p>(ix) temporary display of site notices or advertisements</p> <p>and the term <b>"Implemented"</b> and <b>"Implementation"</b> shall be construed accordingly</p>
<b>"Community Use Agreement"</b>	means an agreement to be made between the Council and the School Trust or such other entity as the Council considers appropriate substantially in the form of the agreement contained in <u>Appendix 1 to this Deed</u>
<b>"Development"</b>	means the development of the Property pursuant to the Planning Permission
<b>"Energy Strategy Contribution"</b>	means a contribution of £105,828.21 Indexed towards the Council's carbon offset fund
<b>"Footpath"</b>	means a footpath to be constructed in the north-east corner of Heathfield Recreation Ground in an exact location to be agreed by the Council and Developer acting reasonably
<b>"Footpath Contribution"</b>	means a contribution of £1,625 Indexed towards <u>the construction of the Footpath</u> ] <u>Indexed</u>
<b><u>"HDM"</u></b>	<u>The Council's Head of Development Management</u>
<b>"Highways Agreement"</b>	<p>means an agreement made pursuant to section 278 of the Highways Act 1980 which shall provide for the following works to be carried out:</p> <p>(i) construction of a simple priority junction access with entry treatment to be agreed with the Local Highway Authority;</p> <p>(ii) the removal of signs and markings at the northern end of the existing 20mph zone outside the Bishop Perrin School;</p> <p>(iii) the relocation of the existing gateway signage of the 20mph zone outside the Bishop Perrin School to a new location to be agreed with the local highway authority to the north of the site access;</p> <p>(iv) the construction of zebra pedestrian crossing (in addition to any other alternative safety measures deemed necessary to ensure</p>

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	<p>pedestrian and highway safety) on the B358 Hospital Bridge Road, together with dropped kerbs and tactile paving and any associated highway works, with the details to be agreed with the Local Highway Authority prior to commencement of the development;</p> <p>(v) the construction of new dropped kerbs and any associated highway works at the Montrose Avenue/B358 Hospital Bridge Road priority junction; and</p> <p>(vi) the insertion of a speed hump on the B358 Hospital Bridge Road to the <u>north and south</u> the site access to denote entry and exit from the above-mentioned 20mph zone</p>
<b>"Indexed"</b>	<p>increased in accordance with the following formula:</p> <p>Amount payable = the payment specified in this Deed x (A/B) where:</p> <p>A= the figure for the [Consumer Prices Index] that applied immediately preceding the date the payment is due.</p> <p>B= the figure for the [Consumer Prices Index] that applied when the index was last published prior to the date of this Deed.</p>
<b>"Monitoring Fee"</b>	means the sum of £5,412 to be paid to the Council for its costs in monitoring the planning obligations in this Deed
<b>"Occupy"</b>	means occupation for the purposes permitted by the Planning Permission but not including occupation by personnel engaged in construction, fitting out or decoration or occupation in relation to security operations and <b>"Occupied"</b> and <b>"Occupation"</b> shall be construed accordingly
<b>"Pedestrian Crossing Contribution"</b>	means the contribution of £120,000 Indexed towards improved pedestrian crossing facilities at the A316/Hospital Bridge Road junction to improve the safety of pedestrian and cyclists
<b>"Plan"</b>	means the plan attached numbered [ ]
<b>"Planning Application"</b>	means a planning application bearing reference number 18/3561/FUL for Change of use of part of the open grassland and adjacent horticultural nursery for the development of a 5FE Secondary School and Sixth Form (Class D1) for 1,050 pupils (750 secondary school places and 300 sixth form places). Development is to include the formation of a new north boundary line associated to the horticultural nursery, and the erection of a main teaching block and adjoining sports block, up to three storeys in height, and associated plant and mechanical equipment, 3 court MUGA, playing pitches, on site car park, cycle parking spaces, hard and soft landscaping; amendments to existing access road to provide dual access to Nursery and Turing House School; and associated public highway works. Additional

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	provision of an area of land to be dedicated as Public Open Space as an extension to Heathfield Recreation Ground; and the school will be subject to a Community Use Agreement
<b>"Planning Permission"</b>	means a planning permission resolved to be granted pursuant to the Planning Application subject to the prior completion of this Deed
<b>"Property"</b>	means land at Hospital Bridge Road, Twickenham TW2 6LH shown edged red on the Plan attached hereto
<b>"Public Open Space"</b>	means the land shown [ ] on the plan attached hereto to be provided as public open space and to be transferred from the Freeholder to the Council under the provisions of this Deed
<b>"Public Open Space Contribution"</b>	means the contribution of £153,809 Indexed towards the grassland restoration and five year management and maintenance of the Public Open Space
<b>"Recreation Ground Contribution"</b>	means the contribution of £28,500 Indexed towards the maintenance of Heathfield Recreation Ground, towards the provision of bins and benches on Heathfield Recreation Ground and towards further mitigation measures for the impact of the development on Heathfield Recreation Ground
<b>"School Travel Plan"</b>	<p>means a travel plan in respect of the Development on the Property, the objectives of which shall:</p> <ul style="list-style-type: none"> <li>(i) promote awareness of transport issues and the impact of traffic on the local environment;</li> <li>(ii) show a commitment to improving traffic conditions within the local area;</li> <li>(iii) influence the reduction in the level of private car journeys to and from the Development in order to reduce air pollution and the consumption of fossil fuels;</li> <li>(iv) maximise the proportion of journeys to from the Development by sustainable modes of transport such as walking cycling and public transport</li> <li>(v) to raise awareness of pupil safety at the school entrance at school peak times and throughout the day</li> </ul>
<b>"School Travel Plan Monitoring Fee"</b>	means the annual sum of £1,000 to be used by the Council for the monitoring of the School Travel Plan



<b>"School Trust"</b>	means the Russell Education Trust or such other organisation as operates the school on the Development from time to time
<b>"Statutory Undertaker"</b>	means any legal entity authorised by statute to carry on an undertaking for the supply of television, telecommunications, electricity, gas, water and/or drainage
<b>"Traffic Management Contribution"</b>	means £3,000 to seek to secure a traffic management order to: <ul style="list-style-type: none"> <li>• extend the existing Bishop Perrin 20mph Zone on the B358 Hospital Bridge Road from its current location to a position north of the railway bridge; and</li> <li>• insert double yellow lines on the B358 Hospital Bridge Road and Montrose Avenue as shown in Drawing No 007 Rev. E, and on both sides to a location agreed by the Highway Authority</li> </ul>
<b>"Working Day"</b>	means any day excluding Saturdays(-excepting the hours of 8am-1pm), Sundays and any statutory or bank holiday and the term <b>"Working Days"</b> shall be construed accordingly-

#### WHEREAS:

- (A) The Council is the local planning authority for the administrative area within which the Property is situate for the purposes of the 1990 Act and for the purpose of Section 106 of the 1990 Act is the local planning authority by whom the planning obligations contained within this Deed are enforceable
- (B) The Freeholder is registered at the Land Registry as the freehold owner of that part of the Property registered under title number AGL333340
- (C) The Developer is registered at the Land Registry as the leasehold owner of that part of the Property registered under title number TGL493814
- (D) The Council has resolved to approve the Planning Application and grant the Planning Permission subject to the prior completion of a deed of planning obligation under section 106 of the 1990 Act to secure the planning obligations now contained in this Deed.

#### NOW THIS DEED WITNESSETH as follows:

- 1 THIS Deed is made pursuant to Section 106 of the 1990 Act, Section 111 of The Local Government Act 1972, Section 16 of The Greater London Council (General Powers) Act

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1974, and Section 1 of The Localism Act 2011 and any other enabling statutory provisions.

2 The Developer and the Freeholder COVENANT with the Council to observe and perform the obligations and covenants contained in Schedule 1 to this Deed

3 The Council COVENANTS with the Developer and the Freeholder to observe and perform the obligations and covenants contained in Schedule 2 to this Deed

#### 4 MISCELLANEOUS AGREEMENTS AND DECLARATIONS

The Parties agree that:

- (a) The planning obligations contained in Schedule 1 to this Deed are conditional upon the grant of the Planning Permission and Implementation having occurred save for the provisions of paragraph 1 and paragraph 4 of Schedule 1 which shall have effect on the grant of Planning Permission;
- (b) nothing contained in this Deed constitutes a planning permission;
- (c) nothing contained or implied in this Deed shall prejudice or affect the rights powers duties and obligations of the Council in the exercise of its functions as local authority and its rights powers duties and obligations under all public and private statutes bye-laws and regulations may be as fully and effectually exercised as if the Council were not a party to this Deed;
- (d) if any provision in this Deed shall be held to be void invalid illegal or unenforceable or if voidable is avoided this shall not affect the operation validity legality and enforceability of any other provision of this Deed provided severance therefrom is possible;
- (e) a reference to the masculine feminine and neuter genders shall include the other genders and reference to the singular shall include the plural and vice versa;
- (f) a reference to a clause is a reference to a clause contained in this Deed;
- (g) the expressions "the Council" and "the Freeholder" and "the Developer" shall include their respective successors in title and assignees.

Commented [SW4]: TBC

**5 Local land charge provisions**

The Parties agree that:

- (a) This Deed is a Local Land Charge and shall be registrable by the Council in the Council's Register of Local Land Charges immediately on completion thereof;
- (b) The Council will, upon written request by the Freeholder or the Developer if applicable effect a cancellation of any entry made in the Local Land Charges Register in regard to this Deed forthwith after the obligations of the Freeholder or the Developer hereunder have been wholly performed or discharged.

**6 Reference to statutes and statutory instruments**

References in this Deed to any statutes or statutory instruments shall include and refer to any statute or statutory instrument amending consolidating or replacing them respectively from time to time and for the time being in force.

**7 Variations**

The Parties agree that:

- (a) the covenants undertakings and restrictions contained in this Deed shall only be capable of being varied by a memorandum to be endorsed upon or annexed to this Deed by or on behalf of the relevant parties hereto or by a subsequent deed of variation;
- (b) in the event that the Council shall at any time hereafter [REDACTED] a planning permission pursuant to an application made under section 73 of the 1990 Act in respect of the conditions in the Planning Permission (and for no other purpose whatsoever) references in this Deed to the Planning Application the Planning Permission and the Development shall (unless the Council requires otherwise) be deemed to include any such subsequent planning applications and planning permissions [REDACTED] as aforesaid and this deed shall henceforth take effect and be read and construed accordingly

**8 English law applicable**

The construction validity and performance of this Deed shall be governed by English law.

**9 Effect of revocation of planning permission**

In the event of the Planning Permission being revoked by the Council or any other authority having powers in relation to planning matters or otherwise withdrawn or modified by any statutory procedure without the consent of the Freeholder or the Developer or their successors in title the obligations of the Freeholder and the Developer under this Deed shall thereupon cease absolutely and in that event the Council will repay to the Freeholder or the Developer such monies as have been paid to it pursuant to the obligations contained within this Deed to the extent that they remain unspent.

**10 Waivers not to be of a continuing nature**

No waiver (whether express or implied) by any party to this Deed of any breach or default by any party to this Deed in performing or observing any of the terms and conditions of this Deed shall constitute a continuing waiver and no such waiver shall prevent any party to this Deed from enforcing any of the said terms or conditions or from acting upon any subsequent breach or default in respect thereto by the party in question.

**11 Liability of subsequent owner and release of former owner**

Subject to clause 3 the provisions hereof shall be enforceable by the Council against the Freeholder and the Developer and all persons who shall have derived title through or under them in respect of the Property (but so that no person shall be liable to the Council for any breach of the provisions committed after such a person has parted with all of its interest in such land) PROVIDED THAT a Statutory Undertaker which has an interest in the Property or part thereof for the purpose of its undertaking shall not be bound by the terms of this Deed or be liable for the breach of any covenant contained in this Deed.

**12 Future Planning Permissions**

Nothing in this Deed shall prohibit or limit the right to develop any part of the Property in accordance with a planning permission (other than the Planning Permission) granted



(whether or not on appeal) after the date of this Deed.

13      **Contracts (Rights of Third Parties) Act 1999**

The provisions of the Contracts (Rights of Third Parties) Act 1999 shall not apply to this Deed and no person who is not a party to this Deed is to have the benefit of or is capable of enforcing any term in this Deed and no party is to have any rights to enforce this Deed other than those falling within the definitions of the Council the Freeholder or the Developer.

14      **VAT clauses**

- (a) All consideration given in accordance with the terms of this Deed shall be exclusive of any VAT properly payable in respect thereof;
- (b) If at any time VAT is or becomes chargeable in respect of any supply made in accordance with the terms of this Deed then to the extent that VAT had not previously been charged in respect of that supply the person making the supply shall have the right to issue a VAT invoice to the person to whom the supply was made and the VAT shall be paid accordingly subject to the provision of a valid VAT invoice.

15      **Community Infrastructure Levy Regulations 2010**

The terms of this Deed comply in all respects with the requirements of Regulation 122 of the Community Infrastructure Levy Regulations 2010 in that the obligations contained herein are necessary to make the Development acceptable in planning terms, directly relate to the Development and fairly and reasonably related in scale and kind to the Development.

16      **Dispute Resolution**

The Parties agree that:

- (a) in the event of any dispute arising in respect of any matter contained in this Deed save as to matters regarding its legal construction then unless the relevant part of the Deed indicates to the contrary the same shall be referred to an expert being an independent person to be agreed upon between the Parties hereto or

at the request and option of either of them to be nominated at their joint expense by or on behalf of the President for the time being of the Royal Institution of Chartered Surveyors and such expert shall act as an expert and not as an arbitrator and whose decision shall be final and binding on the Parties hereto and whose costs shall be in his award;

- (b) that the expert shall be appointed subject to an express requirement that he reaches his decision and communicates it to the Parties within the minimum practicable timescale allowing for the nature and complexity of the dispute and in any event not more than twenty eight (28) days from the date of his appointment to act;
- (c) that the expert shall be required to give notice to each of the said Parties inviting each of them to submit to him within ten (10) working days written submissions and supporting material and shall afford to each of the said Parties an opportunity to make counter submissions within a further five (5) working days in respect of any such submission and material and his decision shall be given in writing within twenty eight (28) days of this appointment with reasons and in the absence of manifest error shall be binding on the said Parties;
- (d) the costs of any reference of any dispute shall be paid jointly by the Freeholder and the Developer and the Council unless otherwise determined in the independent person's award.

#### 17 **Reasonableness**

Where the agreement, approval, consent or expression of satisfaction is required by the Freeholder or the Developer from the Council under the terms of this Deed such agreement, approval or consent or expression of satisfaction shall not be unreasonably withheld or delayed.

#### 18 **Service**

Any notice under this Deed shall be in writing and shall be sufficiently served if personally delivered or sent by recorded delivery service addressed in the case of the Council unless otherwise stated herein to the HSC at the address given herein and in the case of the Freeholder or the Developer at the address given herein or the their respective registered office address from time to time.

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IN WITNESS whereof with the intent that these presents should be executed as a deed the Parties  
hereto have duly executed the same the day and year first before written

## Schedule 1

### COVENANTS BY THE FREEHOLDER AND THE DEVELOPER

#### Notifications

1. The Freeholder and the Developer covenant to provide the HDM with not less than 10 Working Days' prior written notice of each of the following:

1.1 Commencement of the Development (which notice shall include an anticipated commencement date) and;

1.2 Occupation of the Development.

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#### Contributions

2 Prior to commencement of the Development the Developer shall pay to the Council:

12.1 the Recreation Ground Contribution

12.2 the Public Open Space Contribution

12.3 [one fifth]of the Bus Services Contribution provided that prior to such payment the Council has provided to the Developer evidence supplied by Transport for London that the Development has generated need for expenditure on the Bus Services and Provided Further That no agreement has been reached between HM Treasury and Transport for London on the status of the Transport for London Funding Agreement for the funding of bus provision to support new Free Schools across London and if either of these provisos arise no Bus Services Contribution shall be payable.

12.4 the Pedestrian Crossing Contribution

12.5 the Traffic Management Contribution

12.6 the Footpath Contribution [insert obligation]

3 Prior to Occupation of the Development the Developer shall pay to the Council the Energy Strategy Contribution:

4 Upon each anniversary of the date of first Occupation of the Development the Developer shall pay to the Council one fifth of the Bus Services Contribution until the Bus Services



Contribution has been paid in full provided that prior to each such payment the Council shall have provided to the Developer evidence approved by Transport for London that the Development has generated need for further expenditure on the Bus Services and Provided Further That no agreement has been reached between HM Treasury and Transport for London on the status of the Transport for London Funding Agreement for the funding of bus provision to support new Free Schools across London and if either of these provisos arise no Bus Services Contribution (other than any Bus Services Contribution already paid) shall be payable.

### Public Open Space

~~5. 1 Not to Occupy Prior to Commencement of the Development until the Developer has will surrendered its legal interest in the Public Open Space Land~~

~~5.2 As soon as reasonably practicable following the surrender of the Developer's legal interest in the Public Open Space land, and in any event before Occupation the Freeholder will transfer its freehold title grant to the Council a lease of to the Public Open Space to the Council for a term of not less than [ ] years in accordance with the Heads of Terms in Schedule 3 this Deed~~

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### Costs

3. The Developer shall pay to the Council the sum of one thousand pounds (£1,000) being its proper and reasonable costs for the preparation and completion of this Deed and the Monitoring Fee on the date hereof.

### **School Travel Plan**

- 4.1 There shall be no Occupation of the Development until the Freeholder or the Developer or the School Trust has prepared and submitted to the Council the School Travel Plan in accordance with current Transport for London Travel Plan Guidance on the STARS Travel Plan system for the Council's approval (such approval not to be unreasonably withheld or delayed).
- 4.2 The School Travel Plan shall:
- 4.2.1 seek to retain Gold level accreditation
- include baseline information relating to the existing transport situation in the area travel survey information and proposed responsibilities actions and targets (with completion dates) and effective means of delivering and achieving these actions and targets, effective measures for ongoing monitoring of the Travel Plan; and
- 4.2.2 provide for the appointment of a Travel Plan Coordinator and where (and on each occasion that) the person holding the position of Travel Plan Coordinator shall (for any reason) cease to act the Freeholder or the Developer shall appoint another person to that role and notify the Council as to the identity of the person.
- 4.3 Following the Occupation of Development and at all times thereafter the Freeholder and Developer and the School Trust shall operate and comply with the requirements of the approved School Travel Plan and implement the Travel Plan proposals, targets, measures and programmes of implementation.
- 4.4 In each of the five years after the first Occupation of the Development the Developer shall pay the Council a fee of £1,000 and submit a monitoring report and the School Travel Plan on the STARS system (or any other such system that may be in place) which shall demonstrate how the School Travel Plan has been operated during the preceding twelve month period which report shall include (where appropriate) any additional or remedial measures required to be undertaken to ensure compliance with the requirements of the School Travel Plan (and such additional or remedial measures shall be deemed to be incorporated in and form part of the School Travel Plan)
- 4.5 On the first Occupation of the Development and on each anniversary of the date of the first Occupation (up to and including the fourth anniversary after which the obligation in this clause shall cease) the Developer shall pay the School Travel Plan Monitoring Fee to the Council.

### **Community Use Agreement**

5.1

There shall be no Occupation of the Development Site until the Community Use Agreement has been agreed and entered into.

5.2 The Development shall not be Occupied other than in accordance with the approved Community Use Agreement.

### **Highways Agreement**

7.1 There shall be no Occupation of y the Development until the Highways Agreement has been agreed and entered into.

7.2 The Development shall not be Occupied other than in accordance with the approved Highways Agreement

## Schedule 2

### Covenants by the Council

1. The Council covenants with the Freeholder and the Developer:
  - 1.1 to act reasonably, properly and diligently in exercising their discretion and discharging their functions under this Deed. In particular, where any notice, consent, approval, authorisation, agreement or other similar affirmation is required under the terms of the Deed, the Council will not unreasonably withhold or delay such notice, consent, approval, authorisation, agreement or other similar affirmation; and
  - 1.2 to use all sums received from the Developer or the Freeholder under the terms of this Deed for the purpose(s) specified in this Deed for which they are paid.

### Schedule 3

~~1.2~~ [Heads of Terms of lease]

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**THE COMMON SEAL of the MAYOR  
AND BURGESSES  
OF THE LONDON BOROUGH OF  
RICHMOND UPON THAMES** was  
hereunto affixed in the presence of:-

)  
)  
)  
)  
)

Authorised Officer

Seal Reg. No.

**THE COMMON SEAL of the MAYOR  
AND BURGESSES  
OF THE LONDON BOROUGH OF  
HOUNSLOW** was  
hereunto affixed in the presence of:-

)  
)  
)  
)  
)

Authorised Officer

Seal Reg. No.

The **CORPORATE SEAL** of the )  
**SECRETARY OF STATE FOR HOUSING** )  
**COMMUNITIES AND LOCAL** )  
**GOVERNMENT** hereunto affixed )  
and authenticated )  
in the presence of ) Authorised signatory:

**APPENDIX 1**  
**COMMUNITY USE AGREEMENT**



[REDACTED]

---

**From:** [REDACTED] <[REDACTED]@richmondandwandsworth.gov.uk>  
**Sent:** 16 December 2019 15:55  
**To:** [REDACTED]  
**Subject:** RE: Turing House School

Official

Thanks for letting me know.

---

**From:** [REDACTED] <[REDACTED]@london.gov.uk>  
**Sent:** 16 December 2019 15:50  
**To:** [REDACTED] <[REDACTED]@richmondandwandsworth.gov.uk>  
**Subject:** RE: Turing House School

Sorry – yes.

---

**From:** [REDACTED] <[REDACTED]@richmondandwandsworth.gov.uk>  
**Sent:** 16 December 2019 15:49  
**To:** [REDACTED] <[REDACTED]@london.gov.uk>  
**Subject:** RE: Turing House School

Official

Im assuming that's letting the Councils decision stand.

Just need to refer to the NPCU now!

---

**From:** [REDACTED] <[REDACTED]@london.gov.uk>  
**Sent:** 16 December 2019 15:46  
**To:** [REDACTED] <[REDACTED]@richmondandwandsworth.gov.uk>  
**Subject:** RE: Turing House School

[REDACTED]

All signed off. Planning admin will send the decision through this afternoon/ first thing tomorrow.  
Thanks,  
[REDACTED]

---

**From:** [REDACTED] <[REDACTED]@richmondandwandsworth.gov.uk>  
**Sent:** 16 December 2019 11:15  
**To:** [REDACTED] <[REDACTED]@london.gov.uk>  
**Subject:** RE: Turing House School

Official

Thanks – I am likely to be contacted by councillors.

Are we allowed to know your recommendation?

---

**From:** [REDACTED] <[REDACTED]@london.gov.uk>  
**Sent:** 16 December 2019 11:14

To: [REDACTED] [REDACTED] <[REDACTED]@richmondandwandsworth.gov.uk>  
Subject: RE: Turing House School

Later this afternoon (meeting is 3-4pm).

---

From: [REDACTED] [REDACTED] <[REDACTED]@richmondandwandsworth.gov.uk>  
Sent: 16 December 2019 11:07  
To: [REDACTED] <[REDACTED]@london.gov.uk>  
Subject: RE: Turing House School

Official

Do you know when we are likely to hear?

---

From: [REDACTED] <[REDACTED]@london.gov.uk>  
Sent: 29 November 2019 14:50  
To: [REDACTED] [REDACTED] <[REDACTED]@richmondandwandsworth.gov.uk>  
Subject: RE: Turing House School

Thank-you [REDACTED]

---

From: [REDACTED] [REDACTED] <[REDACTED]@richmondandwandsworth.gov.uk>  
Sent: 29 November 2019 14:49  
To: [REDACTED] <[REDACTED]@london.gov.uk>  
Subject: RE: Turing House School

Official

The LPA will accept the 16<sup>th</sup> December as the latest date.

---

From: [REDACTED] <[REDACTED]@london.gov.uk>  
Sent: 29 November 2019 14:48  
To: [REDACTED] [REDACTED] <[REDACTED]@richmondandwandsworth.gov.uk>  
Subject: Turing House School

Hi [REDACTED]

I've tried to call – not to pester, I just wanted to clarify something. I'd appreciate a quick call back when you get a chance.

Thanks,

[REDACTED]

[REDACTED]

**Principal Strategic Planner, Development and Projects**

GREATERLONDONAUTHORITY

City Hall, The Queen's Walk, London SE1 2AA

020 7983 [REDACTED] | 020 7983 [REDACTED]

**london.gov.uk**

[REDACTED] [london.gov.uk](https://www.london.gov.uk)

Turing House School

Energy Strategy

FS0316-CPW-00-XX-RP-N-0007

DOCUMENT REVISION HISTORY			Ref:	FS0316-CPW-00-XX-RP-N-0007
Rev	Author	Verification	Date	Comments / Status
P01	A.Howard	M.Wrate	12/10/18	Planning Issue for Comment
P02	A.Howard	M.Wrate	22/10/18	Planning Issue
P03	A.Howard	M.Wrate	11/03/19	Revised in Accordance with Stage 1 Consultation Comments

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# BRUKL Output Document

Compliance with England Building Regulations Part L 2013



HM Government

Project name

**Turing House School**

As designed

Date: Tue Mar 05 10:35:52 2019

## Administrative information

### Building Details

Address: Hospital Bridge Road, Twickenham, TW2 6LH

### Owner Details

Name:

Telephone number:

Address: , ,

### Certification tool

Calculation engine: Apache

Calculation engine version: 7.0.10

Interface to calculation engine: IES Virtual Environment

Interface to calculation engine version: 7.0.10

BRUKL compliance check version: v5.4.b.0

### Certifier details

Name:

Telephone number:

Address: , ,

## Criterion 1: The calculated CO<sub>2</sub> emission rate for the building must not exceed the target

CO <sub>2</sub> emission rate from the notional building, kgCO <sub>2</sub> /m <sup>2</sup> .annum	13
Target CO <sub>2</sub> emission rate (TER), kgCO <sub>2</sub> /m <sup>2</sup> .annum	13
Building CO <sub>2</sub> emission rate (BER), kgCO <sub>2</sub> /m <sup>2</sup> .annum	8.5
Are emissions from the building less than or equal to the target?	BER ≤ TER
Are as built details the same as used in the BER calculations?	Separate submission

## Criterion 2: The performance of the building fabric and fixed building services should achieve reasonable overall standards of energy efficiency

Values which do not achieve the standards in the Non-Domestic Building Services Compliance Guide and Part L are displayed in red.

### Building fabric

Element	U <sub>a</sub> -Limit	U <sub>a</sub> -Calc	U <sub>i</sub> -Calc	Surface where the maximum value occurs*
Wall**	0.35	0.21	0.26	FF000009:Surf[0]
Floor	0.25	0.21	0.21	GF000000:Surf[0]
Roof	0.25	0.16	0.16	FF000032:Surf[0]
Windows***, roof windows, and rooflights	2.2	1.33	1.35	GF000006:Surf[1]
Personnel doors	2.2	-	-	No Personnel doors in building
Vehicle access & similar large doors	1.5	-	-	No Vehicle access doors in building
High usage entrance doors	3.5	-	-	No High usage entrance doors in building

 U<sub>a</sub>-Limit = Limiting area-weighted average U-values [W/(m<sup>2</sup>K)]

 U<sub>a</sub>-Calc = Calculated area-weighted average U-values [W/(m<sup>2</sup>K)]

 U<sub>i</sub>-Calc = Calculated maximum individual element U-values [W/(m<sup>2</sup>K)]

\* There might be more than one surface where the maximum U-value occurs.

\*\* Automatic U-value check by the tool does not apply to curtain walls whose limiting standard is similar to that for windows.

\*\*\* Display windows and similar glazing are excluded from the U-value check.

N.B.: Neither roof ventilators (inc. smoke vents) nor swimming pool basins are modelled or checked against the limiting standards by the tool.

Air Permeability	Worst acceptable standard	This building
m <sup>3</sup> /(h.m <sup>2</sup> ) at 50 Pa	10	5

Page 1 of 17

Figure 0.1 - BRUKL Report for Building Including PV before adding further Carbon Reductions

## Executive Summary

This Energy statement is intended to support the planning application for the proposed Turing House School development in Twickenham, South-West London. The energy statement and approach to the design follows the London Plan Energy hierarchy of 'Be Lean', 'Be Clean', and 'Be Green' as described herewith.

The project has been designed to meet exemplar design standards for education buildings based upon the Education and Skills Funding Authority (ESFA) briefing document, known as the Output Specification (OS). The OS enhances the design in a number of areas including the internal environment beyond educational buildings designed to meet the traditional Building Bulletins where these benefits are not captured by the Part L compliance calculations (BRUKL). This energy statement demonstrates where the enhanced design further reduces the operational Carbon Dioxide (CO<sub>2</sub>) emissions not reflected within the Part L BRUKL calculation.

In addition to the passive design techniques adopted, the building has been designed with a 'Fabric First' approach whereby the construction budget is invested in the building fabric and energy efficiency measures, rather than relying on renewable energy technologies. This approach has led to 7.69 % betterment over Part L 2013 as described in the report. As can be seen in the table below, the fabric first energy strategy, in addition to the 'Be Green' measures demonstrate that the overall CO<sub>2</sub> emission reduction for the project equates to over 38 tonnes per annum, a reduction of 35% over the notional building in accordance with London Plan policy. The initial Part L analysis BRUKL report before applying photovoltaic panels is included in Appendix A1. The BRUKL in Appendix A1 shows the Fabric First Approach savings as shown in the below table. **It is important to highlight that this does not include the full extent of the savings of which avoiding active cooling and reducing domestic hot water provides additional savings to meet the target of 35% as discussed and shown in Appendix B.**

	Carbon Dioxide Emissions for Non-Domestic Buildings (Tonnes CO <sub>2</sub> per annum)
Baseline: Part L 2013 of the Building Regulations Compliant Development	108.828
'Be Lean' - After Energy Demand Reduction	100.457
'Be Clean' - After Heat Network / CHP	100.457
'Be Green' - After Renewable Energy	70.738

The below table also indicates that the development achieves around 27% CO<sub>2</sub> reduction from onsite renewables.

	Regulated Domestic Carbon Dioxide Savings	
	TonnesCO <sub>2</sub> /year	% CO <sub>2</sub> reduction for building
Savings from Energy Demand Reduction	8.371	7.69%
Savings from Heat Network / CHP	0	0%
Savings from Renewable Energy	29.718	27.31%
<b>Cumulative on-Site Savings</b>	<b>38.090</b>	<b>35%</b>

The carbon emission savings outlined in the table above is presented on the graph below in the GLA format to demonstrate the CO<sub>2</sub> savings against each item relative to the GLA target.

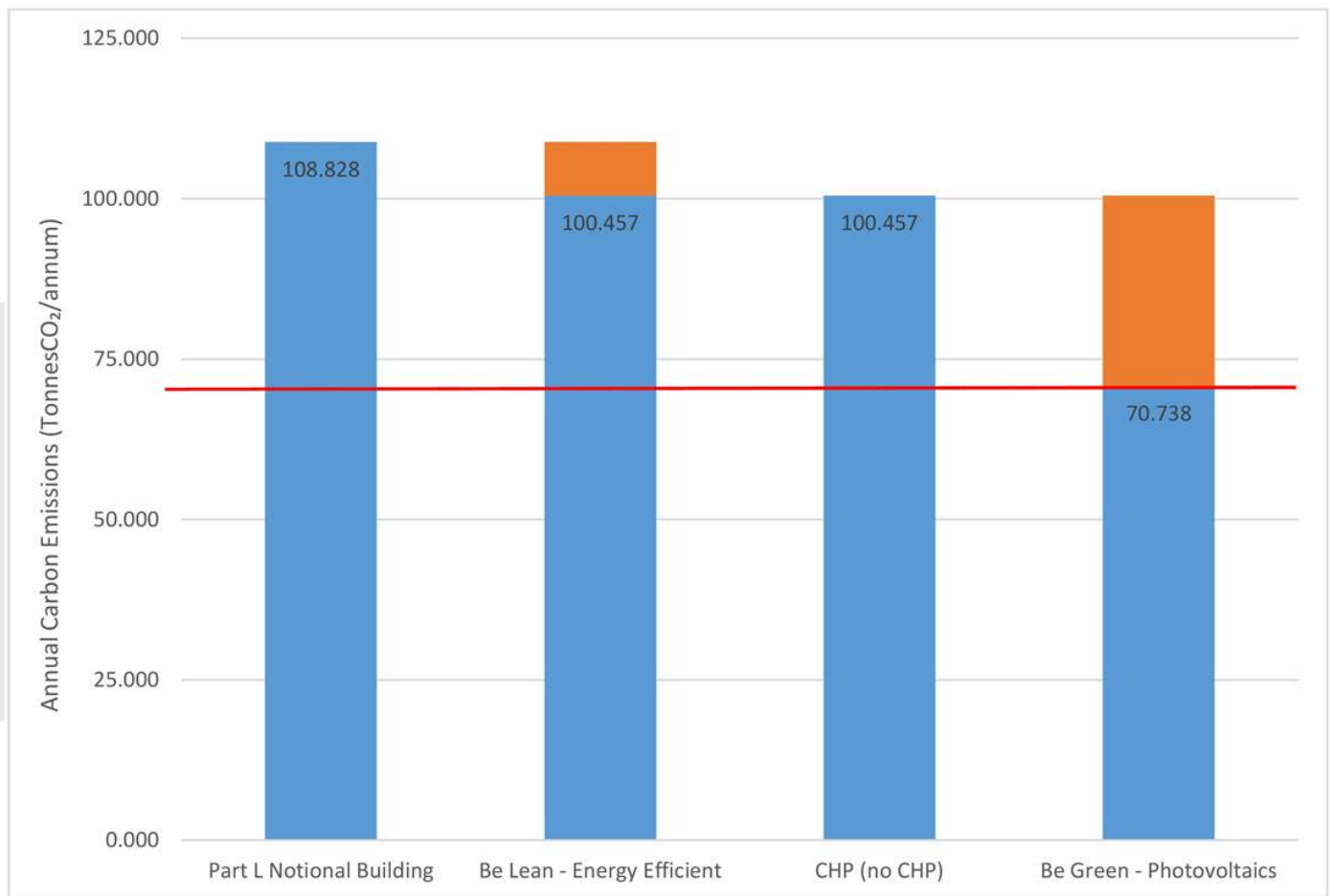


Figure 0.2 - Resultant Carbon Reduction to meet GLA Target of 35% Reduction below Part L 2013

As can be seen in the table above, the GLA 35% CO<sub>2</sub> emission reduction target is shown by the red line. **The further carbon savings shown in Appendix B shows that it is expected that the building will surpass the GLA 35% target when considering further carbon emission savings.**

The site is not situated close to an existing district heating network and subsequently the building is not proposed for connection to such a system. However, the building services design incorporates the provision to connect to a future district heating network should one become available. The building is to be provided with heat via a single energy centre to provide heat via a single system. This single heating network will also enable future connections or change in heating technology plant for both zones.

## 1.0 Introduction

Couch Perry Wilkes are appointed by Bowmer & Kirkland as the Mechanical and Electrical design consultants for the Turing House School Development. This Energy Statement is intended to support the planning application for the proposed secondary school educational facility in Twickenham, South-West London. The project Energy Statement has been written to meet the Greater London Authority's guidance on preparing energy statements.

The proposed development consists of approximately 8,372m<sup>2</sup> of new build education facility. The proposed new facility shall provide education facilities to approximately 1,050 pupils of ages 11 to 18 (Sixth Form). The development is a superblock design with a sports block attached to the end as shown in the image below.



*Figure 1.1 - Architects' Vision of Constructed Proposed Building*

*Image courtesy of Stride Treglown Architects*



## 2.0 Exemplar Design Standards

The Education and Skills Funding Agency (ESFA) introduced a new briefing document in June 2013. This briefing document, called the Output Specification (OS), has recently been updated and has been included in the briefing documents for this project. The OS includes several significant design standards that were not included in the previous version of the Building Bulletins for School designs.

The resultant outcome of a design that is compliant with the ESFA's OS briefing document, such as Turing House School is a building with an internal environment that is significantly better and a reduced energy consumption, than an education facility designed to meet the Building Bulletins. Four key enhancements of the internal environment are as follows: -

- a) Climate Based Daylight Modelling (CBDM)
- b) Encouragement to eliminate active cooling from the building in favour of passive cooling measures
- c) Overheating Assessment to meet TM52
- d) Reduction in water consumption, most notably hot water consumption

The following sub sections describe each of these performance criteria and the benefits that they bring to the Turing House School design.

### 2.1 Climate Based Daylight Modelling

Previously schools were designed by using daylight factor (DF). The provision of natural daylight for Turing House School has been designed utilising Climate Based Daylight Modelling (CBDM) as analysed by Arup. CBDM improves on DF by analysing natural light levels across the course of the year and considering site orientation and local weather conditions.

There are a few extra considerations taken into account that is not included in DF:

- Site orientation.
- Local weather conditions (using weather file).
- Direct sunlight.
- Building occupancy times.
- Analysis of a whole year of data.

CBDM calculations have a number of possible metrics that measure the available daylight over the course of the year. The OS has stipulated that daylight autonomy and useful daylight indicator are both simulated, and pass set threshold values. The results for the spaces on Ground, First and Second Floor of the School are shown in the figure below for illustrative purposes.



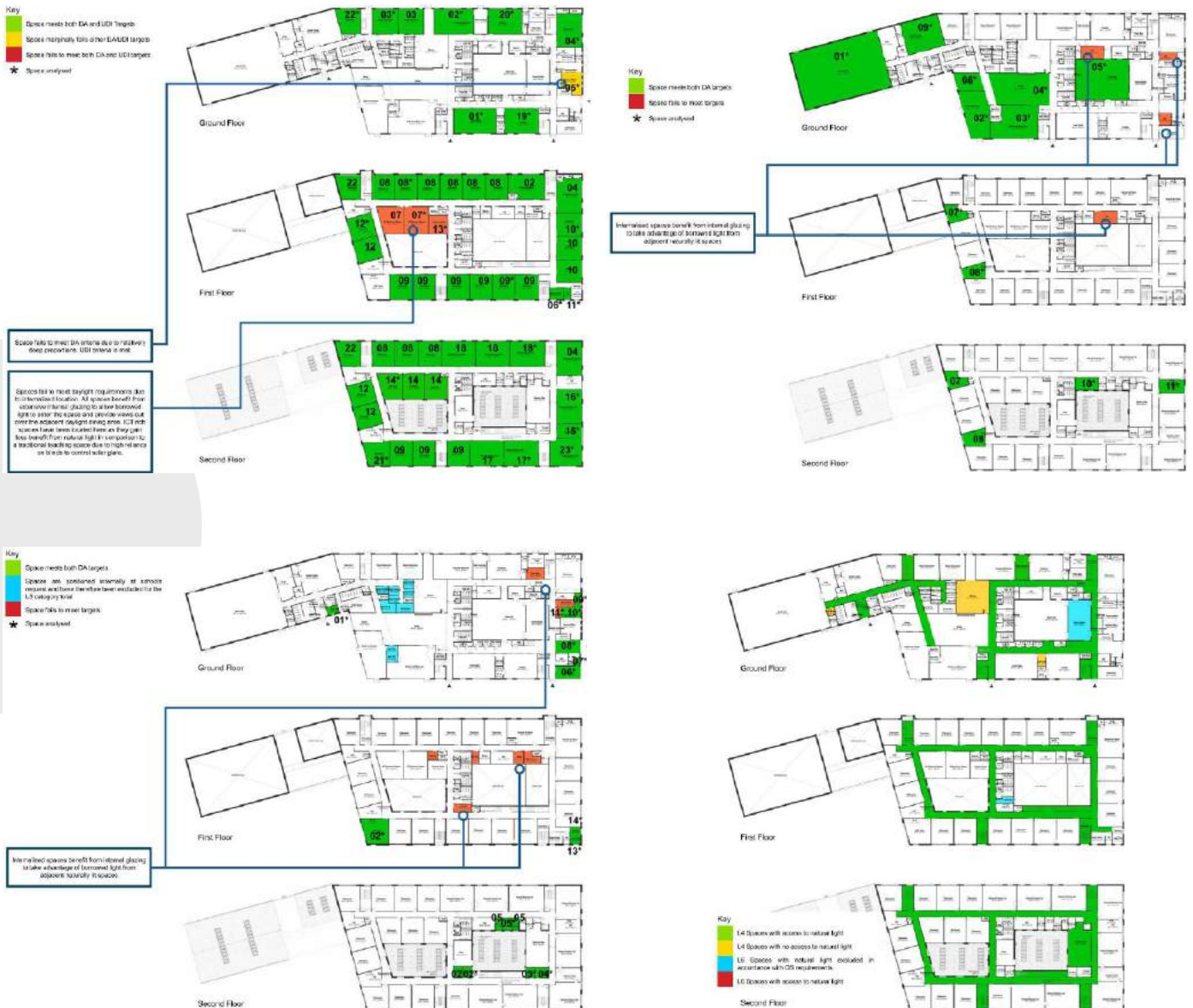


Figure 2.1 - Excerpt from Daylight Analysis Report

Image courtesy of Arup

This approach to the optimisation of natural light entering the building ensures that the space is not over-lit, as was the case when using the minimum DF approach. By avoiding having too much natural light this avoids the scenario of blinds down and lights on that results in excessive energy consumption for artificial lighting. In addition, by limiting the amount of natural light to only what is 'useful' helps to limit solar gains that would otherwise lead to overheating problems.

## 2.2 Eliminating Active Cooling in Favour of Passive Cooling Measures

As discussed in section 2.1, the proportion of glazing has been optimised to provide a 'useful' daylight provision that will not result in excessive daylight. In addition, the type of glazing selected is orientation specifically to ensure where direct sunlight would reach the façade, a solar performance glazing (g-value = 0.37) is utilised to reduce solar gain that may otherwise lead to overheating.

The project proposes to utilise a mixed-mode ventilation strategy to maximise energy efficiency. During winter months, heat is recovered but when outdoor conditions permit, windows are opened to reduce the reliance upon the heat recovery unit thus saving energy. The mixed-mode ventilation strategy operates on a room-by-room basis, ensuring that each room can provide the ideal conditions and ensure it is operating in the most energy efficient manner possible. The ventilation unit is controlled by a wall mounted touch screen LCD controller providing live data feedback on the environmental conditions and allowing the occupants direct control over their environment.

In addition to the mixed mode ventilation strategy, the majority of occupied spaces utilise an exposed concrete soffit and night purge strategy to achieve excellent passive cooling performance. By providing a room-by-room approach to the ventilation controls, every room has the optimum night purge for that space based upon that room's particular requirement (i.e. orientation, internal heat gains, usage pattern etc.). The control arrangement for the night-purge strategy is as per the BSRIA recommendations based upon research to ensure the solution works correctly. This overall approach ensures that each individual room is not over-cooled or under-cooled giving an optimised passive cooling design solution for the building. Figure 2.2 below shows the typical classroom environmental strategy.

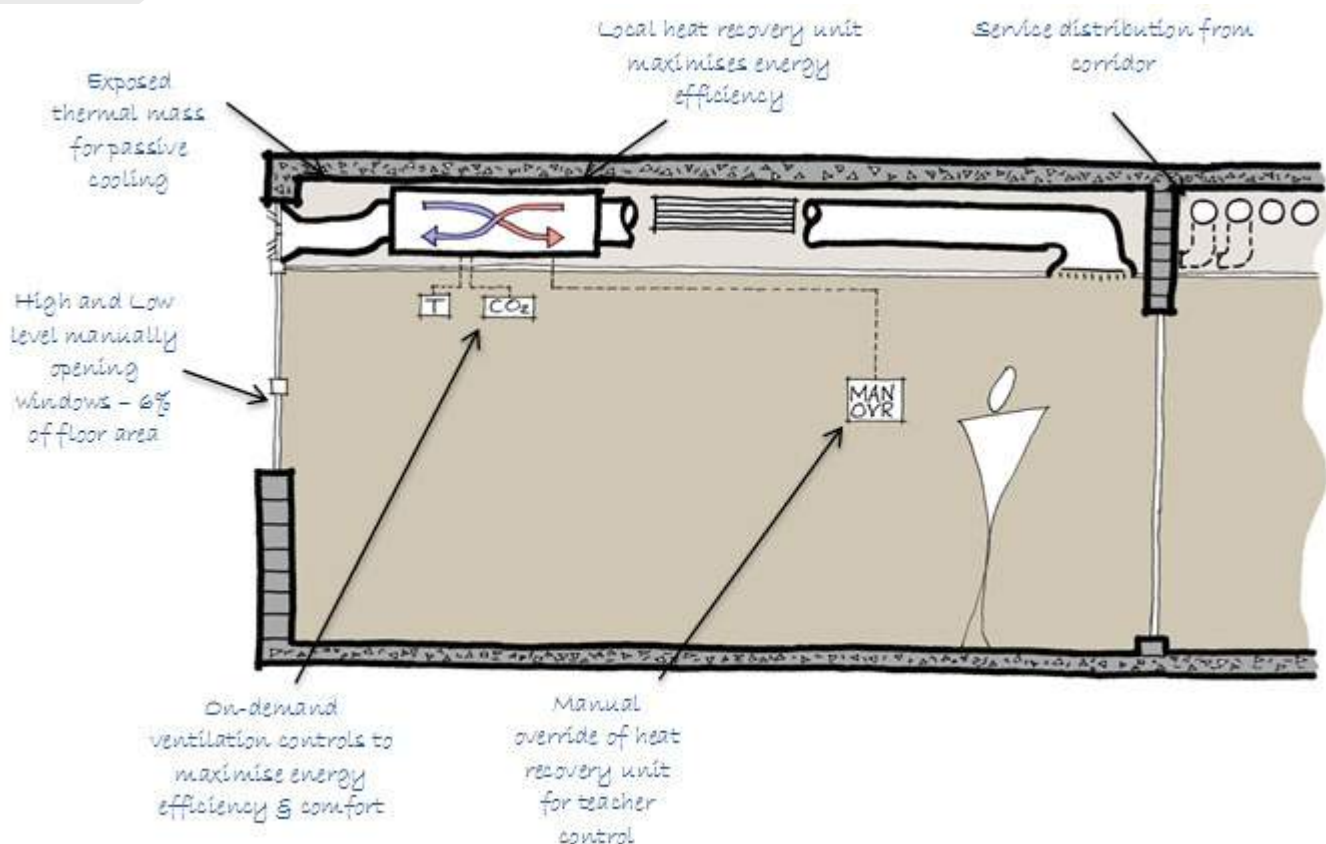


Figure 2.2 – Proposed environmental strategy for typical classroom – Turing House School

The building utilises several passive solutions to comply with overheating risk criteria without the requirement for active cooling systems in the occupied areas of the building. **As there are no active cooling systems providing comfort cooling throughout the building, there is no comfort cooling energy demand to report.**

The requirement for cooling has been minimised in accordance with the London Plan Cooling Hierarchy as described below:

1. Internal heat generation – Efficient lighting has been utilised throughout to minimise lighting heat gains.
2. Reduce the amount of heat entering a building in summer – Has been limited by use of blinds that allow the occupants to balance useful daylight and heat gains. Rooms with higher internal gains, such as IT spaces and science laboratories have been positioned so that they are not facing south to minimise solar gains. Window sizes have been optimised throughout to keep solar gains to a minimum, whilst providing useful daylight as analysed using CBDM (as described in section 2.1).
3. Manage the heat within the building – Use of exposed thermal mass and night cooling in occupied spaces allows the heat to be absorbed during hot spells and released and removed during unoccupied times.
4. Passive ventilation – Has been provided by window openings throughout in occupied spaces to allow occupants control of their environment. Traffic light style feedback in ventilation controllers indicate when the room is warm to help the occupants determine when windows should be opened.
5. Mechanical ventilation – Is included in addition to passive ventilation which automatically operates in accordance with the room temperature and carbon dioxide to continuously maintain operative temperature.
6. Active cooling systems – Have been excluded from the current design, other than to maintain server room temperature. This shall only be introduced as a measure should the building suffer in a prolonged period of sustained warmth which would be deemed as a rare occurrence.

## 2.3 Overheating Assessment against TM52

The outcome of the adopted design strategy is a building that exceeds the requirements of TM52 whilst **eliminating the need for active cooling throughout the building** (except for the server room and control rooms). The results from some of the key spaces within the building are shown below. To pass the test to comply with the requirements of the OS, is that Criterion 1 is not exceeded by more than 40 hours (equates to 6.17%).

The weather file/scenario used to simulate the summer to the area of the proposed school was London\_LHR\_DSY1\_2020High50. This is a predicted design summer year file which represents a hotter than 'usual' climate and therefore provides a worst-case scenario for testing overheating of occupied rooms.



Room Analysed	Criterion 1 hours of exceedance (He), < 6.17%	Criterion 2 daily weighted exceedance (We), <6	Criterion 3 upper limit temperature (Tupp), <4K
Main Hall	4.8	13	4K
Pass/Fail	Pass	Fail	Pass
Room Analysed	Criterion 1 hours of exceedance (He), < 6.17%	Criterion 2 daily weighted exceedance (We), <6	Criterion 3 upper limit temperature (Tupp), <4K
Dining Hall	0.9	2	2K
Pass/Fail	Pass	Pass	Pass
Room Analysed	Criterion 1 hours of exceedance (He), < 6.17%	Criterion 2 daily weighted exceedance (We), <6	Criterion 3 upper limit temperature (Tupp), <4K
Typical Classroom	4.7	13	5K
Pass/Fail	Pass	Fail	Fail
Room Analysed	Criterion 1 hours of exceedance (He), < 6.17%	Criterion 2 daily weighted exceedance (We), <6	Criterion 3 upper limit temperature (Tupp), <4K
Sports Hall	0.4	2	1K
Pass/Fail	Pass	Pass	Pass

From the table above, it can be seen that all of the rooms are PASSING. To clarify, any 'fail' results shown in the criterion 2 or 3 columns does not indicate that the room is failing the OS TM52 criteria as criterion 1 is passing, so therefore is of acceptable risk. The full results can be found in Appendix C1.

Circulation spaces have also been assessed to determine they are at suitable low risk of overheating and have also been assessed against TM52 criterion 1. All circulation spaces pass the overheating risk assessment criteria and is summarised in Appendix C1.

## 2.4 Overheating Assessment against TM49

As well as modelling the building against TM52 criteria as described above, the building has been simulated against the three TM49 weather scenarios. The results of the TM49 weather scenario overheating simulations have been collated in Appendix C. The location used for this assessment has been Heathrow with the following files:

London\_LHR\_DSY1 (Appendix C2)

London\_LHR\_DSY2 (Appendix C3)

London\_LHR\_DSY3 (Appendix C4)

The simulation has been undertaken with regards to the BB101 criteria for overheating risk in schools, using the weather files described above. The analysis has assumed full occupancy during the non-heating period only, as per the BB101 methodology. The criteria used for determining whether the space is at risk of overheating remains to be Criterion 1, where any value reported below 6.1% is determined to be of acceptable risk. The TM49 analysis shows the design against extreme conditions under normal occupancy and proves the risk of overheating is low. The results have been summarised below:

Room Name	DSY1	DSY2	DSY3
GF:Conference	3.8	6.1	7
GF:Interview	2.3	5.4	8
GF:LRC	1.3	3.5	5
GF:Entrance	1.2	3.4	4.4
GF:SEN/Therapy	1.1	3.1	4.4
GF:LRC	2.1	4.5	6.2
GF:Med 1PO	0.6	2.8	2.9
GF:LRC	1.2	3.4	4.5
GF:Cent Stock (office)	0.9	2.8	3.5
GF:Food Prep	1.7	3.7	4.9
GF:Med 2PO	1.8	4	4.6
GF:Multi Mat Prep	0.5	2.3	1.8
GF:Ext Practice	2.4	4.6	5.5
FF: Small 1PO	0.3	1.7	1.5
FF:Seminar Room	2.4	4.9	6.1
FF:Med 2PO	0.2	1.4	1.1
FF:LRC 01	0.8	2.2	2.8
FF:Small Group	1.4	3.2	4.3
SF:Med 1PO	1.2	4	5.2
SF:SENco Office	1.2	3.8	5
SF:Med 1PO	1.1	3.8	4.3
SF:LRC	0.9	2.9	2
FF:Lrg 3PO	0.5	1.8	2.3
GF:2 Person Office	0.8	2.6	2.8
GF:Music Practice 01	0.9	2.6	3.7
GF:Music Practice 02	1.5	3.4	4.4
GF:Music Practice 03	1.8	3.2	4.4
GF:Music Practice 04	1.5	3.2	4.1
GF:Music Practice 05	2.1	4.3	4.9
GF:3-4 Person Office	1.4	3.1	4.3
GF:Sixth Form Social	0.9	4.6	0.9
GF:Sixth Form Study Area	3.5	5.8	6.9
GF:General Office	1.1	2.9	4.1
GF:Prep Man	0.8	2.4	3.2
FF:LRC 02	0.7	2.6	3
FF:2 Person Office	0.8	2.6	3.4
FF:IT Tech Room	0.5	1.7	1.8
GF:Kitchen	1.2	3.2	3.3
GF:Drama Studio	2.3	4.6	5.4
SF:LRC	0.9	3	3.5
GF:Sports Hall	0	0.7	0.6
GF:Main Hall	0.6	2.8	2.9
SF:Sml 2PO	0.9	3.2	4.4
SF:Lrg Group	1.7	4.6	6.3
SF:Sml 2PO	0.9	3.2	4.6
SF:Med 1PO	0.5	2	3.4
GF:Activity Studio	0.5	1.7	1.5
GF:Dining	0	0.9	0
GF:Textiles	2.8	5.7	7.2
GF:Food Studio	1.7	4.1	5.5
GF:Electronics	2.1	5.7	7.5
GF:Graphics	3.4	5.8	6.7
GF:Resistant Material	2	4.4	5.8
GF:Music Classroom 02	2.3	4.6	6.1

Room Name	DSY1	DSY2	DSY3
GF:Music Classroom 01	2.4	4.4	6.1
GF:Classroom	2.3	4.4	6.1
FF:General Art Room	1.4	4.1	5.8
FF:Classroom 07	2.1	4.9	6.7
FF:Classroom 08	2.1	5	6.7
FF:Heads Office	0.9	3.8	4.6
FF:PA Office	1.5	4.6	6.4
FF:Meeting room	0.9	3.1	3.8
FF:LRC 03	0.8	3.3	4.8
FF:Classroom 11	2.4	5.5	6.9
FF:Classroom 10	2	4.7	5.8
FF:Classroom 13	1.7	4.6	5.8
FF:Classroom 12	2	4.6	5.8
FF:Classroom 14	2	4.6	5.8
FF:Classroom 15	1.7	4.3	5.8
FF:Classroom 17	1.8	4.4	5.5
FF:Classroom 18	1.8	4.6	5.7
FF:LRC	0.7	2.5	2.8
FF:Classroom 16	1.5	3.8	5.5
FF:Classroom 01	1.5	4.1	5.7
FF:Classroom 02	1.5	4	5.7
FF:Classroom 03	1.5	4	5.5
FF:Classroom 04	1.5	3.8	5.7
FF:Classroom 05	1.5	3.8	5.5
FF:Classroom 06	1.5	3.8	5.5
FF:General Art Room	1.2	3.4	4.3
SF:General Science Lab 06	1.7	4.6	5.7
SF:General Science Lab 07	2.1	5.7	6.4
FF:Staff Room	1.4	3.5	4.7
SF:General Science Lab 08	2	4.7	6
SF:Classroom 01	2.3	5.2	6.3
SF:Classroom 02	2.3	5.2	6.3
SF:Classroom 14	2	4.6	6
SF:Classroom 09	1.4	3.7	5.2
SF:General Science Lab 01	2	4.9	7
SF:General Science Lab 02	1.7	4.6	6.4
SF:General Science Lab 03	1.5	4	5.8
SF:General Science Lab 04	1.5	4	5.8
SF:General Science Lab 05	1.5	4	5.8
SF:Classroom 05	1.5	4.1	5.7
SF:Classroom 06	1.5	3.8	5.5
SF:Classroom 07	1.5	4.1	5.7
SF:Classroom 08	1.2	3.5	4.3
SF:Classroom 13	1.2	3.2	4.4
SF:Classroom 11	1.7	4.3	5.4
SF:Science Prep	0.8	2.9	5
SF:Classroom 10	1.8	4.6	6
SF:Classroom 04	1.8	4.6	6
SF:Classroom 12	1.8	4.4	6
SF:LRC	0.5	2	3.3
SF:LRC	0.8	2.5	3.7
SF:Seminar Room	3.1	6	7.3
FF:ICT/Business Studies	3.4	5.8	6.9
FF:ICT/Business Studies	3.2	5.5	6.7

Two of the three scenarios show the building is not overheating, whereas the results from DSY3, show that a few rooms pose an overheating risk in a prolonged period of sustained warmth extreme scenario. As two of the three sets of results show compliance with TM52 criteria, it has been deemed that the building is of acceptable risk of overheating. The rooms shown as failing the DSY3 analysis will be monitored. Should they overheat in reality; additional ventilation shall be used.

Only the criterion 1 results are shown above. The full set of results are included in Appendices C2, C3 and C4.

### 3.0 Energy Strategy

This section of the report describes how the project has been designed in line with the London Plan hierarchy for CO<sub>2</sub> emission reduction.

### 3.1 Energy Hierarchy

Couch Perry Wilkes design philosophy for reducing energy consumption, implemented on the Turing House School, is demonstrated in the image below and is aligned with the London Plan Hierarchy, OS and CIBSE guidelines:



Figure 3.1 – Proposed environmental strategy for typical classroom – Turing House School

The subsequent sections describe how the proposed design aligns with the Energy Hierarchy.

### 3.2 'Be Lean' - Energy Demand Reductions

The project energy strategy is to maximise a fabric first energy strategy whereby the construction budget is focussed on reducing energy consumption and using it efficiency and not in expensive renewable energy technologies.

The proposed Thermal Efficiency of each construction element on average is approximately 30% better than the Part L minimum: -

Construction	Part L 2013 Minimum	Turing House School [W/(m <sup>2</sup> K)]
External Wall	0.35	0.21
Floor	0.25	0.21
Roof	0.25	0.16
Glazing	2.2	1.35 (G-value: 0.37)

Air Tightness	10m <sup>3</sup> /m <sup>2</sup> /hr @ 50Pa	5m <sup>3</sup> /m <sup>2</sup> /hr @ 50Pa
---------------	---	--

The glazing G-value is as shown in the above table for Windows facing South, East and West. The G value for North facing glazing is higher at 0.57 as direct solar gains are minimal from the North. The U-Value for the skylights in the model have also been set at 1.5 W/(m<sup>2</sup>.K).

The weather file/scenario used to simulate the climate in all Part L compliance simulations in the Dynamic Simulation Modelling software was LondonTRY05.


The table below shows some of the other 'Be Lean' measures incorporated within the design: -

Design Measure	'Be Lean' Benefits
Building Geometry	Multi storey building reduces exposed surface area to internal volume, reducing heat loss and improving efficiency.
Reduce cold and hot water consumption	By utilising water efficient fittings, the amount of energy consumed for water consumption is much reduced
Maximise Useful Daylight	As described in the lighting section (4.1.4) Climate Based Daylight Modelling has been utilised to ensure the building has optimum useful daylight levels that in combination with daylight-dimming lighting controls, helps eliminate the need for artificial lighting energy consumption.
Heat recovery ventilation	As discussed, the ventilation system utilises heat recovery ventilation as part of a mixed-mode ventilation strategy that is deployed to maximise energy efficiency
On-demand control	The room by room ventilation controls ensure that energy efficiency is maximised in every space where the amount of air delivered is variable to suit the space
Zoned building services	The Building shall incorporate zones to ensure energy is not wasted elsewhere in the facility when certain zones are used out-of-hours for community use.
Automatic monitoring of all energy sub-metering	Out of range alarms shall be triggered when the energy consumption of the building exceeds the typical consumption levels to highlight to the facilities staff that excessive energy use has occurred
Efficient gas condensing boilers	The boiler plant is highly efficient ensuring that energy is not wasted in the heat generation process
Variable speed pumping	Variable speed pumping on all secondary circuits (see heating schematic) reduces energy consumption associated with distribution significantly
Weather compensation on LTHW	As the external temperature rises and conditions become mild, the boiler flow temperature will reduce to ensure heat is not wasted



### 3.2.1 Resultant CO<sub>2</sub> Reductions from 'Be Lean' Measures

The proposed Fabric First strategy stated in section 2.2 results in significant reductions in the projects CO<sub>2</sub> emissions. The image below shows the BRUKL output of the design stage Part L compliance model for the Turing House School development. The Full 'Be Lean' BRUKL can be found in Appendix A1.

**BRUKL Output Document**  HM Government  
 Compliance with England Building Regulations Part L 2013

Project name  

**Turing House School**
As designed

Date: Wed Jan 30 12:19:47 2019

**Administrative information**

**Building Details**  
 Address: Hospital Bridge Road, Twickenham, TW2 8LH  
  
**Certification tool**  
 Calculation engine: Apache  
 Calculation engine version: 7.0.10  
 Interface to calculation engine: IES Virtual Environment  
 Interface to calculation engine version: 7.0.10  
 BRUKL compliance check version: v5.4.b.0

**Owner Details**  
 Name:  
 Telephone number:  
 Address: , ,  
  
**Certifier details**  
 Name:  
 Telephone number:  
 Address: , ,

**Criterion 1: The calculated CO<sub>2</sub> emission rate for the building must not exceed the target**

CO <sub>2</sub> emission rate from the notional building, kgCO <sub>2</sub> /m <sup>2</sup> .annum	13
Target CO <sub>2</sub> emission rate (TER), kgCO <sub>2</sub> /m <sup>2</sup> .annum	13
Building CO <sub>2</sub> emission rate (BER), kgCO <sub>2</sub> /m <sup>2</sup> .annum	12
Are emissions from the building less than or equal to the target?	BER <= TER
Are as built details the same as used in the BER calculations?	Separate submission

Figure 3.2 - BRUKL Report for Building Excluding PV and other Carbon Reductions

### 3.2.2 Energy Demand Following 'Be Lean' Measures

As required by the latest Greater London Authority guidance on preparing energy assessments, the estimated energy demand for the proposed building is reported in the below table:

Building Use	Energy Demand Following Energy Efficiency Measures (MWh/year)						
	Space Heating	Hot Water	Lighting	Auxiliary	Cooling	Unregulated Electricity	Unregulated Gas
Non-Residential Total	292.041	111.557	117.460	109.087	21.935	163.505	117.117

The above energy demands have been estimated using a 'Developed Energy' model that has been developed since this Energy Statement was originally developed. The unregulated gas has been estimated based on a catering demand of 0.65kWh/meal.

It should be noted that the above are initial estimations only and may differ significantly in the actual building dependant on the final detailed design proposals and actual building usage.

### 3.3 'Be Clean' - Heating Infrastructure

#### 3.3.1 Existing District Heating Infrastructure

The image below shows the proposed site on the London Heat Map (<http://www.londonheatmap.org.uk/>). As can be seen in the image below there is no existing district heating network in the immediate vicinity of the site.

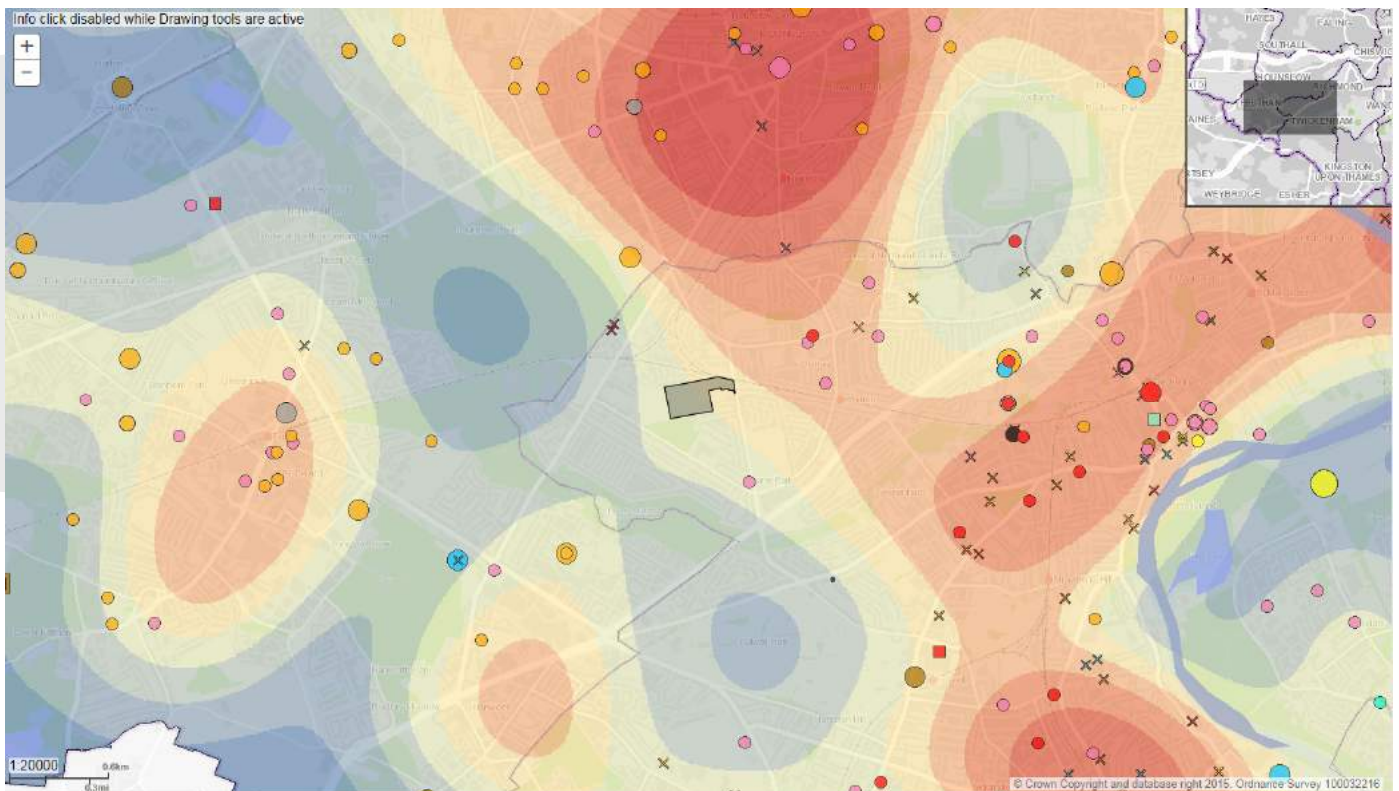


Figure 3.3 - London Heat Map – Turing House School, Hospital Bridge Road, Twickenham.

There is not currently a district heating network in close proximity to the site and it does not lie within an area defined as having potential high heat demand, as indicated by the contours. The coloured circles, squares and crosses, indicate potential anchor heat loads that could connect to a district heating network. The location of the site does not appear to be in a strategic location for linking anchor heat loads, but the facility shall be required to allow for the future connection.

### 3.3.2 Provisions for Future Connection to District Heating Network

The proposals for the Turing House School include the provision for the future connection of a local district heating network to the main LTHW header pipework as depicted in the image below taken from the project heating schematic: -

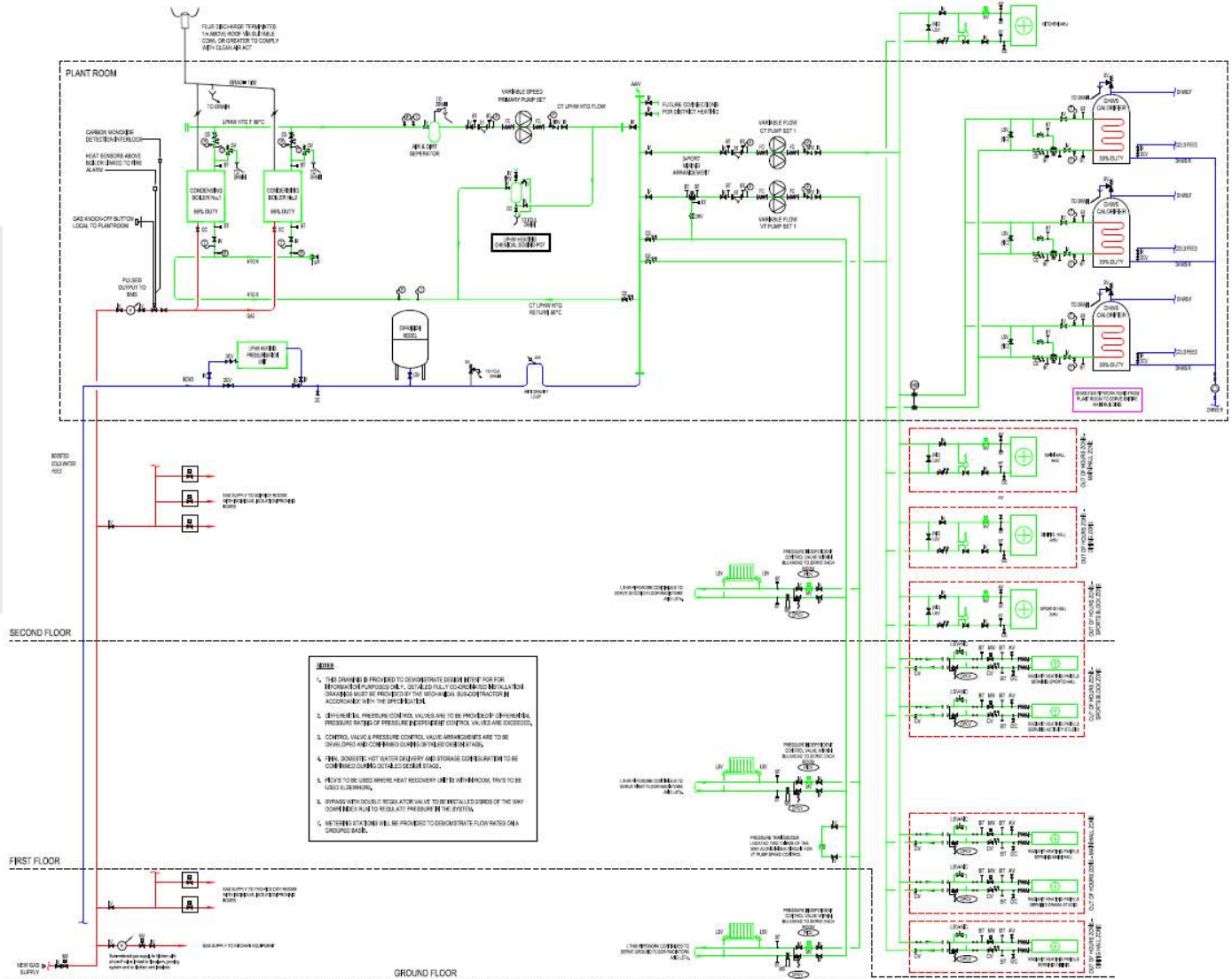


Figure 3.4 - Proposed Energy Centre Schematic – Turing House School

### 3.3.3 Site Wide Heat Network

The proposal for the Turing House School consists of a single super block building with a sports block attached to one side. Aligned with the Order of Preference of the London Plan, the proposal is to include a common heating system thus creating a site-wide heating network. The proposed external mechanical services are shown in Figure 3.5 below where the gas pipework connection is shown to enter at a single point to distribute to the central plantroom (where the centralised boiler plant is located at second floor level). Please refer to Appendix D1 and D2 for the Indicative Plant Room layouts.



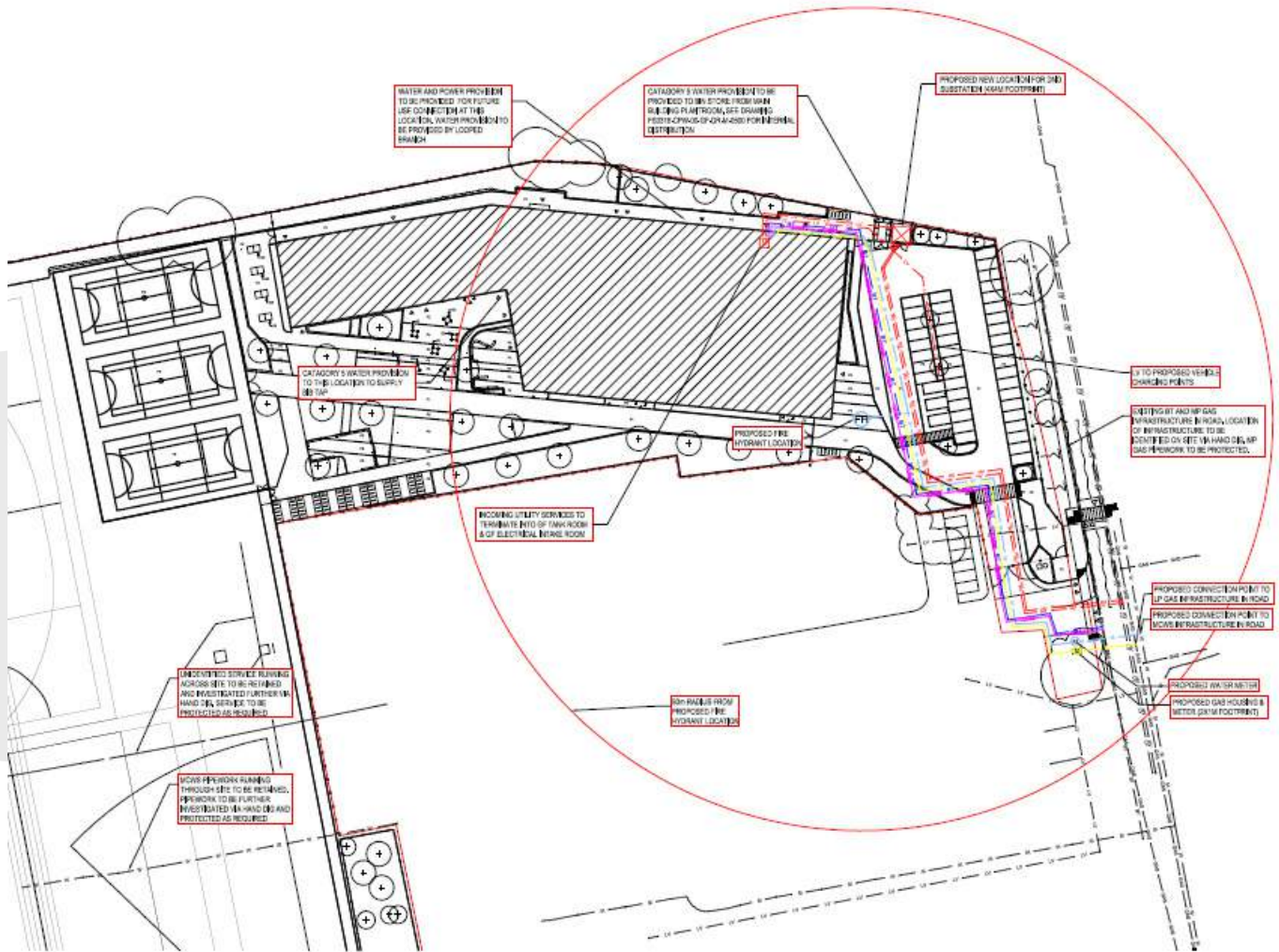


Figure 3.5 – External Services plan showing Site Wide Heat Network – Turing House School

The site wide heat network has the additional benefit of creating a single point of connection for any future connections to the existing heat network (as the single building on the site is served by a single system).

### 3.3.4 Onsite Combined Heat and Power (CHP) Feasibility

The proposed non-domestic Academic development will have a heat profile that will be significantly less than the 5,000 hours per annum stated as the threshold for consideration within the 'GLA guidance on preparing energy assessments' (clause 10.25).

Therefore, onsite CHP is not considered viable in this case.



## 3.4 'Be Green' – Renewable Technology

### 3.4.1 Photovoltaic Panels (PV)

It is proposed to utilise Photovoltaic panels to further reduce the CO<sub>2</sub> emissions from the fabric first approach. After the 'Be Lean' measures, a 3.55 kgCO<sub>2</sub>/m<sup>2</sup>.annum reduction through photovoltaic panels is required to produce a 27.31 % "Be Green" reduction. Together with the 7.69 % reduction from the "Be Lean" measures provide a 35% decrease in CO<sub>2</sub> emissions against the Notional Building (Target Emissions Rate). **When the carbon reductions required has been calculated in relation to the 'Be Lean' measures along with the further carbon savings discussed in Appendix B1 the 35% total reduction in CO<sub>2</sub> emissions over the Notional building is surpassed and a 55.47% reduction is met.**

The image below shows the BRUKL output of the design stage Part L compliance model for the Turing House School development with a PV array that meets the carbon reduction target discussed above. The below image does not include the domestic hot water savings or active cooling displaced. The following BRUKL report shows a BER difference of 3.5 kgCO<sub>2</sub>/m<sup>2</sup> in comparison to the 'Be Lean' BRUKL shown in Appendix A1. The full 'Be Green' BRUKL can be found in Appendix A2.

**BRUKL Output Document** HM Government  
 Compliance with England Building Regulations Part L 2013

Project name  

**Turing House School**
As designed

Date: Tue Mar 05 10:35:52 2019

**Administrative information**

**Building Details**  
 Address: Hospital Bridge Road, Twickenham, TW2 8LH

**Certification tool**  
 Calculation engine: Apache  
 Calculation engine version: 7.0.10  
 Interface to calculation engine: IES Virtual Environment  
 Interface to calculation engine version: 7.0.10  
 BRUKL compliance check version: v5.4.b.0

**Owner Details**  
 Name:  
 Telephone number:  
 Address: , ,

**Certifier details**  
 Name:  
 Telephone number:  
 Address: , ,

**Criterion 1: The calculated CO<sub>2</sub> emission rate for the building must not exceed the target**

CO <sub>2</sub> emission rate from the notional building, kgCO <sub>2</sub> /m <sup>2</sup> .annum	13
Target CO <sub>2</sub> emission rate (TER), kgCO <sub>2</sub> /m <sup>2</sup> .annum	13
Building CO <sub>2</sub> emission rate (BER), kgCO <sub>2</sub> /m <sup>2</sup> .annum	8.5
Are emissions from the building less than or equal to the target?	BER =< TER
Are as built details the same as used in the BER calculations?	Separate submission

Figure 3.6 - BRUKL Report for Building Including PV and Excluding Other Carbon Reductions

Based on the required carbon offset from renewables to achieve the 35% reduction below the TER, an early stage quotation has been obtained to determine the required array size and to utilise the available roof space in the most cost-effective way possible to meet the 35% carbon reduction target. As described above, a  $3.55\text{kgCO}_2/\text{m}^2\cdot\text{annum}$  reduction is required, based on the 'Be Lean' BRUKL, which equates to a total annual required carbon offset of  $29.72\text{kgCO}_2/\text{annum}$  from renewable technology. The early stage quotation attained provides the carbon offset required with an active PV area of  $290\text{m}^2$  and output of  $55.05\text{kWp}$ .

The below image shows the indicative PV array layout on the usable portion of the upper roof that is angled towards the south orientation.

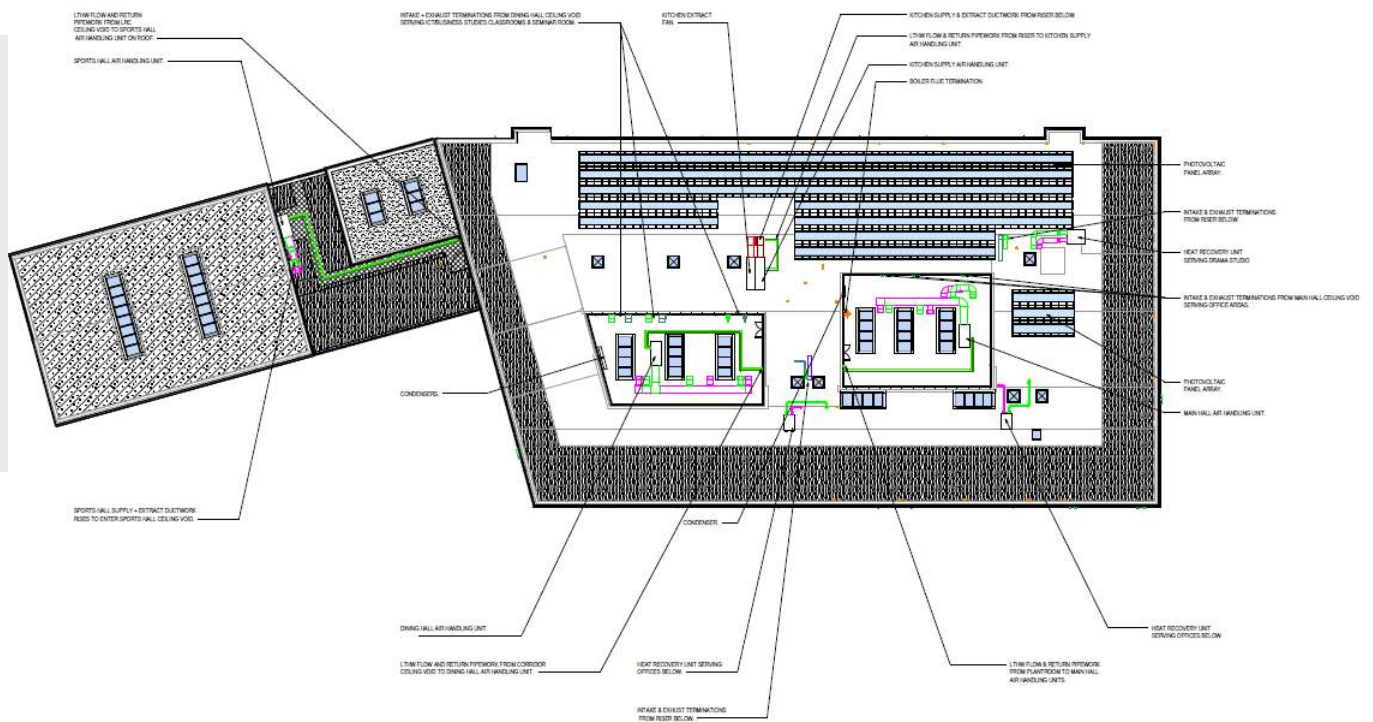


Figure 3.7 – Indicative Roof Layout including Roof Level plant and Photovoltaic Panel Arrays – Turing House School

## 4.0 Conclusions

The project has been designed in line with the London Plan Energy Hierarchy with a focus on a fabric-first energy strategy. The fabric first energy strategy has ensured that the construction budget has been invested in reducing the energy consumption for the building, rather than focussing on expensive renewable energy technologies. This ensures that the building is inherently energy efficient and is robust to increases in energy costs in the future.

The project has also been designed to meet the ESFA's new OS that provides a significantly better internal environment than previous education projects that complied with the Building Bulletins. It is widely accepted and proven through Government studies that the internal environment has a large influence on the performance of its occupants. Subsequently the design solution increases occupant comfort and provides a facility that will enable the staff and pupils of Turing House School to perform above the standards expected from a building that complies with the traditional Building Bulletins.

The fabric first design philosophy adopted helps to achieve a reduction of CO<sub>2</sub> emissions by 7.69 % as measured by the initial Part L assessment. This, together with the proposed PV provides a 35% reduction, with PVs providing a further 27.31 % reduction beyond the "Be Lean" measures.

Around 27% CO<sub>2</sub> reduction is achieved from the inclusion of onsite renewable technologies in the form of photovoltaic panels.

Energy Efficiency Measure	CO <sub>2</sub> Emission Savings	% CO <sub>2</sub> reduction for building
'Be Lean' - Fabric First Approach (BRUKL)	8.371 TonnesCO <sub>2</sub> /year	7.69%
'Be Green' - Photovoltaic Panels	29.718 TonnesCO <sub>2</sub> /year	27.31%
<b>Initial Total CO<sub>2</sub> Emission Reduction</b>	<b>38.090 TonnesCO<sub>2</sub>/year</b>	<b>35%</b>

There is no existing district heating network in the vicinity of the site, however the provision has been made to allow for future connection to a district heating network. A single site wide heating system has been incorporated to serve the proposed building. This has the additional benefit of creating a single point of connection for the site should a district heating network become available in the area. It also enables the school to incorporate an alternative heat generation fuel source in the future that will benefit the site.

The project avoids the need for active cooling systems favouring passive design solutions as described within section 2 of this report and Appendix B that meet the overheating requirements of TM52. By avoiding active cooling systems, the project's anticipated CO<sub>2</sub> emissions are reduced by a further 10.77 % that would be emitted from traditional educational buildings with active cooling. The domestic hot water consumption for the project is reduced in several ways including water efficient showers and flow restrictors on wash hand basin taps; this reduction in hot water demand further reduces the projects CO<sub>2</sub> emissions by 9.70 %. Including the further carbon saving measures, the proposed design features reduce the overall CO<sub>2</sub> emissions by approximately 55.47% when compared with the notional building from the Part L calculation, totalling a saving in excess of 60.3TonnesCO<sub>2</sub>/annum Please refer to Appendix B for summarised tables and graphs showing the full extent of carbon savings for the building.

## APPENDIX A1 – ‘BE LEAN’ BRUKL CALCULATION

The image below shows the output from the design stage Part L assessment before applying photovoltaic panels and further carbon saving measures: -

**BRUKL Output Document**
HM Government
**Compliance with England Building Regulations Part L 2013**

**Project name**

<b>Turing House School</b>	<b>As designed</b>
----------------------------	--------------------

**Date:** Wed Jan 30 12:19:47 2019

**Administrative information**

**Building Details**  
 Address: Hospital Bridge Road, Twickenham, TW2 6LH

**Certification tool**  
 Calculation engine: Apache  
 Calculation engine version: 7.0.10  
 Interface to calculation engine: IES Virtual Environment  
 Interface to calculation engine version: 7.0.10  
 BRUKL compliance check version: v5.4.b.0

**Owner Details**  
 Name:  
 Telephone number:  
 Address: , ,

**Certifier details**  
 Name:  
 Telephone number:  
 Address: , ,

**Criterion 1: The calculated CO<sub>2</sub> emission rate for the building must not exceed the target**

CO <sub>2</sub> emission rate from the notional building, kgCO <sub>2</sub> /m <sup>2</sup> .annum	13
Target CO <sub>2</sub> emission rate (TER), kgCO <sub>2</sub> /m <sup>2</sup> .annum	13
Building CO <sub>2</sub> emission rate (BER), kgCO <sub>2</sub> /m <sup>2</sup> .annum	12
Are emissions from the building less than or equal to the target?	BER ≤ TER
Are as built details the same as used in the BER calculations?	Separate submission

**Criterion 2: The performance of the building fabric and fixed building services should achieve reasonable overall standards of energy efficiency**

Values which do not achieve the standards in the Non-Domestic Building Services Compliance Guide and Part L are displayed in red.

**Building fabric**

Element	U <sub>a-limit</sub>	U <sub>a-calc</sub>	U <sub>i-calc</sub>	Surface where the maximum value occurs*
Wall**	0.35	0.21	0.26	FF000009:Surf[0]
Floor	0.25	0.21	0.21	GF000000:Surf[0]
Roof	0.25	0.16	0.16	FF000032:Surf[0]
Windows***, roof windows, and rooflights	2.2	1.33	1.35	GF000006:Surf[1]
Personnel doors	2.2	-	-	No Personnel doors in building
Vehicle access & similar large doors	1.5	-	-	No Vehicle access doors in building
High usage entrance doors	3.5	-	-	No High usage entrance doors in building

U<sub>a-limit</sub> = Limiting area-weighted average U-values [W/(m<sup>2</sup>K)]  
 U<sub>a-calc</sub> = Calculated area-weighted average U-values [W/(m<sup>2</sup>K)]  
 U<sub>i-calc</sub> = Calculated maximum individual element U-values [W/(m<sup>2</sup>K)]

\* There might be more than one surface where the maximum U-value occurs.  
 \*\* Automatic U-value check by the tool does not apply to curtain walls whose limiting standard is similar to that for windows.  
 \*\*\* Display windows and similar glazing are excluded from the U-value check.  
 N.B.: Neither roof ventilators (inc. smoke vents) nor swimming pool basins are modelled or checked against the limiting standards by the tool.

<b>Air Permeability</b>	<b>Worst acceptable standard</b>	<b>This building</b>
m <sup>3</sup> /(h.m <sup>2</sup> ) at 50 Pa	10	5



### Building services

The standard values listed below are minimum values for efficiencies and maximum values for SFPs. Refer to the Non-Domestic Building Services Compliance Guide for details.

Whole building lighting automatic monitoring & targeting with alarms for out-of-range values	YES
Whole building electric power factor achieved by power factor correction	>0.95

#### 1- Radiator Heating Hybrid Vent Offices (local units)

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	0.96	-	0.2	0	0.8
Standard value	0.91*	N/A	N/A	N/A	0.5
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system					YES
* Standard shown is for gas single boiler systems <=2 MW output. For single boiler systems >2 MW or multi-boiler systems, (overall) limiting efficiency is 0.86. For any individual boiler in a multi-boiler system, limiting efficiency is 0.82.					

#### 2- Radiator Heating Dirty Extract

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	0.96	-	0.2	0	-
Standard value	0.91*	N/A	N/A	N/A	N/A
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system					YES
* Standard shown is for gas single boiler systems <=2 MW output. For single boiler systems >2 MW or multi-boiler systems, (overall) limiting efficiency is 0.86. For any individual boiler in a multi-boiler system, limiting efficiency is 0.82.					

#### 3- Radiator Heating Natural Vent

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	0.96	-	0.2	0	-
Standard value	0.91*	N/A	N/A	N/A	N/A
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system					YES
* Standard shown is for gas single boiler systems <=2 MW output. For single boiler systems >2 MW or multi-boiler systems, (overall) limiting efficiency is 0.86. For any individual boiler in a multi-boiler system, limiting efficiency is 0.82.					

#### 4- Radiator Heating Hybrid Vent Vent (local units)

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	0.96	-	0.2	0	0.8
Standard value	0.91*	N/A	N/A	N/A	0.5
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system					YES
* Standard shown is for gas single boiler systems <=2 MW output. For single boiler systems >2 MW or multi-boiler systems, (overall) limiting efficiency is 0.86. For any individual boiler in a multi-boiler system, limiting efficiency is 0.82.					

#### 5- Server Room Cooling

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	3.5	3.3	-	0	-
Standard value	2.5*	3.2	N/A	N/A	N/A
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system					YES
* Standard shown is for all types >12 kW output, except absorption and gas engine heat pumps. For types <=12 kW output, refer to EN 14825 for limiting standards.					

#### 6- Radiator Heating and DX cooling and Hybrid Vent Vent (local units)

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	0.96	3.3	0	0	0.8
Standard value	0.91*	3.2	N/A	N/A	0.5
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system					YES
* Standard shown is for gas single boiler systems <=2 MW output. For single boiler systems >2 MW or multi-boiler systems, (overall) limiting efficiency is 0.86. For any individual boiler in a multi-boiler system, limiting efficiency is 0.82.					

7- Radiant Heating Hybrid Vent Vent (local units)

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	0.96	-	0.2	0	0.8
Standard value	0.86	N/A	0.55	N/A	0.5
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system					YES

1- DHW (central gas fired)

	Water heating efficiency	Storage loss factor [kWh/litre per day]
This building	0.96	-
Standard value	0.8	N/A

Local mechanical ventilation, exhaust, and terminal units

ID	System type in Non-domestic Building Services Compliance Guide
A	Local supply or extract ventilation units serving a single area
B	Zonal supply system where the fan is remote from the zone
C	Zonal extract system where the fan is remote from the zone
D	Zonal supply and extract ventilation units serving a single room or zone with heating and heat recovery
E	Local supply and extract ventilation system serving a single area with heating and heat recovery
F	Other local ventilation units
G	Fan-assisted terminal VAV unit
H	Fan coil units
I	Zonal extract system where the fan is remote from the zone with grease filter

Zone name	SFP [W/(l/s)]										HR efficiency	
ID of system type	A	B	C	D	E	F	G	H	I		Zone	Standard
Standard value	0.3	1.1	0.5	1.9	1.6	0.5	1.1	0.5	1			
GF:Conference	-	-	-	1.4	-	-	-	-	-	-	-	N/A
GF:AWC	0.5	-	-	-	-	-	-	-	-	-	-	N/A
GF:Interview	-	-	-	1.4	-	-	-	-	-	-	-	N/A
GF:LRC	-	-	-	1.4	-	-	-	-	-	-	-	N/A
GF:Entrance	-	-	-	1.4	-	-	-	-	-	-	-	N/A
GF:SEN/Therapy	-	-	-	1.4	-	-	-	-	-	-	-	N/A
GF:LRC	-	-	-	1.4	-	-	-	-	-	-	-	N/A
GF:Med 1PO	-	-	-	1.4	-	-	-	-	-	-	-	N/A
GF:Staff WC	0.5	-	-	-	-	-	-	-	-	-	-	N/A
GF:LRC	-	-	-	1.4	-	-	-	-	-	-	-	N/A
GF:AWC	0.5	-	-	-	-	-	-	-	-	-	-	N/A
GF:CL St	0.5	-	-	-	-	-	-	-	-	-	-	N/A
GF:Cent Stock (office)	-	-	-	1.4	-	-	-	-	-	-	-	N/A
GF:Food Prep	-	-	-	1.4	-	-	-	-	-	-	-	N/A
GF:Med 2PO	-	-	-	1.4	-	-	-	-	-	-	-	N/A
GF:Multi Mat Prep	-	-	-	1.4	-	-	-	-	-	-	-	N/A
GF:Ext Practice	-	-	-	1.4	-	-	-	-	-	-	-	N/A
FF:ICT/Business Studies	-	-	-	1.4	-	-	-	-	-	-	-	N/A
FF:Sml 1PO	-	-	-	1.4	-	-	-	-	-	-	-	N/A
FF:Seminar Room	-	-	-	1.4	-	-	-	-	-	-	-	N/A
FF:2 Person Office	-	-	-	1.4	-	-	-	-	-	-	-	N/A
FF:Server	-	-	0.5	-	-	-	-	-	-	-	-	N/A

Zone name	SFP [W/(l/s)]										HR efficiency	
ID of system type	A	B	C	D	E	F	G	H	I			
Standard value	0.3	1.1	0.5	1.9	1.6	0.5	1.1	0.5	1		Zone	Standard
FF:LRC 01	-	-	-	1.4	-	-	-	-	-	-	-	N/A
FF:Small Grp	-	-	-	1.4	-	-	-	-	-	-	-	N/A
FF:AWC	0.5	-	-	-	-	-	-	-	-	-	-	N/A
FF:Cl St	0.5	-	-	-	-	-	-	-	-	-	-	N/A
FF:CL St	0.5	-	-	-	-	-	-	-	-	-	-	N/A
SF:Med 1PO	-	-	-	1.4	-	-	-	-	-	-	-	N/A
SF:SENco	-	-	-	1.4	-	-	-	-	-	-	-	N/A
SF:Med 1PO	-	-	-	1.4	-	-	-	-	-	-	-	N/A
SF:Staff WC	0.5	-	-	-	-	-	-	-	-	-	-	N/A
SF:LRC	-	-	-	1.4	-	-	-	-	-	-	-	N/A
FF:3 Person Office	-	-	-	1.4	-	-	-	-	-	-	-	N/A
GF:Staff Change	0.5	-	-	-	-	-	-	-	-	-	-	N/A
GF:Hygiene	0.5	-	-	-	-	-	-	-	-	-	-	N/A
GF:MEd 2PO	-	-	-	1.4	-	-	-	-	-	-	-	N/A
GF:Other Pupil WC	0.5	-	-	-	-	-	-	-	-	-	-	N/A
GF:Staff Change	0.5	-	-	-	-	-	-	-	-	-	-	N/A
GF:Music Practice 01	-	-	-	1.4	-	-	-	-	-	-	-	N/A
GF:Music Practice 02	-	-	-	1.4	-	-	-	-	-	-	-	N/A
GF:Music Practice 03	-	-	-	1.4	-	-	-	-	-	-	-	N/A
GF:Music Practice 04	-	-	-	1.4	-	-	-	-	-	-	-	N/A
GF:Music Practice 05	-	-	-	1.4	-	-	-	-	-	-	-	N/A
GF:3-4 Person Office	-	-	-	1.4	-	-	-	-	-	-	-	N/A
GF:Sixth Form Social	-	-	-	1.6	-	-	-	-	-	-	-	N/A
GF:Sixth Form Study Area	-	-	-	1.2	-	-	-	-	-	-	-	N/A
GF:General Office	-	-	-	1.4	-	-	-	-	-	-	-	N/A
GF:Prep Man	-	-	-	1.4	-	-	-	-	-	-	-	N/A
GF:Indl WC	0.5	-	-	-	-	-	-	-	-	-	-	N/A
FF:LRC 02	-	-	-	1.4	-	-	-	-	-	-	-	N/A
FF:ICT/Business Studies	-	-	-	1.4	-	-	-	-	-	-	-	N/A
FF:2 Person Office	-	-	-	1.4	-	-	-	-	-	-	-	N/A
FF:ICT Tech	-	-	-	1.4	-	-	-	-	-	-	-	N/A
FF:Indl WC	0.5	-	-	-	-	-	-	-	-	-	-	N/A
SF:CL St	0.5	-	-	-	-	-	-	-	-	-	-	N/A
SF:AWC	0.5	-	-	-	-	-	-	-	-	-	-	N/A
GF:Pupil WC	0.5	-	-	-	-	-	-	-	-	-	-	N/A
GF:Pupil WC	0.5	-	-	-	-	-	-	-	-	-	-	N/A
GF:Pupil WC	0.5	-	-	-	-	-	-	-	-	-	-	N/A
GF:Pupil WC	0.5	-	-	-	-	-	-	-	-	-	-	N/A
GF:Pupil WC	0.5	-	-	-	-	-	-	-	-	-	-	N/A
FF:Pupil WC	0.5	-	-	-	-	-	-	-	-	-	-	N/A
FF:Pupil WC	0.5	-	-	-	-	-	-	-	-	-	-	N/A
FF:Pupil WC	0.5	-	-	-	-	-	-	-	-	-	-	N/A
FF:Pupil WC	0.5	-	-	-	-	-	-	-	-	-	-	N/A

Zone name	SFP [W/(l/s)]									HR efficiency	
ID of system type	A	B	C	D	E	F	G	H	I	Zone	Standard
Standard value	0.3	1.1	0.5	1.9	1.6	0.5	1.1	0.5	1		
SF:Pupil WC	0.5	-	-	-	-	-	-	-	-	-	N/A
SF:Pupil WC	0.5	-	-	-	-	-	-	-	-	-	N/A
GF:Drama Studio	-	-	-	1.6	-	-	-	-	-	-	N/A
SF:LRC	-	-	-	1.4	-	-	-	-	-	-	N/A
GF:Sports Hall	-	-	-	1.6	-	-	-	-	-	-	N/A
GF:Main Hall	-	-	-	1.6	-	-	-	-	-	-	N/A
SF:2 Person Office	-	-	-	1.4	-	-	-	-	-	-	N/A
SF:Lrg Grp Rm	-	-	-	1.4	-	-	-	-	-	-	N/A
SF:2 Person Office	-	-	-	1.4	-	-	-	-	-	-	N/A
SF:Med 1PO	-	-	-	1.4	-	-	-	-	-	-	N/A
GF:Activity Studio	-	-	-	1.6	-	-	-	-	-	-	N/A
GF:Textiles	-	-	-	1.2	-	-	-	-	-	-	N/A
GF:Food Studio	-	-	-	1.2	-	-	-	-	-	-	N/A
GF:Electronics	-	-	-	1.2	-	-	-	-	-	-	N/A
GF:Graphics	-	-	-	1.2	-	-	-	-	-	-	N/A
GF:Resistant Material	-	-	-	1.2	-	-	-	-	-	-	N/A
GF:Music Classroom 02	-	-	-	1.2	-	-	-	-	-	-	N/A
GF:Music Classroom 01	-	-	-	1.2	-	-	-	-	-	-	N/A
GF:Classroom	-	-	-	1.2	-	-	-	-	-	-	N/A
FF:General Art Room	-	-	-	1.2	-	-	-	-	-	-	N/A
FF:Classroom 07	-	-	-	1.2	-	-	-	-	-	-	N/A
FF:Classroom 08	-	-	-	1.2	-	-	-	-	-	-	N/A
FF:Heads Office	-	-	-	1.4	-	-	-	-	-	-	N/A
FF:PA Office	-	-	-	1.4	-	-	-	-	-	-	N/A
FF:Meeting Room	-	-	-	1.4	-	-	-	-	-	-	N/A
FF:LRC 03	-	-	-	1.4	-	-	-	-	-	-	N/A
FF:Classroom 11	-	-	-	1.2	-	-	-	-	-	-	N/A
FF:Classroom 10	-	-	-	1.2	-	-	-	-	-	-	N/A
FF:Classroom 13	-	-	-	1.2	-	-	-	-	-	-	N/A
FF:Classroom 12	-	-	-	1.2	-	-	-	-	-	-	N/A
FF:Classroom 14	-	-	-	1.2	-	-	-	-	-	-	N/A
FF:Classroom 15	-	-	-	1.2	-	-	-	-	-	-	N/A
FF:Classroom 17	-	-	-	1.2	-	-	-	-	-	-	N/A
FF:Classroom 18	-	-	-	1.2	-	-	-	-	-	-	N/A
FF:LRC	-	-	-	1.4	-	-	-	-	-	-	N/A
FF:Classroom 16	-	-	-	1.2	-	-	-	-	-	-	N/A
FF:Classroom 01	-	-	-	1.2	-	-	-	-	-	-	N/A
FF:Classroom 02	-	-	-	1.2	-	-	-	-	-	-	N/A
FF:Classroom 03	-	-	-	1.2	-	-	-	-	-	-	N/A
FF:Classroom 04	-	-	-	1.2	-	-	-	-	-	-	N/A
FF:Classroom 05	-	-	-	1.2	-	-	-	-	-	-	N/A
FF:Classroom 06	-	-	-	1.2	-	-	-	-	-	-	N/A
FF:General Art Room	-	-	-	1.2	-	-	-	-	-	-	N/A



Zone name	SFP [W/(l/s)]										HR efficiency	
	ID of system type	A	B	C	D	E	F	G	H	I	Zone	Standard
	Standard value	0.3	1.1	0.5	1.9	1.6	0.5	1.1	0.5	1		
SF:General Science Lab 06		-	-	-	1.2	-	-	-	-	-	-	N/A
SF:General Science Lab 07		-	-	-	1.2	-	-	-	-	-	-	N/A
FF:Staff Room		-	-	-	1.4	-	-	-	-	-	-	N/A
SF:General Science Lab 08		-	-	-	1.2	-	-	-	-	-	-	N/A
SF:Classroom 01		-	-	-	1.2	-	-	-	-	-	-	N/A
SF:Classroom 02		-	-	-	1.2	-	-	-	-	-	-	N/A
SF:Classroom 14		-	-	-	1.2	-	-	-	-	-	-	N/A
SF:Classroom 09		-	-	-	1.2	-	-	-	-	-	-	N/A
SF:General Science Lab 01		-	-	-	1.2	-	-	-	-	-	-	N/A
SF:General Science Lab 02		-	-	-	1.2	-	-	-	-	-	-	N/A
SF:General Science Lab 03		-	-	-	1.2	-	-	-	-	-	-	N/A
SF:General Science Lab 04		-	-	-	1.2	-	-	-	-	-	-	N/A
SF:General Science Lab 05		-	-	-	1.2	-	-	-	-	-	-	N/A
SF:Classroom 05		-	-	-	1.2	-	-	-	-	-	-	N/A
SF:Classroom 06		-	-	-	1.2	-	-	-	-	-	-	N/A
SF:Classroom 07		-	-	-	1.2	-	-	-	-	-	-	N/A
SF:Classroom 08		-	-	-	1.2	-	-	-	-	-	-	N/A
SF:Classroom 13		-	-	-	1.2	-	-	-	-	-	-	N/A
SF:Classroom 11		-	-	-	1.2	-	-	-	-	-	-	N/A
SF:Science Prep		-	-	-	1.4	-	-	-	-	-	-	N/A
SF:Classroom 10		-	-	-	1.2	-	-	-	-	-	-	N/A
SF:Classroom 04		-	-	-	1.2	-	-	-	-	-	-	N/A
SF:Classroom 12		-	-	-	1.2	-	-	-	-	-	-	N/A
SF:LRC		-	-	-	1.4	-	-	-	-	-	-	N/A
SF:LRC		-	-	-	1.4	-	-	-	-	-	-	N/A
GF:Pupil Change Showers		-	-	-	1.4	-	-	-	-	-	-	N/A
GF:Pupil change		-	-	-	1.4	-	-	-	-	-	-	N/A
GF:Pupil Change Showers		-	-	-	1.4	-	-	-	-	-	-	N/A
GF:Pupil Change		-	-	-	1.4	-	-	-	-	-	-	N/A
SF:Seminar Room		-	-	-	1.2	-	-	-	-	-	-	N/A
GF:Dining		-	-	-	1.6	-	-	-	-	-	-	N/A
GF:Dining		-	-	-	1.6	-	-	-	-	-	-	N/A

General lighting and display lighting		Luminous efficacy [lm/W]			General lighting [W]
Zone name		Luminaire	Lamp	Display lamp	
	Standard value	60	60	22	
GF:Conference		48	-	-	166
GF:AWC		-	202	-	21
GF:Interview		79	-	-	35
GF:LRC		56	-	-	71
GF:Circulation 08		-	126	-	77
GF:Cent Stock		90	-	-	36
GF:Circulation		-	103	-	104

General lighting and display lighting		Luminous efficacy [lm/W]			General lighting [W]
Zone name		Luminaire	Lamp	Display lamp	
	Standard value	60	60	22	
GF:Entrance		71	-	-	51
GF:SEN/Therapy		60	-	-	78
GF:LRC		70	-	-	52
GF:Med 1PO		72	-	-	48
GF:DT St		110	-	-	30
GF:Dt St		110	-	-	30
GF:Circulation 07		-	99	-	130
GF:Plant		52	-	-	126
GF:Plant		71	-	-	57
GF:DT St		92	-	-	33
GF:Staff WC		-	201	-	20
GF:IT St		94	-	-	30
GF:Drama St		67	-	-	67
GF:App		86	-	-	41
GF:It St		88	-	-	34
GF:It St		92	-	-	30
GF:Cent Stock		85	-	-	36
GF:LRC		49	-	-	137
GF:Chair St		52	-	-	127
GF:DT St		88	-	-	39
GF:AWC		-	208	-	20
GF:CL St		120	-	-	5
GF:Exam St		115	-	-	24
GF:Cent Stock (office)		79	-	-	38
GF:Food Prep		66	-	-	53
GF:DT St		66	-	-	61
GF:Circulation 09		-	115	-	91
GF:Circulation 10		-	104	-	100
GF:Med 2PO		54	-	-	96
GF:Multi Mat Prep		47	-	-	180
GF:Music St		90	-	-	33
GF:Ext Practice		56	-	-	79
FF:Art St		86	-	-	34
FF:Circulation 07		-	99	-	130
FF:Kiln Room		98	-	-	27
FF:Art St		120	-	-	16
FF:Art St		120	-	-	16
FF:Circulation 8		-	99	-	132
FF:Circulation 05		-	99	-	133
FF:ICT/Business Studies		43	-	-	287
FF:Sml 1PO		68	-	-	48
FF:Art St		94	-	-	31
FF:Seminar Room		47	-	-	158

General lighting and display lighting		Luminous efficacy [lm/W]			General lighting [W]
Zone name		Luminaire	Lamp	Display lamp	
	Standard value	60	60	22	
FF:SEN St		85	-	-	35
FF:2 Person Office		69	-	-	50
FF:Server		58	-	-	84
FF:LRC 01		49	-	-	135
FF:Small Grp		59	-	-	62
FF:AWC		-	220	-	18
FF:CI St		120	-	-	7
FF:CL St		120	-	-	5
FF:Circulation 06		-	99	-	130
SF:Circulation 01		-	99	-	132
SF:Circulation 02		-	99	-	133
SF:Med 1PO		69	-	-	49
SF:SENco		63	-	-	60
SF:Med 1PO		69	-	-	49
SF:Exam St		74	-	-	50
SF:Chemical St		73	-	-	48
SF:Staff WC		-	220	-	18
SF:LRC		47	-	-	156
SF:Circulation		-	99	-	130
SF:Circulation 03		-	99	-	130
FF:IT St		92	-	-	31
FF:3 Person Office		60	-	-	75
GF:PE St		45	-	-	317
GF:PE St Act		70	-	-	75
GF:Hub		66	-	-	59
GF:Circulation 05		-	99	-	130
GF:Staff Change		-	162	-	29
GF:Ext PE St		71	-	-	50
GF:Circulation		-	106	-	93
GF:Hygiene		-	120	-	58
GF:MEd 2PO		69	-	-	47
GF:Other Pupil WC		-	241	-	15
GF:Staff Change		-	164	-	28
GF:Music Practice 01		70	-	-	41
GF:Music Practice 02		71	-	-	39
GF:Music St		90	-	-	34
GF:Music Practice 03		70	-	-	40
GF:Music Practice 04		72	-	-	37
GF:Music Practice 05		71	-	-	38
GF:Circulation 02		-	125	-	126
GF:3-4 Person Office		57	-	-	89
GF:Exam St		120	-	-	27
GF:Sixth Form Social		-	83	-	585

General lighting and display lighting		Luminous efficacy [lm/W]			General lighting [W]
Zone name	Standard value	Luminaire	Lamp	Display lamp	
		60	60	22	
GF:Sixth Form Study Area	41	-	-	-	637
GF:Circulation	-	-	95	-	167
GF:General Office	44	-	-	-	336
GF:Prep Man	52	-	-	-	108
GF:Indl WC	-	-	203	-	23
FF:LRC 02	51	-	-	-	146
FF:Circulation 03	-	-	107	-	434
FF:ICT/Business Studies	43	-	-	-	300
FF:2 Person Office	72	-	-	-	57
FF:ICT Tech	59	-	-	-	87
FF:Indl WC	-	-	203	-	23
SF:CL St	120	-	-	-	18
SF:AWC	-	-	170	-	27
SF:Plant	45	-	-	-	276
SF:Circulation 05	-	-	105	-	501
SF:Circulation 02	-	-	107	-	409
SF:Circulation 03	-	-	114	-	185
FF:Circulation 01	-	-	112	-	309
GF:Pupil WC	-	-	107	-	87
GF:Pupil WC	-	-	123	-	72
GF:Pupil WC	-	-	123	-	73
GF:Pupil WC	-	-	123	-	68
GF:Circulation 03	-	-	108	-	420
GF:Pupil WC	-	-	123	-	72
GF:Circulation 04	-	-	99	-	556
FF:Pupil WC	-	-	123	-	72
FF:Pupil WC	-	-	123	-	72
FF:Pupil WC	-	-	123	-	73
FF:Pupil WC	-	-	123	-	72
SF:Pupil WC	-	-	123	-	72
SF:Circulation 01	-	-	111	-	483
SF:Pupil WC	-	-	123	-	72
GF:Circulation 06	-	-	103	-	116
GF:Kitchen	-	-	82	-	893
GF:Drama Studio	50	-	-	-	639
GF:Circulation 01	-	-	113	-	311
SF:LRC	49	-	-	-	135
GF:Sports Hall	-	-	84	-	3284
GF:Main Hall	45	-	-	-	1461
SF:2 Person Office	66	-	-	-	54
SF:Lrg Grp Rm	59	-	-	-	66
SF:2 Person Office	67	-	-	-	53
SF:Med 1PO	67	-	-	-	53



General lighting and display lighting		Luminous efficacy [lm/W]			General lighting [W]
Zone name	Standard value	Luminaire	Lamp	Display lamp	
SF:Circulation 04	-	60	92	22	318
GF:Comm St	114	-	-	-	29
GF:Activity Studio	48	-	-	-	804
GF:Textiles	42	-	-	-	669
GF:Food Studio	41	-	-	-	811
GF:Electronics	42	-	-	-	660
GF:Graphics	42	-	-	-	658
GF:Resistant Material	41	-	-	-	764
GF:Music Classroom 02	43	-	-	-	295
GF:Music Classroom 01	43	-	-	-	288
GF:Classroom	43	-	-	-	255
FF:General Art Room	42	-	-	-	391
FF:Classroom 07	43	-	-	-	257
FF:Classroom 08	43	-	-	-	261
FF:Heads Office	56	-	-	-	83
FF:PA Office	74	-	-	-	41
FF:Meeting Room	54	-	-	-	94
FF:Circulation 04	-	-	93	-	569
FF:LRC 03	43	-	-	-	262
FF:Classroom 11	43	-	-	-	267
FF:Classroom 10	43	-	-	-	262
FF:Classroom 13	43	-	-	-	263
FF:Classroom 12	43	-	-	-	266
FF:Classroom 14	43	-	-	-	262
FF:Classroom 15	43	-	-	-	263
FF:Classroom 17	43	-	-	-	259
FF:Classroom 18	43	-	-	-	261
FF:Circulation	-	-	106	-	710
FF:LRC	48	-	-	-	141
FF:Classroom 16	43	-	-	-	255
FF:Classroom 01	43	-	-	-	256
FF:Classroom 02	43	-	-	-	257
FF:Classroom 03	43	-	-	-	258
FF:Classroom 04	43	-	-	-	257
FF:Classroom 05	43	-	-	-	257
FF:Classroom 06	43	-	-	-	258
FF:General Art Room	42	-	-	-	391
SF:General Science Lab 06	1	-	-	-	670
SF:General Science Lab 07	1	-	-	-	678
FF:Staff Room	43	-	-	-	318
SF:General Science Lab 08	1	-	-	-	665
SF:Classroom 01	43	-	-	-	266
SF:Classroom 02	43	-	-	-	262

General lighting and display lighting		Luminous efficacy [lm/W]			General lighting [W]
Zone name	Standard value	Luminaire	Lamp	Display lamp	
SF:Classroom 14	43	-	-	-	263
SF:Classroom 09	43	-	-	-	261
SF:General Science Lab 01	1	-	-	-	654
SF:General Science Lab 02	1	-	-	-	653
SF:General Science Lab 03	1	-	-	-	680
SF:General Science Lab 04	1	-	-	-	662
SF:General Science Lab 05	1	-	-	-	655
SF:Classroom 05	43	-	-	-	259
SF:Classroom 06	43	-	-	-	266
SF:Classroom 07	43	-	-	-	256
SF:Classroom 08	43	-	-	-	255
SF:Classroom 13	47	-	-	-	259
SF:Classroom 11	43	-	-	-	261
SF:Science Prep	42	-	-	-	495
SF:Classroom 10	43	-	-	-	273
SF:Classroom 04	43	-	-	-	270
SF:Classroom 12	43	-	-	-	272
SF:LRC	51	-	-	-	132
SF:LRC	47	-	-	-	162
GF:Pupil Change Showers	-	152	-	-	37
GF:Pupil change	49	-	-	-	148
GF:Pupil Change Showers	-	107	-	-	101
GF:Pupil Change	50	-	-	-	237
SF:Seminar Room	47	-	-	-	167
GF:Dining	-	88	-	-	299
GF:Dining	-	88	-	-	1835

**Criterion 3: The spaces in the building should have appropriate passive control measures to limit solar gains**

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
GF:Conference	NO (-19.7%)	NO
GF:Interview	NO (-47.9%)	NO
GF:LRC	N/A	N/A
GF:Entrance	N/A	N/A
GF:SEN/Therapy	N/A	N/A
GF:LRC	N/A	N/A
GF:Med 1PO	NO (-71.5%)	NO
GF:LRC	N/A	N/A
GF:Cent Stock (office)	N/A	N/A
GF:Food Prep	N/A	N/A
GF:Med 2PO	N/A	N/A
GF:Multi Mat Prep	N/A	N/A
GF:Ext Practice	N/A	N/A
FF:ICT/Business Studies	N/A	N/A

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
FF:Sml 1PO	N/A	N/A
FF:Seminar Room	N/A	N/A
FF:2 Person Office	N/A	N/A
FF:Server	N/A	N/A
FF:LRC 01	N/A	N/A
FF:Small Grp	N/A	N/A
SF:Med 1PO	NO (-22.5%)	NO
SF:SENco	NO (-36.2%)	NO
SF:Med 1PO	NO (-22.8%)	NO
SF:LRC	NO (-19.6%)	NO
FF:3 Person Office	N/A	N/A
GF:MEd 2PO	N/A	N/A
GF:Music Practice 01	N/A	N/A
GF:Music Practice 02	N/A	N/A
GF:Music Practice 03	N/A	N/A
GF:Music Practice 04	N/A	N/A
GF:Music Practice 05	N/A	N/A
GF:3-4 Person Office	N/A	N/A
GF:Sixth Form Social	NO (-9.1%)	NO
GF:Sixth Form Study Area	NO (-11.1%)	NO
GF:General Office	NO (-75.2%)	NO
GF:Prep Man	N/A	N/A
FF:LRC 02	NO (-51.3%)	NO
FF:ICT/Business Studies	N/A	N/A
FF:2 Person Office	N/A	N/A
FF:ICT Tech	N/A	N/A
GF:Drama Studio	N/A	N/A
SF:LRC	NO (-50.3%)	NO
GF:Sports Hall	NO (-73.7%)	NO
GF:Main Hall	NO (-28.7%)	NO
SF:2 Person Office	NO (-66.1%)	NO
SF:Lrg Grp Rm	NO (-79%)	NO
SF:2 Person Office	NO (-79%)	NO
SF:Med 1PO	NO (-64.7%)	NO
GF:Activity Studio	NO (-71.2%)	NO
GF:Textiles	NO (-37.3%)	NO
GF:Food Studio	NO (-48.3%)	NO
GF:Electronics	NO (-29.3%)	NO
GF:Graphics	NO (-31.4%)	NO
GF:Resistant Material	NO (-24.8%)	NO
GF:Music Classroom 02	NO (-11.6%)	NO
GF:Music Classroom 01	NO (-32.7%)	NO
GF:Classroom	NO (-34%)	NO
FF:General Art Room	NO (-37.8%)	NO
FF:Classroom 07	NO (-22.2%)	NO
FF:Classroom 08	NO (-23.3%)	NO
FF:Heads Office	NO (-58.5%)	NO
FF:PA Office	NO (-16.9%)	NO
FF:Meeting Room	NO (-56%)	NO

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
FF:LRC 03	NO (-23.7%)	NO
FF:Classroom 11	NO (-32.6%)	NO
FF:Classroom 10	NO (-31.4%)	NO
FF:Classroom 13	NO (-31.7%)	NO
FF:Classroom 12	NO (-32.2%)	NO
FF:Classroom 14	NO (-31.4%)	NO
FF:Classroom 15	NO (-31.6%)	NO
FF:Classroom 17	NO (-27%)	NO
FF:Classroom 18	NO (-27.3%)	NO
FF:LRC	NO (-25%)	NO
FF:Classroom 16	NO (-34%)	NO
FF:Classroom 01	NO (-24.3%)	NO
FF:Classroom 02	NO (-24.6%)	NO
FF:Classroom 03	NO (-24.8%)	NO
FF:Classroom 04	NO (-24.5%)	NO
FF:Classroom 05	NO (-24.7%)	NO
FF:Classroom 06	NO (-24.7%)	NO
FF:General Art Room	NO (-36.1%)	NO
SF:General Science Lab 06	NO (-53.4%)	NO
SF:General Science Lab 07	NO (-38.2%)	NO
FF:Staff Room	NO (-56.8%)	NO
SF:General Science Lab 08	NO (-36.9%)	NO
SF:Classroom 01	NO (-32.2%)	NO
SF:Classroom 02	NO (-31.4%)	NO
SF:Classroom 14	NO (-31.6%)	NO
SF:Classroom 09	NO (-54.7%)	NO
SF:General Science Lab 01	NO (-35.1%)	NO
SF:General Science Lab 02	NO (-59%)	NO
SF:General Science Lab 03	NO (-33.5%)	NO
SF:General Science Lab 04	NO (-31.7%)	NO
SF:General Science Lab 05	NO (-31%)	NO
SF:Classroom 05	NO (-25.2%)	NO
SF:Classroom 06	NO (-27.2%)	NO
SF:Classroom 07	NO (-24.3%)	NO
SF:Classroom 08	NO (-67%)	NO
SF:Classroom 13	NO (-77.1%)	NO
SF:Classroom 11	NO (-27.3%)	NO
SF:Science Prep	NO (-9.2%)	NO
SF:Classroom 10	NO (-21.3%)	NO
SF:Classroom 04	NO (-17%)	NO
SF:Classroom 12	NO (-1.4%)	NO
SF:LRC	NO (-65.2%)	NO
SF:LRC	NO (-38.1%)	NO
SF:Seminar Room	NO (-9.9%)	NO
GF:Dining	NO (-0.9%)	NO
GF:Dining	NO (-55.5%)	NO



**Criterion 4: The performance of the building, as built, should be consistent with the calculated BER**

Separate submission

**Criterion 5: The necessary provisions for enabling energy-efficient operation of the building should be in place**

Separate submission

**EPBD (Recast): Consideration of alternative energy systems**

Were alternative energy systems considered and analysed as part of the design process?	YES
Is evidence of such assessment available as a separate submission?	YES
Are any such measures included in the proposed design?	YES

## Technical Data Sheet (Actual vs. Notional Building)

### Building Global Parameters

	Actual	Notional
Area [m <sup>2</sup> ]	8339.2	8339.2
External area [m <sup>2</sup> ]	11186.9	11186.9
Weather	LON	LON
Infiltration [m <sup>3</sup> /hm <sup>2</sup> @ 50Pa]	5	3
Average conductance [W/K]	3526.91	4027.32
Average U-value [W/m <sup>2</sup> K]	0.32	0.36
Alpha value* [%]	10.12	10

\* Percentage of the building's average heat transfer coefficient which is due to thermal bridging

### Building Use

% Area	Building Type
	A1/A2 Retail/Financial and Professional services
	A3/A4/A5 Restaurants and Cafes/Drinking Est./Takeaways
	B1 Offices and Workshop businesses
	B2 to B7 General Industrial and Special Industrial Groups
	B8 Storage or Distribution
	C1 Hotels
	C2 Residential Institutions: Hospitals and Care Homes
	C2 Residential Institutions: Residential schools
	C2 Residential Institutions: Universities and colleges
	C2A Secure Residential Institutions
	Residential spaces
	D1 Non-residential Institutions: Community/Day Centre
	D1 Non-residential Institutions: Libraries, Museums, and Galleries
100	<b>D1 Non-residential Institutions: Education</b>
	D1 Non-residential Institutions: Primary Health Care Building
	D1 Non-residential Institutions: Crown and County Courts
	D2 General Assembly and Leisure, Night Clubs, and Theatres
	Others: Passenger terminals
	Others: Emergency services
	Others: Miscellaneous 24hr activities
	Others: Car Parks 24 hrs
	Others: Stand alone utility block

### Energy Consumption by End Use [kWh/m<sup>2</sup>]

	Actual	Notional
Heating	6.04	6.84
Cooling	0.02	0.01
Auxiliary	4.8	3.23
Lighting	6.67	12.84
Hot water	22.57	15.54
Equipment*	19.54	19.54
TOTAL**	40.11	38.46

\* Energy used by equipment does not count towards the total for consumption or calculating emissions.

\*\* Total is net of any electrical energy displaced by CHP generators, if applicable.

### Energy Production by Technology [kWh/m<sup>2</sup>]

	Actual	Notional
Photovoltaic systems	0	0
Wind turbines	0	0
CHP generators	0	0
Solar thermal systems	0	0

### Energy & CO<sub>2</sub> Emissions Summary

	Actual	Notional
Heating + cooling demand [MJ/m <sup>2</sup> ]	19.32	21.36
Primary energy* [kWh/m <sup>2</sup> ]	69.3	75.44
Total emissions [kg/m <sup>2</sup> ]	12	13

\* Primary energy is net of any electrical energy displaced by CHP generators, if applicable.

HVAC Systems Performance									
System Type	Heat dem MJ/m2	Cool dem MJ/m2	Heat con kWh/m2	Cool con kWh/m2	Aux con kWh/m2	Heat SSEFF	Cool SSEER	Heat gen SEFF	Cool gen SEER
[ST] Central heating using water: radiators, [HS] LTHW boiler, [HFT] Natural Gas, [CFT] Electricity									
Actual	14.2	0	4.4	0	6.1	0.9	0	0.96	0
Notional	0	0	0	0	0	0	0	----	----
[ST] Central heating using water: radiators, [HS] LTHW boiler, [HFT] Natural Gas, [CFT] Electricity									
Actual	6.4	0	2	0	13.9	0.9	0	0.96	0
Notional	15.2	0	4.9	0	4.4	0.86	0	----	----
[ST] Split or multi-split system, [HS] LTHW boiler, [HFT] Natural Gas, [CFT] Electricity									
Actual	23.3	147.3	7.2	16.6	2.1	0.9	2.47	0.96	3.3
Notional	4.6	0	1.5	0	10.7	0.86	0	----	----
[ST] Central heating using water: radiators, [HS] LTHW boiler, [HFT] Natural Gas, [CFT] Electricity									
Actual	21	0	6.5	0	1.8	0.9	0	0.96	0
Notional	20.8	92.1	6.7	6.8	1.3	0.86	3.79	----	----
[ST] Single room cooling system, [HS] Heat pump (electric): air source, [HFT] Electricity, [CFT] Electricity									
Actual	0	0	0	0	0	3.43	2.47	3.5	3.3
Notional	22.2	0	7.1	0	1.1	0.86	0	----	----
[ST] Flued radiant heater, [HS] Unitary radiant heater, [HFT] Natural Gas, [CFT] Electricity									
Actual	27.3	0	9.4	0	3.5	0.81	0	0.96	0
Notional	0	0	0	0	0	2.56	3.79	----	----
[ST] Central heating using water: radiators, [HS] LTHW boiler, [HFT] Natural Gas, [CFT] Electricity									
Actual	29.5	0	9.1	0	5.1	0.9	0	0.96	0
Notional	36.5	0	11.8	0	2	0.86	0	----	----
[ST] No Heating or Cooling									
Actual	0	0	0	0	0	0	0	0	0
Notional	29.7	0	9.6	0	3.2	0.86	0	----	----

#### Key to terms

Heat dem [MJ/m2]	= Heating energy demand
Cool dem [MJ/m2]	= Cooling energy demand
Heat con [kWh/m2]	= Heating energy consumption
Cool con [kWh/m2]	= Cooling energy consumption
Aux con [kWh/m2]	= Auxiliary energy consumption
Heat SSEFF	= Heating system seasonal efficiency (for notional building, value depends on activity glazing class)
Cool SSEER	= Cooling system seasonal energy efficiency ratio
Heat gen SSEFF	= Heating generator seasonal efficiency
Cool gen SSEER	= Cooling generator seasonal energy efficiency ratio
ST	= System type
HS	= Heat source
HFT	= Heating fuel type
CFT	= Cooling fuel type

## Key Features

The Building Control Body is advised to give particular attention to items whose specifications are better than typically expected.

### Building fabric

Element	U <sub>i-Typ</sub>	U <sub>i-Min</sub>	Surface where the minimum value occurs*
Wall	0.23	0.21	GF000000:Surf[11]
Floor	0.2	0.21	GF000000:Surf[0]
Roof	0.15	0.16	FF000043:Surf[0]
Windows, roof windows, and rooflights	1.5	1.2	GF00003E:Surf[17]
Personnel doors	1.5	-	No Personnel doors in building
Vehicle access & similar large doors	1.5	-	No Vehicle access doors in building
High usage entrance doors	1.5	-	No High usage entrance doors in building
U <sub>i-Typ</sub> = Typical individual element U-values [W/(m²K)]			U <sub>i-Min</sub> = Minimum individual element U-values [W/(m²K)]
* There might be more than one surface where the minimum U-value occurs.			

Air Permeability	Typical value	This building
m³/(h.m²) at 50 Pa	5	5



## APPENDIX A2 - 'BE GREEN' BRUKL CALCULATION

The image below shows the output from the design stage Part L assessment with enough photovoltaic panels to meet the carbon saving required to meet the London Plan 35% reduction below the TER: -

**BRUKL Output Document** **HM Government**  
**Compliance with England Building Regulations Part L 2013**

Project name  

**Turing House School**
**As designed**

Date: Tue Mar 05 10:35:52 2019

**Administrative information**

**Building Details**  
 Address: Hospital Bridge Road, Twickenham, TW2 6LH

**Certification tool**  
 Calculation engine: Apache  
 Calculation engine version: 7.0.10  
 Interface to calculation engine: IES Virtual Environment  
 Interface to calculation engine version: 7.0.10  
 BRUKL compliance check version: v5.4.b.0

**Owner Details**  
 Name:  
 Telephone number:  
 Address: . .

**Certifier details**  
 Name:  
 Telephone number:  
 Address: . .

**Criterion 1: The calculated CO<sub>2</sub> emission rate for the building must not exceed the target**

CO <sub>2</sub> emission rate from the notional building, kgCO <sub>2</sub> /m <sup>2</sup> .annum	13
Target CO <sub>2</sub> emission rate (TER), kgCO <sub>2</sub> /m <sup>2</sup> .annum	13
Building CO <sub>2</sub> emission rate (BER), kgCO <sub>2</sub> /m <sup>2</sup> .annum	8.5
Are emissions from the building less than or equal to the target?	BER =< TER
Are as built details the same as used in the BER calculations?	Separate submission

**Criterion 2: The performance of the building fabric and fixed building services should achieve reasonable overall standards of energy efficiency**

Values which do not achieve the standards in the Non-Domestic Building Services Compliance Guide and Part L are displayed in red.

Building fabric

Element	U <sub>s-Limit</sub>	U <sub>s-Calc</sub>	U <sub>i-Calc</sub>	Surface where the maximum value occurs*
Wall**	0.35	0.21	0.26	FF000009:Surf[0]
Floor	0.25	0.21	0.21	GF000000:Surf[0]
Roof	0.25	0.16	0.16	FF000032:Surf[0]
Windows***, roof windows, and rooflights	2.2	1.33	1.35	GF000006:Surf[1]
Personnel doors	2.2	-	-	No Personnel doors in building
Vehicle access & similar large doors	1.5	-	-	No Vehicle access doors in building
High usage entrance doors	3.5	-	-	No High usage entrance doors in building

U<sub>s-Limit</sub> = Limiting area-weighted average U-values [W/(m<sup>2</sup>K)]  
 U<sub>s-Calc</sub> = Calculated area-weighted average U-values [W/(m<sup>2</sup>K)]  
 U<sub>i-Calc</sub> = Calculated maximum individual element U-values [W/(m<sup>2</sup>K)]  
 \* There might be more than one surface where the maximum U-value occurs.  
 \*\* Automatic U-value check by the tool does not apply to curtain walls whose limiting standard is similar to that for windows.  
 \*\*\* Display windows and similar glazing are excluded from the U-value check.  
 N.B.: Neither roof ventilators (inc. smoke vents) nor swimming pool basins are modelled or checked against the limiting standards by the tool.

<b>Air Permeability</b>	<b>Worst acceptable standard</b>	<b>This building</b>
m <sup>3</sup> /(h.m <sup>2</sup> ) at 50 Pa	10	5

#### Building services

The standard values listed below are minimum values for efficiencies and maximum values for SFPs. Refer to the Non-Domestic Building Services Compliance Guide for details.

Whole building lighting automatic monitoring & targeting with alarms for out-of-range values	YES
Whole building electric power factor achieved by power factor correction	>0.95

#### 1- Radiator Heating Hybrid Vent Offices (local units)

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	0.96	-	0.2	0	0.8
Standard value	0.91*	N/A	N/A	N/A	0.5
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system					YES
* Standard shown is for gas single boiler systems <=2 MW output. For single boiler systems >2 MW or multi-boiler systems, (overall) limiting efficiency is 0.86. For any individual boiler in a multi-boiler system, limiting efficiency is 0.82.					

#### 2- Radiator Heating Dirty Extract

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	0.96	-	0.2	0	-
Standard value	0.91*	N/A	N/A	N/A	N/A
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system					YES
* Standard shown is for gas single boiler systems <=2 MW output. For single boiler systems >2 MW or multi-boiler systems, (overall) limiting efficiency is 0.86. For any individual boiler in a multi-boiler system, limiting efficiency is 0.82.					

#### 3- Radiator Heating Natural Vent

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	0.96	-	0.2	0	-
Standard value	0.91*	N/A	N/A	N/A	N/A
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system					YES
* Standard shown is for gas single boiler systems <=2 MW output. For single boiler systems >2 MW or multi-boiler systems, (overall) limiting efficiency is 0.86. For any individual boiler in a multi-boiler system, limiting efficiency is 0.82.					

#### 4- Radiator Heating Hybrid Vent Vent (local units)

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	0.96	-	0.2	0	0.8
Standard value	0.91*	N/A	N/A	N/A	0.5
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system					YES
* Standard shown is for gas single boiler systems <=2 MW output. For single boiler systems >2 MW or multi-boiler systems, (overall) limiting efficiency is 0.86. For any individual boiler in a multi-boiler system, limiting efficiency is 0.82.					

#### 5- Server Room Cooling

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	3.5	3.3	-	0	-
Standard value	2.5*	3.2	N/A	N/A	N/A
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system					YES
* Standard shown is for all types >12 kW output, except absorption and gas engine heat pumps. For types <=12 kW output, refer to EN 14825 for limiting standards.					

#### 6- Radiator Heating and DX cooling and Hybrid Vent Vent (local units)

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	0.96	3.3	0	0	0.8
Standard value	0.91*	3.2	N/A	N/A	0.5
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system					YES
* Standard shown is for gas single boiler systems <=2 MW output. For single boiler systems >2 MW or multi-boiler systems, (overall) limiting efficiency is 0.86. For any individual boiler in a multi-boiler system, limiting efficiency is 0.82.					

7- Radiant Heating Hybrid Vent Vent (local units)

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	0.96	-	0.2	0	0.8
Standard value	0.86	N/A	0.55	N/A	0.5
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system					YES

1- DHW (central gas fired)

	Water heating efficiency	Storage loss factor [kWh/litre per day]
This building	0.96	-
Standard value	0.8	N/A

Local mechanical ventilation, exhaust, and terminal units

ID	System type in Non-domestic Building Services Compliance Guide
A	Local supply or extract ventilation units serving a single area
B	Zonal supply system where the fan is remote from the zone
C	Zonal extract system where the fan is remote from the zone
D	Zonal supply and extract ventilation units serving a single room or zone with heating and heat recovery
E	Local supply and extract ventilation system serving a single area with heating and heat recovery
F	Other local ventilation units
G	Fan-assisted terminal VAV unit
H	Fan coil units
I	Zonal extract system where the fan is remote from the zone with grease filter

Zone name	SFP [W/(l/s)]										HR efficiency	
ID of system type	A	B	C	D	E	F	G	H	I		Zone	Standard
Standard value	0.3	1.1	0.5	1.9	1.6	0.5	1.1	0.5	1			
GF:Conference	-	-	-	1.4	-	-	-	-	-	-	-	N/A
GF:AWC	0.5	-	-	-	-	-	-	-	-	-	-	N/A
GF:Interview	-	-	-	1.4	-	-	-	-	-	-	-	N/A
GF:LRC	-	-	-	1.4	-	-	-	-	-	-	-	N/A
GF:Entrance	-	-	-	1.4	-	-	-	-	-	-	-	N/A
GF:SEN/Therapy	-	-	-	1.4	-	-	-	-	-	-	-	N/A
GF:LRC	-	-	-	1.4	-	-	-	-	-	-	-	N/A
GF:Med 1PO	-	-	-	1.4	-	-	-	-	-	-	-	N/A
GF:Staff WC	0.5	-	-	-	-	-	-	-	-	-	-	N/A
GF:LRC	-	-	-	1.4	-	-	-	-	-	-	-	N/A
GF:AWC	0.5	-	-	-	-	-	-	-	-	-	-	N/A
GF:CL St	0.5	-	-	-	-	-	-	-	-	-	-	N/A
GF:Cent Stock (office)	-	-	-	1.4	-	-	-	-	-	-	-	N/A
GF:Food Prep	-	-	-	1.4	-	-	-	-	-	-	-	N/A
GF:Med 2PO	-	-	-	1.4	-	-	-	-	-	-	-	N/A
GF:Multi Mat Prep	-	-	-	1.4	-	-	-	-	-	-	-	N/A
GF:Ext Practice	-	-	-	1.4	-	-	-	-	-	-	-	N/A
FF:ICT/Business Studies	-	-	-	1.4	-	-	-	-	-	-	-	N/A
FF:Sml 1PO	-	-	-	1.4	-	-	-	-	-	-	-	N/A
FF:Seminar Room	-	-	-	1.4	-	-	-	-	-	-	-	N/A
FF:2 Person Office	-	-	-	1.4	-	-	-	-	-	-	-	N/A
FF:Server	-	-	0.5	-	-	-	-	-	-	-	-	N/A

Zone name	SFP [W/(l/s)]										HR efficiency	
ID of system type	A	B	C	D	E	F	G	H	I			
Standard value	0.3	1.1	0.5	1.9	1.6	0.5	1.1	0.5	1		Zone	Standard
FF:LRC 01	-	-	-	1.4	-	-	-	-	-	-	-	N/A
FF:Small Grp	-	-	-	1.4	-	-	-	-	-	-	-	N/A
FF:AWC	0.5	-	-	-	-	-	-	-	-	-	-	N/A
FF:Cl St	0.5	-	-	-	-	-	-	-	-	-	-	N/A
FF:CL St	0.5	-	-	-	-	-	-	-	-	-	-	N/A
SF:Med 1PO	-	-	-	1.4	-	-	-	-	-	-	-	N/A
SF:SENco	-	-	-	1.4	-	-	-	-	-	-	-	N/A
SF:Med 1PO	-	-	-	1.4	-	-	-	-	-	-	-	N/A
SF:Staff WC	0.5	-	-	-	-	-	-	-	-	-	-	N/A
SF:LRC	-	-	-	1.4	-	-	-	-	-	-	-	N/A
FF:3 Person Office	-	-	-	1.4	-	-	-	-	-	-	-	N/A
GF:Staff Change	0.5	-	-	-	-	-	-	-	-	-	-	N/A
GF:Hygiene	0.5	-	-	-	-	-	-	-	-	-	-	N/A
GF:MEd 2PO	-	-	-	1.4	-	-	-	-	-	-	-	N/A
GF:Other Pupil WC	0.5	-	-	-	-	-	-	-	-	-	-	N/A
GF:Staff Change	0.5	-	-	-	-	-	-	-	-	-	-	N/A
GF:Music Practice 01	-	-	-	1.4	-	-	-	-	-	-	-	N/A
GF:Music Practice 02	-	-	-	1.4	-	-	-	-	-	-	-	N/A
GF:Music Practice 03	-	-	-	1.4	-	-	-	-	-	-	-	N/A
GF:Music Practice 04	-	-	-	1.4	-	-	-	-	-	-	-	N/A
GF:Music Practice 05	-	-	-	1.4	-	-	-	-	-	-	-	N/A
GF:3-4 Person Office	-	-	-	1.4	-	-	-	-	-	-	-	N/A
GF:Sixth Form Social	-	-	-	1.6	-	-	-	-	-	-	-	N/A
GF:Sixth Form Study Area	-	-	-	1.2	-	-	-	-	-	-	-	N/A
GF:General Office	-	-	-	1.4	-	-	-	-	-	-	-	N/A
GF:Prep Man	-	-	-	1.4	-	-	-	-	-	-	-	N/A
GF:Indl WC	0.5	-	-	-	-	-	-	-	-	-	-	N/A
FF:LRC 02	-	-	-	1.4	-	-	-	-	-	-	-	N/A
FF:ICT/Business Studies	-	-	-	1.4	-	-	-	-	-	-	-	N/A
FF:2 Person Office	-	-	-	1.4	-	-	-	-	-	-	-	N/A
FF:ICT Tech	-	-	-	1.4	-	-	-	-	-	-	-	N/A
FF:Indl WC	0.5	-	-	-	-	-	-	-	-	-	-	N/A
SF:CL St	0.5	-	-	-	-	-	-	-	-	-	-	N/A
SF:AWC	0.5	-	-	-	-	-	-	-	-	-	-	N/A
GF:Pupil WC	0.5	-	-	-	-	-	-	-	-	-	-	N/A
GF:Pupil WC	0.5	-	-	-	-	-	-	-	-	-	-	N/A
GF:Pupil WC	0.5	-	-	-	-	-	-	-	-	-	-	N/A
GF:Pupil WC	0.5	-	-	-	-	-	-	-	-	-	-	N/A
GF:Pupil WC	0.5	-	-	-	-	-	-	-	-	-	-	N/A
FF:Pupil WC	0.5	-	-	-	-	-	-	-	-	-	-	N/A
FF:Pupil WC	0.5	-	-	-	-	-	-	-	-	-	-	N/A
FF:Pupil WC	0.5	-	-	-	-	-	-	-	-	-	-	N/A
FF:Pupil WC	0.5	-	-	-	-	-	-	-	-	-	-	N/A



Zone name	SFP [W/(l/s)]										HR efficiency	
ID of system type	A	B	C	D	E	F	G	H	I			
Standard value	0.3	1.1	0.5	1.9	1.6	0.5	1.1	0.5	1		Zone	Standard
SF:Pupil WC	0.5	-	-	-	-	-	-	-	-	-	-	N/A
SF:Pupil WC	0.5	-	-	-	-	-	-	-	-	-	-	N/A
GF:Drama Studio	-	-	-	1.6	-	-	-	-	-	-	-	N/A
SF:LRC	-	-	-	1.4	-	-	-	-	-	-	-	N/A
GF:Sports Hall	-	-	-	1.6	-	-	-	-	-	-	-	N/A
GF:Main Hall	-	-	-	1.6	-	-	-	-	-	-	-	N/A
SF:2 Person Office	-	-	-	1.4	-	-	-	-	-	-	-	N/A
SF:Lrg Grp Rm	-	-	-	1.4	-	-	-	-	-	-	-	N/A
SF:2 Person Office	-	-	-	1.4	-	-	-	-	-	-	-	N/A
SF:Med 1PO	-	-	-	1.4	-	-	-	-	-	-	-	N/A
GF:Activity Studio	-	-	-	1.6	-	-	-	-	-	-	-	N/A
GF:Textiles	-	-	-	1.2	-	-	-	-	-	-	-	N/A
GF:Food Studio	-	-	-	1.2	-	-	-	-	-	-	-	N/A
GF:Electronics	-	-	-	1.2	-	-	-	-	-	-	-	N/A
GF:Graphics	-	-	-	1.2	-	-	-	-	-	-	-	N/A
GF:Resistant Material	-	-	-	1.2	-	-	-	-	-	-	-	N/A
GF:Music Classroom 02	-	-	-	1.2	-	-	-	-	-	-	-	N/A
GF:Music Classroom 01	-	-	-	1.2	-	-	-	-	-	-	-	N/A
GF:Classroom	-	-	-	1.2	-	-	-	-	-	-	-	N/A
FF:General Art Room	-	-	-	1.2	-	-	-	-	-	-	-	N/A
FF:Classroom 07	-	-	-	1.2	-	-	-	-	-	-	-	N/A
FF:Classroom 08	-	-	-	1.2	-	-	-	-	-	-	-	N/A
FF:Heads Office	-	-	-	1.4	-	-	-	-	-	-	-	N/A
FF:PA Office	-	-	-	1.4	-	-	-	-	-	-	-	N/A
FF:Meeting Room	-	-	-	1.4	-	-	-	-	-	-	-	N/A
FF:LRC 03	-	-	-	1.4	-	-	-	-	-	-	-	N/A
FF:Classroom 11	-	-	-	1.2	-	-	-	-	-	-	-	N/A
FF:Classroom 10	-	-	-	1.2	-	-	-	-	-	-	-	N/A
FF:Classroom 13	-	-	-	1.2	-	-	-	-	-	-	-	N/A
FF:Classroom 12	-	-	-	1.2	-	-	-	-	-	-	-	N/A
FF:Classroom 14	-	-	-	1.2	-	-	-	-	-	-	-	N/A
FF:Classroom 15	-	-	-	1.2	-	-	-	-	-	-	-	N/A
FF:Classroom 17	-	-	-	1.2	-	-	-	-	-	-	-	N/A
FF:Classroom 18	-	-	-	1.2	-	-	-	-	-	-	-	N/A
FF:LRC	-	-	-	1.4	-	-	-	-	-	-	-	N/A
FF:Classroom 16	-	-	-	1.2	-	-	-	-	-	-	-	N/A
FF:Classroom 01	-	-	-	1.2	-	-	-	-	-	-	-	N/A
FF:Classroom 02	-	-	-	1.2	-	-	-	-	-	-	-	N/A
FF:Classroom 03	-	-	-	1.2	-	-	-	-	-	-	-	N/A
FF:Classroom 04	-	-	-	1.2	-	-	-	-	-	-	-	N/A
FF:Classroom 05	-	-	-	1.2	-	-	-	-	-	-	-	N/A
FF:Classroom 06	-	-	-	1.2	-	-	-	-	-	-	-	N/A
FF:General Art Room	-	-	-	1.2	-	-	-	-	-	-	-	N/A

Zone name	SFP [W/(l/s)]										HR efficiency	
ID of system type	A	B	C	D	E	F	G	H	I			
Standard value	0.3	1.1	0.5	1.9	1.6	0.5	1.1	0.5	1		Zone	Standard
SF:General Science Lab 06	-	-	-	1.2	-	-	-	-	-	-	-	N/A
SF:General Science Lab 07	-	-	-	1.2	-	-	-	-	-	-	-	N/A
FF:Staff Room	-	-	-	1.4	-	-	-	-	-	-	-	N/A
SF:General Science Lab 08	-	-	-	1.2	-	-	-	-	-	-	-	N/A
SF:Classroom 01	-	-	-	1.2	-	-	-	-	-	-	-	N/A
SF:Classroom 02	-	-	-	1.2	-	-	-	-	-	-	-	N/A
SF:Classroom 14	-	-	-	1.2	-	-	-	-	-	-	-	N/A
SF:Classroom 09	-	-	-	1.2	-	-	-	-	-	-	-	N/A
SF:General Science Lab 01	-	-	-	1.2	-	-	-	-	-	-	-	N/A
SF:General Science Lab 02	-	-	-	1.2	-	-	-	-	-	-	-	N/A
SF:General Science Lab 03	-	-	-	1.2	-	-	-	-	-	-	-	N/A
SF:General Science Lab 04	-	-	-	1.2	-	-	-	-	-	-	-	N/A
SF:General Science Lab 05	-	-	-	1.2	-	-	-	-	-	-	-	N/A
SF:Classroom 05	-	-	-	1.2	-	-	-	-	-	-	-	N/A
SF:Classroom 06	-	-	-	1.2	-	-	-	-	-	-	-	N/A
SF:Classroom 07	-	-	-	1.2	-	-	-	-	-	-	-	N/A
SF:Classroom 08	-	-	-	1.2	-	-	-	-	-	-	-	N/A
SF:Classroom 13	-	-	-	1.2	-	-	-	-	-	-	-	N/A
SF:Classroom 11	-	-	-	1.2	-	-	-	-	-	-	-	N/A
SF:Science Prep	-	-	-	1.4	-	-	-	-	-	-	-	N/A
SF:Classroom 10	-	-	-	1.2	-	-	-	-	-	-	-	N/A
SF:Classroom 04	-	-	-	1.2	-	-	-	-	-	-	-	N/A
SF:Classroom 12	-	-	-	1.2	-	-	-	-	-	-	-	N/A
SF:LRC	-	-	-	1.4	-	-	-	-	-	-	-	N/A
SF:LRC	-	-	-	1.4	-	-	-	-	-	-	-	N/A
GF:Pupil Change Showers	-	-	-	1.4	-	-	-	-	-	-	-	N/A
GF:Pupil change	-	-	-	1.4	-	-	-	-	-	-	-	N/A
GF:Pupil Change Showers	-	-	-	1.4	-	-	-	-	-	-	-	N/A
GF:Pupil Change	-	-	-	1.4	-	-	-	-	-	-	-	N/A
SF:Seminar Room	-	-	-	1.2	-	-	-	-	-	-	-	N/A
GF:Dining	-	-	-	1.6	-	-	-	-	-	-	-	N/A
GF:Dining	-	-	-	1.6	-	-	-	-	-	-	-	N/A

General lighting and display lighting		Luminous efficacy [lm/W]			General lighting [W]
Zone name		Luminaire	Lamp	Display lamp	
Standard value		60	60	22	
GF:Conference		48	-	-	166
GF:AWC		-	202	-	21
GF:Interview		79	-	-	35
GF:LRC		56	-	-	71
GF:Circulation 08		-	126	-	77
GF:Cent Stock		90	-	-	36
GF:Circulation		-	103	-	104

General lighting and display lighting		Luminous efficacy [lm/W]			General lighting [W]
Zone name	Standard value	Luminaire	Lamp	Display lamp	
GF:Entrance	60	71	-	-	51
GF:SEN/Therapy	60	60	-	-	78
GF:LRC	70	70	-	-	52
GF:Med 1PO	72	72	-	-	48
GF:DT St	110	110	-	-	30
GF:Dt St	110	110	-	-	30
GF:Circulation 07	-	-	99	-	130
GF:Plant	52	52	-	-	126
GF:Plant	71	71	-	-	57
GF:DT St	92	92	-	-	33
GF:Staff WC	-	-	201	-	20
GF:IT St	94	94	-	-	30
GF:Drama St	67	67	-	-	67
GF:App	86	86	-	-	41
GF:It St	88	88	-	-	34
GF:It St	92	92	-	-	30
GF:Cent Stock	85	85	-	-	36
GF:LRC	49	49	-	-	137
GF:Chair St	52	52	-	-	127
GF:DT St	88	88	-	-	39
GF:AWC	-	-	208	-	20
GF:CL St	120	120	-	-	5
GF:Exam St	115	115	-	-	24
GF:Cent Stock (office)	79	79	-	-	38
GF:Food Prep	66	66	-	-	53
GF:DT St	66	66	-	-	61
GF:Circulation 09	-	-	115	-	91
GF:Circulation 10	-	-	104	-	100
GF:Med 2PO	54	54	-	-	96
GF:Multi Mat Prep	47	47	-	-	180
GF:Music St	90	90	-	-	33
GF:Ext Practice	56	56	-	-	79
FF:Art St	86	86	-	-	34
FF:Circulation 07	-	-	99	-	130
FF:Kiln Room	98	98	-	-	27
FF:Art St	120	120	-	-	16
FF:Art St	120	120	-	-	16
FF:Circulation 8	-	-	99	-	132
FF:Circulation 05	-	-	99	-	133
FF:ICT/Business Studies	43	43	-	-	287
FF:Sml 1PO	68	68	-	-	48
FF:Art St	94	94	-	-	31
FF:Seminar Room	47	47	-	-	158

General lighting and display lighting		Luminous efficacy [lm/W]			General lighting [W]
Zone name	Standard value	Luminaire	Lamp	Display lamp	
FF:SEN St	85	-	-	-	35
FF:2 Person Office	69	-	-	-	50
FF:Server	58	-	-	-	84
FF:LRC 01	49	-	-	-	135
FF:Small Grp	59	-	-	-	62
FF:AWC	-	-	220	-	18
FF:CI St	120	-	-	-	7
FF:CL St	120	-	-	-	5
FF:Circulation 06	-	-	99	-	130
SF:Circulation 01	-	-	99	-	132
SF:Circulation 02	-	-	99	-	133
SF:Med 1PO	69	-	-	-	49
SF:SENco	63	-	-	-	60
SF:Med 1PO	69	-	-	-	49
SF:Exam St	74	-	-	-	50
SF:Chemical St	73	-	-	-	48
SF:Staff WC	-	-	220	-	18
SF:LRC	47	-	-	-	156
SF:Circulation	-	-	99	-	130
SF:Circulation 03	-	-	99	-	130
FF:IT St	92	-	-	-	31
FF:3 Person Office	60	-	-	-	75
GF:PE St	45	-	-	-	317
GF:PE St Act	70	-	-	-	75
GF:Hub	66	-	-	-	59
GF:Circulation 05	-	-	99	-	130
GF:Staff Change	-	-	162	-	29
GF:Ext PE St	71	-	-	-	50
GF:Circulation	-	-	106	-	93
GF:Hygiene	-	-	120	-	58
GF:MEd 2PO	69	-	-	-	47
GF:Other Pupil WC	-	-	241	-	15
GF:Staff Change	-	-	164	-	28
GF:Music Practice 01	70	-	-	-	41
GF:Music Practice 02	71	-	-	-	39
GF:Music St	90	-	-	-	34
GF:Music Practice 03	70	-	-	-	40
GF:Music Practice 04	72	-	-	-	37
GF:Music Practice 05	71	-	-	-	38
GF:Circulation 02	-	-	125	-	126
GF:3-4 Person Office	57	-	-	-	89
GF:Exam St	120	-	-	-	27
GF:Sixth Form Social	-	-	83	-	585



General lighting and display lighting		Luminous efficacy [lm/W]			General lighting [W]
Zone name	Standard value	Luminaire	Lamp	Display lamp	
GF:Sixth Form Study Area	41	-	-	-	637
GF:Circulation	-	-	95	-	167
GF:General Office	44	-	-	-	336
GF:Prep Man	52	-	-	-	108
GF:Indl WC	-	-	203	-	23
FF:LRC 02	51	-	-	-	146
FF:Circulation 03	-	-	107	-	434
FF:ICT/Business Studies	43	-	-	-	300
FF:2 Person Office	72	-	-	-	57
FF:ICT Tech	59	-	-	-	87
FF:Indl WC	-	-	203	-	23
SF:CL St	120	-	-	-	18
SF:AWC	-	-	170	-	27
SF:Plant	45	-	-	-	276
SF:Circulation 05	-	-	105	-	501
SF:Circulation 02	-	-	107	-	409
SF:Circulation 03	-	-	114	-	185
FF:Circulation 01	-	-	112	-	309
GF:Pupil WC	-	-	107	-	87
GF:Pupil WC	-	-	123	-	72
GF:Pupil WC	-	-	123	-	73
GF:Pupil WC	-	-	123	-	68
GF:Circulation 03	-	-	108	-	420
GF:Pupil WC	-	-	123	-	72
GF:Circulation 04	-	-	99	-	556
FF:Pupil WC	-	-	123	-	72
FF:Pupil WC	-	-	123	-	72
FF:Pupil WC	-	-	123	-	73
FF:Pupil WC	-	-	123	-	72
SF:Pupil WC	-	-	123	-	72
SF:Circulation 01	-	-	111	-	483
SF:Pupil WC	-	-	123	-	72
GF:Circulation 06	-	-	103	-	116
GF:Kitchen	-	-	82	-	893
GF:Drama Studio	50	-	-	-	639
GF:Circulation 01	-	-	113	-	311
SF:LRC	49	-	-	-	135
GF:Sports Hall	-	-	84	-	3284
GF:Main Hall	45	-	-	-	1461
SF:2 Person Office	66	-	-	-	54
SF:Lrg Grp Rm	59	-	-	-	66
SF:2 Person Office	67	-	-	-	53
SF:Med 1PO	67	-	-	-	53

General lighting and display lighting		Luminous efficacy [lm/W]			General lighting [W]
Zone name	Standard value	Luminaire	Lamp	Display lamp	
SF:Circulation 04	-	-	92	-	318
GF:Comm St	114	-	-	-	29
GF:Activity Studio	48	-	-	-	804
GF:Textiles	42	-	-	-	669
GF:Food Studio	41	-	-	-	811
GF:Electronics	42	-	-	-	660
GF:Graphics	42	-	-	-	658
GF:Resistant Material	41	-	-	-	764
GF:Music Classroom 02	43	-	-	-	295
GF:Music Classroom 01	43	-	-	-	288
GF:Classroom	43	-	-	-	255
FF:General Art Room	42	-	-	-	391
FF:Classroom 07	43	-	-	-	257
FF:Classroom 08	43	-	-	-	261
FF:Heads Office	56	-	-	-	83
FF:PA Office	74	-	-	-	41
FF:Meeting Room	54	-	-	-	94
FF:Circulation 04	-	-	93	-	569
FF:LRC 03	43	-	-	-	262
FF:Classroom 11	43	-	-	-	267
FF:Classroom 10	43	-	-	-	262
FF:Classroom 13	43	-	-	-	263
FF:Classroom 12	43	-	-	-	266
FF:Classroom 14	43	-	-	-	262
FF:Classroom 15	43	-	-	-	263
FF:Classroom 17	43	-	-	-	259
FF:Classroom 18	43	-	-	-	261
FF:Circulation	-	-	106	-	710
FF:LRC	48	-	-	-	141
FF:Classroom 16	43	-	-	-	255
FF:Classroom 01	43	-	-	-	256
FF:Classroom 02	43	-	-	-	257
FF:Classroom 03	43	-	-	-	258
FF:Classroom 04	43	-	-	-	257
FF:Classroom 05	43	-	-	-	257
FF:Classroom 06	43	-	-	-	258
FF:General Art Room	42	-	-	-	391
SF:General Science Lab 06	1	-	-	-	670
SF:General Science Lab 07	1	-	-	-	678
FF:Staff Room	43	-	-	-	318
SF:General Science Lab 08	1	-	-	-	665
SF:Classroom 01	43	-	-	-	266
SF:Classroom 02	43	-	-	-	262

General lighting and display lighting		Luminous efficacy [lm/W]			General lighting [W]
Zone name		Luminaire	Lamp	Display lamp	
	Standard value	60	60	22	
SF:Classroom 14	43	-	-	-	263
SF:Classroom 09	43	-	-	-	261
SF:General Science Lab 01	1	-	-	-	654
SF:General Science Lab 02	1	-	-	-	653
SF:General Science Lab 03	1	-	-	-	680
SF:General Science Lab 04	1	-	-	-	662
SF:General Science Lab 05	1	-	-	-	655
SF:Classroom 05	43	-	-	-	259
SF:Classroom 06	43	-	-	-	266
SF:Classroom 07	43	-	-	-	256
SF:Classroom 08	43	-	-	-	255
SF:Classroom 13	47	-	-	-	259
SF:Classroom 11	43	-	-	-	261
SF:Science Prep	42	-	-	-	495
SF:Classroom 10	43	-	-	-	273
SF:Classroom 04	43	-	-	-	270
SF:Classroom 12	43	-	-	-	272
SF:LRC	51	-	-	-	132
SF:LRC	47	-	-	-	162
GF:Pupil Change Showers	-	152	-	-	37
GF:Pupil change	49	-	-	-	148
GF:Pupil Change Showers	-	107	-	-	101
GF:Pupil Change	50	-	-	-	237
SF:Seminar Room	47	-	-	-	167
GF:Dining	-	88	-	-	299
GF:Dining	-	88	-	-	1835

**Criterion 3: The spaces in the building should have appropriate passive control measures to limit solar gains**

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
GF:Conference	NO (-19.7%)	NO
GF:Interview	NO (-47.9%)	NO
GF:LRC	N/A	N/A
GF:Entrance	N/A	N/A
GF:SEN/Therapy	N/A	N/A
GF:LRC	N/A	N/A
GF:Med 1PO	NO (-71.5%)	NO
GF:LRC	N/A	N/A
GF:Cent Stock (office)	N/A	N/A
GF:Food Prep	N/A	N/A
GF:Med 2PO	N/A	N/A
GF:Multi Mat Prep	N/A	N/A
GF:Ext Practice	N/A	N/A
FF:ICT/Business Studies	N/A	N/A

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
FF:Sml 1PO	N/A	N/A
FF:Seminar Room	N/A	N/A
FF:2 Person Office	N/A	N/A
FF:Server	N/A	N/A
FF:LRC 01	N/A	N/A
FF:Small Grp	N/A	N/A
SF:Med 1PO	NO (-22.5%)	NO
SF:SENco	NO (-36.2%)	NO
SF:Med 1PO	NO (-22.8%)	NO
SF:LRC	NO (-19.6%)	NO
FF:3 Person Office	N/A	N/A
GF:MEd 2PO	N/A	N/A
GF:Music Practice 01	N/A	N/A
GF:Music Practice 02	N/A	N/A
GF:Music Practice 03	N/A	N/A
GF:Music Practice 04	N/A	N/A
GF:Music Practice 05	N/A	N/A
GF:3-4 Person Office	N/A	N/A
GF:Sixth Form Social	NO (-9.1%)	NO
GF:Sixth Form Study Area	NO (-11.1%)	NO
GF:General Office	NO (-75.2%)	NO
GF:Prep Man	N/A	N/A
FF:LRC 02	NO (-51.3%)	NO
FF:ICT/Business Studies	N/A	N/A
FF:2 Person Office	N/A	N/A
FF:ICT Tech	N/A	N/A
GF:Drama Studio	N/A	N/A
SF:LRC	NO (-50.3%)	NO
GF:Sports Hall	NO (-73.7%)	NO
GF:Main Hall	NO (-28.7%)	NO
SF:2 Person Office	NO (-66.1%)	NO
SF:Lrg Grp Rm	NO (-79%)	NO
SF:2 Person Office	NO (-79%)	NO
SF:Med 1PO	NO (-64.7%)	NO
GF:Activity Studio	NO (-71.2%)	NO
GF:Textiles	NO (-37.3%)	NO
GF:Food Studio	NO (-48.3%)	NO
GF:Electronics	NO (-29.3%)	NO
GF:Graphics	NO (-31.4%)	NO
GF:Resistant Material	NO (-24.8%)	NO
GF:Music Classroom 02	NO (-11.6%)	NO
GF:Music Classroom 01	NO (-32.7%)	NO
GF:Classroom	NO (-34%)	NO
FF:General Art Room	NO (-37.8%)	NO
FF:Classroom 07	NO (-22.2%)	NO
FF:Classroom 08	NO (-23.3%)	NO
FF:Heads Office	NO (-58.5%)	NO
FF:PA Office	NO (-16.9%)	NO
FF:Meeting Room	NO (-56%)	NO



Zone	Solar gain limit exceeded? (%)	Internal blinds used?
FF:LRC 03	NO (-23.7%)	NO
FF:Classroom 11	NO (-32.6%)	NO
FF:Classroom 10	NO (-31.4%)	NO
FF:Classroom 13	NO (-31.7%)	NO
FF:Classroom 12	NO (-32.2%)	NO
FF:Classroom 14	NO (-31.4%)	NO
FF:Classroom 15	NO (-31.6%)	NO
FF:Classroom 17	NO (-27%)	NO
FF:Classroom 18	NO (-27.3%)	NO
FF:LRC	NO (-25%)	NO
FF:Classroom 16	NO (-34%)	NO
FF:Classroom 01	NO (-24.3%)	NO
FF:Classroom 02	NO (-24.6%)	NO
FF:Classroom 03	NO (-24.8%)	NO
FF:Classroom 04	NO (-24.5%)	NO
FF:Classroom 05	NO (-24.7%)	NO
FF:Classroom 06	NO (-24.7%)	NO
FF:General Art Room	NO (-36.1%)	NO
SF:General Science Lab 06	NO (-53.4%)	NO
SF:General Science Lab 07	NO (-38.2%)	NO
FF:Staff Room	NO (-56.8%)	NO
SF:General Science Lab 08	NO (-36.9%)	NO
SF:Classroom 01	NO (-32.2%)	NO
SF:Classroom 02	NO (-31.4%)	NO
SF:Classroom 14	NO (-31.6%)	NO
SF:Classroom 09	NO (-54.7%)	NO
SF:General Science Lab 01	NO (-35.1%)	NO
SF:General Science Lab 02	NO (-59%)	NO
SF:General Science Lab 03	NO (-33.5%)	NO
SF:General Science Lab 04	NO (-31.7%)	NO
SF:General Science Lab 05	NO (-31%)	NO
SF:Classroom 05	NO (-25.2%)	NO
SF:Classroom 06	NO (-27.2%)	NO
SF:Classroom 07	NO (-24.3%)	NO
SF:Classroom 08	NO (-67%)	NO
SF:Classroom 13	NO (-77.1%)	NO
SF:Classroom 11	NO (-27.3%)	NO
SF:Science Prep	NO (-9.2%)	NO
SF:Classroom 10	NO (-21.3%)	NO
SF:Classroom 04	NO (-17%)	NO
SF:Classroom 12	NO (-1.4%)	NO
SF:LRC	NO (-65.2%)	NO
SF:LRC	NO (-38.1%)	NO
SF:Seminar Room	NO (-9.9%)	NO
GF:Dining	NO (-0.9%)	NO
GF:Dining	NO (-55.5%)	NO

**Criterion 4: The performance of the building, as built, should be consistent with the calculated BER**

Separate submission

**Criterion 5: The necessary provisions for enabling energy-efficient operation of the building should be in place**

Separate submission

**EPBD (Recast): Consideration of alternative energy systems**

Were alternative energy systems considered and analysed as part of the design process?	YES
Is evidence of such assessment available as a separate submission?	YES
Are any such measures included in the proposed design?	YES

## Technical Data Sheet (Actual vs. Notional Building)

Building Global Parameters			Building Use	
	Actual	Notional	% Area	Building Type
Area [m <sup>2</sup> ]	8339.2	8339.2		A1/A2 Retail/Financial and Professional services
External area [m <sup>2</sup> ]	11186.9	11186.9		A3/A4/A5 Restaurants and Cafes/Drinking Est./Takeaways
Weather	LON	LON		B1 Offices and Workshop businesses
Infiltration [m <sup>3</sup> /hm <sup>2</sup> @ 50Pa]	5	3		B2 to B7 General Industrial and Special Industrial Groups
Average conductance [W/K]	3526.91	4027.32		B8 Storage or Distribution
Average U-value [W/m <sup>2</sup> K]	0.32	0.36		C1 Hotels
Alpha value* [%]	10.12	10		C2 Residential Institutions: Hospitals and Care Homes
* Percentage of the building's average heat transfer coefficient which is due to thermal bridging				C2 Residential Institutions: Residential schools
				C2 Residential Institutions: Universities and colleges
				C2A Secure Residential Institutions
				Residential spaces
				D1 Non-residential Institutions: Community/Day Centre
				D1 Non-residential Institutions: Libraries, Museums, and Galleries
			100	<b>D1 Non-residential Institutions: Education</b>
				D1 Non-residential Institutions: Primary Health Care Building
				D1 Non-residential Institutions: Crown and County Courts
				D2 General Assembly and Leisure, Night Clubs, and Theatres
				Others: Passenger terminals
				Others: Emergency services
				Others: Miscellaneous 24hr activities
				Others: Car Parks 24 hrs
				Others: Stand alone utility block

## Energy Consumption by End Use [kWh/m<sup>2</sup>]

	Actual	Notional
Heating	6.04	6.84
Cooling	0.02	0.01
Auxiliary	4.8	3.23
Lighting	6.67	12.84
Hot water	22.57	15.54
Equipment*	19.54	19.54
TOTAL **	40.11	38.46

\* Energy used by equipment does not count towards the total for consumption or calculating emissions.  
\*\* Total is net of any electrical energy displaced by CHP generators, if applicable.

## Energy Production by Technology [kWh/m<sup>2</sup>]

	Actual	Notional
Photovoltaic systems	6.73	0
Wind turbines	0	0
CHP generators	0	0
Solar thermal systems	0	0

## Energy & CO<sub>2</sub> Emissions Summary

	Actual	Notional
Heating + cooling demand [MJ/m <sup>2</sup> ]	19.32	21.36
Primary energy* [kWh/m <sup>2</sup> ]	69.3	75.44
Total emissions [kg/m <sup>2</sup> ]	8.5	13

\* Primary energy is net of any electrical energy displaced by CHP generators, if applicable.

HVAC Systems Performance									
System Type	Heat dem MJ/m2	Cool dem MJ/m2	Heat con kWh/m2	Cool con kWh/m2	Aux con kWh/m2	Heat SSEF	Cool SSEER	Heat gen SEFF	Cool gen SEER
[ST] Central heating using water: radiators, [HS] LTHW boiler, [HFT] Natural Gas, [CFT] Electricity									
Actual	14.2	0	4.4	0	6.1	0.9	0	0.96	0
Notional	0	0	0	0	0	0	0	----	----
[ST] Central heating using water: radiators, [HS] LTHW boiler, [HFT] Natural Gas, [CFT] Electricity									
Actual	6.4	0	2	0	13.9	0.9	0	0.96	0
Notional	15.2	0	4.9	0	4.4	0.96	0	----	----
[ST] Split or multi-split system, [HS] LTHW boiler, [HFT] Natural Gas, [CFT] Electricity									
Actual	23.3	147.3	7.2	16.6	2.1	0.9	2.47	0.96	3.3
Notional	4.6	0	1.5	0	10.7	0.96	0	----	----
[ST] Central heating using water: radiators, [HS] LTHW boiler, [HFT] Natural Gas, [CFT] Electricity									
Actual	21	0	6.5	0	1.8	0.9	0	0.96	0
Notional	20.8	92.1	6.7	6.8	1.3	0.96	3.79	----	----
[ST] Single room cooling system, [HS] Heat pump (electric): air source, [HFT] Electricity, [CFT] Electricity									
Actual	0	0	0	0	0	3.43	2.47	3.5	3.3
Notional	22.2	0	7.1	0	1.1	0.96	0	----	----
[ST] Flued radiant heater, [HS] Unitary radiant heater, [HFT] Natural Gas, [CFT] Electricity									
Actual	27.3	0	9.4	0	3.5	0.81	0	0.96	0
Notional	0	0	0	0	0	2.56	3.79	----	----
[ST] Central heating using water: radiators, [HS] LTHW boiler, [HFT] Natural Gas, [CFT] Electricity									
Actual	29.5	0	9.1	0	5.1	0.9	0	0.96	0
Notional	36.5	0	11.8	0	2	0.96	0	----	----
[ST] No Heating or Cooling									
Actual	0	0	0	0	0	0	0	0	0
Notional	29.7	0	9.6	0	3.2	0.96	0	----	----

#### Key to terms

Heat dem [MJ/m2]	= Heating energy demand
Cool dem [MJ/m2]	= Cooling energy demand
Heat con [kWh/m2]	= Heating energy consumption
Cool con [kWh/m2]	= Cooling energy consumption
Aux con [kWh/m2]	= Auxiliary energy consumption
Heat SSEFF	= Heating system seasonal efficiency (for notional building, value depends on activity glazing class)
Cool SSEER	= Cooling system seasonal energy efficiency ratio
Heat gen SSEFF	= Heating generator seasonal efficiency
Cool gen SSEER	= Cooling generator seasonal energy efficiency ratio
ST	= System type
HS	= Heat source
HFT	= Heating fuel type
CFT	= Cooling fuel type



## Key Features

The Building Control Body is advised to give particular attention to items whose specifications are better than typically expected.

### Building fabric

Element	U <sub>i-Typ</sub>	U <sub>i-Min</sub>	Surface where the minimum value occurs*
Wall	0.23	0.21	GF000000:Surf[11]
Floor	0.2	0.21	GF000000:Surf[0]
Roof	0.15	0.16	FF000043:Surf[0]
Windows, roof windows, and rooflights	1.5	1.2	GF00003E:Surf[17]
Personnel doors	1.5	-	No Personnel doors in building
Vehicle access & similar large doors	1.5	-	No Vehicle access doors in building
High usage entrance doors	1.5	-	No High usage entrance doors in building
U <sub>i-Typ</sub> = Typical individual element U-values [W/(m²K)]			U <sub>i-Min</sub> = Minimum individual element U-values [W/(m²K)]
* There might be more than one surface where the minimum U-value occurs.			

Air Permeability	Typical value	This building
m³/(h.m²) at 50 Pa	5	5

## APPENDIX B1 - FURTHER CARBON REDUCTION MEASURES

### Avoiding Active Cooling

The Part L assessment for the project does not recognise that exemplar levels of passive design in the CO<sub>2</sub> emission reduction where a traditional school would require significant amounts of comfort cooling. As discussed in the main body of the report under section 2.2, the building eliminates the need for active cooling in favour of passive design solutions. The resultant compliance with TM52 in all occupied spaces is testament to the passive design strategy that has been adopted and gives a significantly better performance than would be required to satisfy Building Bulletin 101 – Ventilation for School Buildings.

To measure the benefit of the passive design that is not included in the Part L compliance calculation, the project model has been re-simulated as an air-conditioned building, where the occupied rooms have been simulated with a generic cooling system. The Target Emission Rate generated in the BRUKL report for this cooled building represents the emission rate that would otherwise be designed against and shows the actual benefit. When modelled with active cooling in all occupied spaces, the resultant increase in CO<sub>2</sub> emissions of the TER is 11.720 TonnesCO<sub>2</sub>/yr. When measured per unit of floor area, this equates to 1.4 kgCO<sub>2</sub>/m<sup>2</sup>/yr, the equivalent of a further 10.77 % reduction in the buildings CO<sub>2</sub> emissions when compared with the non-air-conditioned notional building. Please refer to Appendix B2 for the modelling outputs.

### Reduction in Hot Water Demand

The design proposals include water efficient fittings throughout such as low volumes WCs. Consequently, to meet the OS requirement, the domestic hot water consumption is reduced significantly. The amount of water consumption is fixed within a Part L BRUKL calculation and therefore the associated CO<sub>2</sub> saving would not be rewarded. In order to appraise the additional CO<sub>2</sub> emission reduction measure for the domestic hot water reduction, a comparison of the proposed shower and wash hand basin fittings with industry norms has been made in the table below, in this case taken from 'BS 8542:2011 – Calculating Domestic Water Consumption in Non-Domestic Buildings – Code of Practice' using the 'fair' standard of water efficiency which is defined as "improvement on current practice".

Sanitary Fitting	BS 8542 Flow-rate	Turing Proposed Flow-rate	Annual CO <sub>2</sub> Saving	Annual CO <sub>2</sub> Saving by floor area
Showers	10 litres/min	6 litres/min	2,815.34 kgCO <sub>2</sub> /yr	0.3363 kgCO <sub>2</sub> /m <sup>2</sup> /yr
Wash Hand Basin Taps	9 litres/min	2 litres/min	7,742.20 kgCO <sub>2</sub> /yr	0.9248 kgCO <sub>2</sub> /m <sup>2</sup> /yr
Total Savings			10,557.54 kgCO <sub>2</sub> /yr	<b>1.2611 kgCO<sub>2</sub>/m<sup>2</sup>/yr</b>

It should be noted that the following usage pattern has been assumed which is as the project Water Consumption calculations: -

- Each building occupant shall have on average a 5-minute shower once every two weeks
- Shower temperature is limited to 38°C
- Each building occupant shall on average use a wash hand basin 2.5 time per day for 15 seconds per use
- Wash hand basin temperature is limited to 43°C

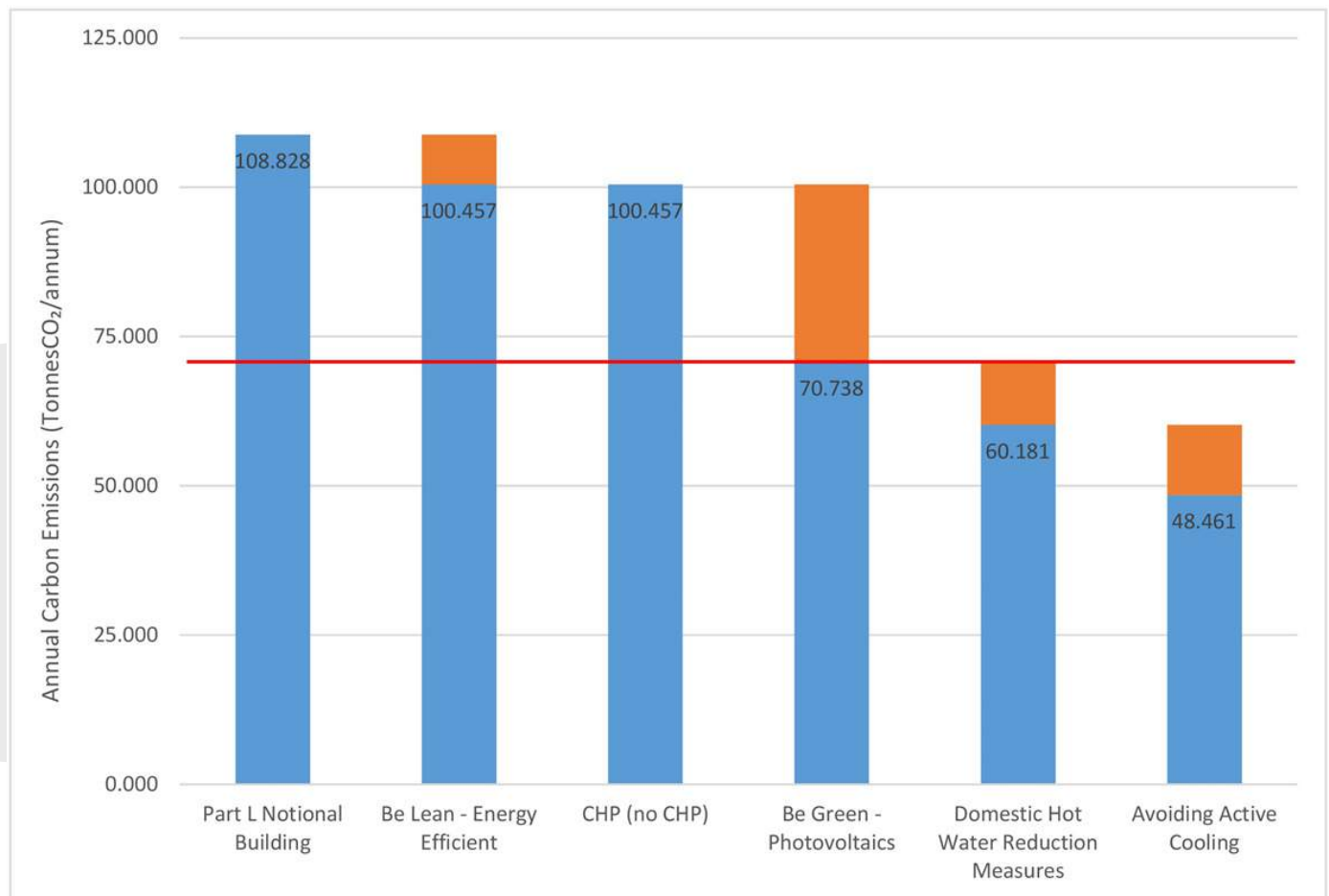
The overall CO<sub>2</sub> reduction for reducing domestic hot water consumption represents a further 9.70 % reduction when compared with the notional building.

## Building Performance with Further Carbon Savings Creating a Leaner and Cleaner Building

Taking the calculated savings from avoiding active cooling and reducing domestic hot water usage results in a building that requires less energy to function. These savings are shown in the below extended table, comparable to the table in the Executive Summary in the Main Report which shows the full carbon reduction to be achieved.

Energy Efficiency Measure	CO <sub>2</sub> Emission Savings	% CO <sub>2</sub> reduction for building
'Be Lean' - Fabric First Approach (BRUKL)	8.371 TonnesCO <sub>2</sub> /year	7.69 %
'Be Green' - Photovoltaic Panels	29.718 TonnesCO <sub>2</sub> /year	27.31 %
Avoiding Active Cooling	11.720 TonnesCO <sub>2</sub> /year	10.77 %
Reduction in Hot Water Demand	10.558 TonnesCO <sub>2</sub> /year	9.70 %
<b>Total CO<sub>2</sub> Emission Reduction</b>	<b>60.367 TonnesCO<sub>2</sub>/year</b>	<b>55.47 %</b>

The carbon emission savings outlined in the table above is presented on the graph below in the GLA format to demonstrate CO<sub>2</sub> savings against each item relative to the GLA target.



The calculated further savings equate to an annual carbon emission reduction in excess of 22.2 TonnesCO<sub>2</sub>/annum on top of the 'Be Lean' and 'Be Green' measures as discussed in the Main Report to produce a total carbon saving of more than 60.3 TonnesCO<sub>2</sub>/annum which exceeds the 35% target reduction over the Notional Building.



## APPENDIX B2 - ACTIVE COOLING ENERGY CONSUMPTION

The image below shows the BRUKL report from the building should it have been designed with mechanical cooling in the occupied rooms. The Target Emission Rate (TER) has been taken from this to show the savings in energy consumption from designing avoiding active cooling with hybrid ventilation.

### BRUKL Output Document



Compliance with England Building Regulations Part L 2013

#### Project name

**Turing House School**

As built

Date: Thu Aug 16 17:38:52 2018

#### Administrative information

##### Building Details

Address: Hospital Bridge Road, Twickenham, TW2 6LH

##### Owner Details

Name:

Telephone number:

Address: . .

##### Certification tool

Calculation engine: Apache

Calculation engine version: 7.0.9

Interface to calculation engine: IES Virtual Environment

Interface to calculation engine version: 7.0.9

BRUKL compliance check version: v5.4.a.1

##### Certifier details

Name:

Telephone number:

Address: . .

#### Criterion 1: The calculated CO<sub>2</sub> emission rate for the building must not exceed the target

The building does not comply with England Building Regulations Part L 2013

CO <sub>2</sub> emission rate from the notional building, kgCO <sub>2</sub> /m <sup>2</sup> .annum	14.4
Target CO <sub>2</sub> emission rate (TER), kgCO <sub>2</sub> /m <sup>2</sup> .annum	14.4
Building CO <sub>2</sub> emission rate (BER), kgCO <sub>2</sub> /m <sup>2</sup> .annum	16.1
Are emissions from the building less than or equal to the target?	BER > TER
Are as built details the same as used in the BER calculations?	Separate submission

#### Criterion 2: The performance of the building fabric and fixed building services should achieve reasonable overall standards of energy efficiency

Values which do not achieve the standards in the Non-Domestic Building Services Compliance Guide and Part L are displayed in red.

##### Building fabric

Element	U <sub>a-Limit</sub>	U <sub>a-Calc</sub>	U <sub>i-Calc</sub>	Surface where the maximum value occurs*
Wall**	0.35	0.21	0.26	FF000009:Surf[0]
Floor	0.25	0.21	0.21	GF000000:Surf[0]
Roof	0.25	0.16	0.16	FF000032:Surf[0]
Windows***, roof windows, and rooflights	2.2	1.33	1.35	GF000006:Surf[1]
Personnel doors	2.2	-	-	No Personnel doors in building
Vehicle access & similar large doors	1.5	-	-	No Vehicle access doors in building
High usage entrance doors	3.5	-	-	No High usage entrance doors in building
U <sub>a-Limit</sub> = Limiting area-weighted average U-values [W/(m <sup>2</sup> K)] U <sub>a-Calc</sub> = Calculated area-weighted average U-values [W/(m <sup>2</sup> K)] U <sub>i-Calc</sub> = Calculated maximum individual element U-values [W/(m <sup>2</sup> K)]				
* There might be more than one surface where the maximum U-value occurs. ** Automatic U-value check by the tool does not apply to curtain walls whose limiting standard is similar to that for windows. *** Display windows and similar glazing are excluded from the U-value check. N.B.: Neither roof ventilators (inc. smoke vents) nor swimming pool basins are modelled or checked against the limiting standards by the tool.				

Air Permeability	Worst acceptable standard	This building
m <sup>3</sup> /(h.m <sup>2</sup> ) at 50 Pa	10	5

## APPENDIX C1 - TM52 A MODERATELY WARM SUMMER FUTURE (2020) RESULTS

Room Name	Criteria 1	Criteria 2	Criteria 3
GF:Conference	5.2	14	5
GF:Med 1PO	1.2	6	3
GF:Interview	3.7	15	4
GF:LRC	2.6	12	4
GF:Entrance	2.1	8	4
GF:SEN/Therapy	2.1	8	4
GF:LRC	3.5	14	5
GF:LRC	3.7	13	5
GF:Drama Studio	5.2	12	5
GF:Cent Stock (office)	2.3	8	4
GF:Food Prep	2.8	9	4
GF:Food Studio	3.2	13	5
GF:Med 2PO	3.4	11	5
GF:Music Classroom 01	3.8	13	5
GF:Multi Mat Prep	1.1	6	3
GF:Ext Practice	4.6	12	6
GF:Main Hall	4.8	13	4
GF:Kitchen	1.9	11	4
GF:Activity Studio	2	9	3
GF:Sports Hall	0.4	2	1
GF:Dining	0.9	2	2
GF:Textiles	4.6	13	5
GF:Electronics	4	15	5
GF:Graphics	4.7	13	5
GF:Resistant Material	3.7	13	5
GF:Music Classroom 02	4.4	14	5
GF:Classroom	4.4	13	5
GF:2 Person Office	1.4	7	3
GF:Music Practice 01	2.1	8	4
GF:Music Practice 02	2.4	8	4
GF:Music Practice 03	3.1	9	5
GF:Music Practice 04	2.3	10	5
GF:Music Practice 05	3.2	11	5
GF:3-4 Person Office	2.9	11	5
GF:Sixth Form Social	0.9	2	2
GF:Sixth Form Study Area	5.5	20	6
GF:General Office	2	8	3
GF:Prep Man	1.5	7	4
FF:Classroom 07	3.7	13	5
FF:Heads Office	3.5	8	3
FF:PA Office	4	9	4
FF:LRC 03	2	10	3
FF: Small 1PO	0.6	3	2
FF:Seminar Room	4.6	13	5
FF:Med 2PO	0.6	3	2
FF:LRC 01	1.7	8	3
FF:Small Group	2.6	9	4
FF:Lrg 3PO	1.1	6	3
FF:General Art Room	2.6	10	4
FF:Classroom 08	3.8	14	5
FF:LRC	1.2	6	3
FF:Meeting room	1.5	6	3
FF:Classroom 11	4.7	13	5
FF:Classroom 10	3.7	13	5

Room Name	Criteria 1	Criteria 2	Criteria 3
FF:Classroom 13	3.7	13	5
FF:Classroom 12	3.7	13	5
FF:Classroom 14	3.7	13	5
FF:Classroom 15	3.5	13	5
FF:Classroom 17	3.2	12	5
FF:Classroom 18	3.5	12	5
FF:Classroom 16	3.2	11	4
FF:Classroom 01	3.2	11	4
FF:Classroom 02	3.2	12	5
FF:Classroom 03	3.4	13	5
FF:Classroom 04	3.2	11	4
FF:Classroom 05	3.2	11	4
FF:Classroom 06	3.2	11	4
FF:General Art Room	1.7	9	4
FF:Staff Room	2	9	4
FF:LRC 02	1.2	6	3
FF:ICT/Business Studies	6	13	5
FF:ICT/Business Studies	5.8	13	5
FF:2 Person Office	2.1	8	4
FF:IT Tech Room	0.9	5	3
SF:Classroom 08	1.7	9	4
SF:Classroom 09	2.4	10	4
SF:LRC	0.9	5	2
SF:Med 1PO	1.8	8	3
SF:General Science Lab 03	3.4	11	4
SF:Classroom 11	3.2	12	5
SF:Science Prep	2.4	7	3
SF:LRC	1.2	6	3
SF:LRC	1.8	9	3
SF:Sml 2PO	2.6	10	4
SF:Lrg Group	4.7	11	4
SF:General Science Lab 06	3.5	12	4
SF:Seminar Room	5.4	16	6
SF:Sml 2PO	2	8	3
SF:General Science Lab 07	5.5	13	5
SF:General Science Lab 08	4	13	5
SF:Classroom 14	3.7	13	5
SF:Classroom 01	3.7	13	5
SF:Classroom 02	3.7	13	5
SF:General Science Lab 01	3.8	14	5
SF:General Science Lab 02	2.9	11	4
SF:General Science Lab 05	3.2	11	4
SF:General Science Lab 04	3.2	11	4
SF:Classroom 05	3.2	11	4
SF:Classroom 07	3.2	11	4
SF:Classroom 06	3.2	11	4
SF:Classroom 13	1.7	9	4
SF:Classroom 10	3.4	12	4
SF:Classroom 04	3.4	13	5
SF:Classroom 12	3.4	13	5
SF:Med 1PO	2.3	9	4
SF:SENco Office	2.1	9	4
SF:Med 1PO	2	8	3
SF:LRC	1.6	9	3

Unoccupied Spaces	Criteria 1
TM52 Criterion 1 Calculation	(%Hrs Top-Tmax>=1K)
GF:Circulation 08	3.9
GF:Circulation	0.5
GF:Circulation 07	0.5
GF:Circulation 09	0.5
GF:Circulation 10	0.5
FF:Circulation 07	0.0
FF:Circulation 8	1.7
FF:Circulation 05	1.3
FF:Circulation 06	0.0
SF:Circulation 01	3.3

Unoccupied Spaces	Criteria 1
TM52 Criterion 1 Calculation	(%Hrs Top-Tmax>=1K)
SF:Circulation 02	0.5
SF:Circulation	0.0
SF:Circulation 03	0.0
GF:Circulation 05	0.5
GF:Circulation	0.5
GF:Circulation 02	0.1
GF:Circulation	0.8
FF:Circulation 03	0.0
SF:Circulation 05	0.3
SF:Circulation 02	0.0

Unoccupied Spaces	Criteria 1
TM52 Criterion 1 Calculation	(%Hrs Top-Tmax>=1K)
SF:Circulation 03	0.1
FF:Circulation 01	0.0
GF:Circulation 03	0.1
GF:Circulation 04	0.1
SF:Circulation 01	0.0
GF:Circulation 01	0.0
SF:Circulation 04	0.3
FF:Circulation 04	0.1
FF:Circulation	0.0



## APPENDIX C2 - TM49 A MODERATELY WARM SUMMER (1989) RESULTS

Room Name	Criteria 1 (%Hrs Top-Tmax>=1K)	Criteria 2 (Max. Daily Deg.Hrs)	Criteria 3 (Max. DeltaT)
GF:Conference	3.8	10	4
GF:Interview	2.3	11	4
GF:LRC	1.3	9	4
GF:Entrance	1.2	6	3
GF:SEN/Therapy	1.1	5	3
GF:LRC	2.1	10	4
GF:Med 1PO	0.6	3	2
GF:LRC	1.2	7	3
GF:Cent Stock (office)	0.9	5	3
GF:Food Prep	1.7	7	4
GF:Med 2PO	1.8	8	4
GF:Multi Mat Prep	0.5	3	2
GF:Ext Practice	2.4	9	5
FF: Small 1PO	0.3	1	1
FF:Seminar Room	2.4	11	5
FF:Med 2PO	0.2	1	1
FF:LRC 01	0.8	5	2
FF:Small Group	1.4	6	3
SF:Med 1PO	1.2	6	3
SF:SENco Office	1.2	6	3
SF:Med 1PO	1.1	5	2
SF:LRC	0.9	5	2
FF:Lrg 3PO	0.5	3	2
GF:2 Person Office	0.8	5	2
GF:Music Practice 01	0.9	5	3
GF:Music Practice 02	1.5	7	4
GF:Music Practice 03	1.8	7	4
GF:Music Practice 04	1.5	8	4
GF:Music Practice 05	2.1	8	4
GF:3-4 Person Office	1.4	7	4
GF:Sixth Form Social	0.9	1	1
GF:Sixth Form Study Area	3.5	17	5
GF:General Office	1.1	6	3
GF:Prep Man	0.8	5	3
FF:LRC 02	0.7	5	2
FF:2 Person Office	0.8	5	3
FF:IT Tech Room	0.5	3	2
GF:Kitchen	1.2	9	4
GF:Drama Studio	2.3	8	4
SF:LRC	0.9	6	3
GF:Sports Hall	0	0	0
GF:Main Hall	0.6	5	2
SF:Sml 2PO	0.9	5	2
SF:Lrg Group	1.7	8	4
SF:Sml 2PO	0.9	5	2
SF:Med 1PO	0.5	3	2
GF:Activity Studio	0.5	2	1
GF:Dining	0	0	0
GF:Textiles	2.8	11	4
GF:Food Studio	1.7	9	4
GF:Electronics	2.1	10	4
GF:Graphics	3.4	11	4
GF:Resistant Material	2	9	4
GF:Music Classroom 02	2.3	11	5

Room Name	Criteria 1 (%Hrs Top-Tmax>=1K)	Criteria 2 (Max. Daily Deg.Hrs)	Criteria 3 (Max. DeltaT)
GF:Music Classroom 01	2.4	10	4
GF:Classroom	2.3	10	4
FF:General Art Room	1.4	6	3
FF:Classroom 07	2.1	10	4
FF:Classroom 08	2.1	10	4
FF:Heads Office	0.9	4	2
FF:PA Office	1.5	6	3
FF:Meeting room	0.9	5	2
FF:LRC 03	0.8	5	2
FF:Classroom 11	2.4	10	4
FF:Classroom 10	2	9	4
FF:Classroom 13	1.7	9	4
FF:Classroom 12	2	9	4
FF:Classroom 14	2	9	4
FF:Classroom 15	1.7	9	4
FF:Classroom 17	1.8	9	4
FF:Classroom 18	1.8	9	4
FF:LRC	0.7	6	3
FF:Classroom 16	1.5	9	4
FF:Classroom 01	1.5	9	4
FF:Classroom 02	1.5	9	4
FF:Classroom 03	1.5	9	4
FF:Classroom 04	1.5	9	4
FF:Classroom 05	1.5	9	4
FF:Classroom 06	1.5	9	4
FF:General Art Room	1.2	6	3
SF:General Science Lab 06	1.7	9	4
SF:General Science Lab 07	2.1	9	4
FF:Staff Room	1.4	7	3
SF:General Science Lab 08	2	9	4
SF:Classroom 01	2.3	9	4
SF:Classroom 02	2.3	9	4
SF:Classroom 14	2	9	4
SF:Classroom 09	1.4	9	4
SF:General Science Lab 01	2	10	4
SF:General Science Lab 02	1.7	9	3
SF:General Science Lab 03	1.5	9	4
SF:General Science Lab 04	1.5	9	4
SF:General Science Lab 05	1.5	9	4
SF:Classroom 05	1.5	9	4
SF:Classroom 06	1.5	9	4
SF:Classroom 07	1.5	9	4
SF:Classroom 08	1.2	6	3
SF:Classroom 13	1.2	6	3
SF:Classroom 11	1.7	9	4
SF:Science Prep	0.8	3	2
SF:Classroom 10	1.8	9	4
SF:Classroom 04	1.8	9	4
SF:Classroom 12	1.8	9	4
SF:LRC	0.5	3	2
SF:LRC	0.8	5	2
SF:Seminar Room	3.1	12	5
FF:ICT/Business Studies	3.4	11	4
FF:ICT/Business Studies	3.2	11	4

## APPENDIX C3 - TM49 A YEAR WITH A VERY INTENSE WARM SPELL (2003) RESULTS

Room Name	Criteria 1 (%Hrs Top-Tmax>=1K)	Criteria 2 (Max. Daily Deg. Hrs)	Criteria 3 (Max. DeltaT)
GF:Conference	6.1	23	7
GF:Interview	5.4	24	6
GF:LRC	3.5	18	6
GF:Entrance	3.4	13	5
GF:SEN/Therapy	3.1	12	5
GF:LRC	4.5	19	6
GF:Med 1PO	2.8	12	4
GF:LRC	3.4	15	6
GF:Cent Stock (office)	2.8	12	6
GF:Food Prep	3.7	15	6
GF:Med 2PO	4	14	6
GF:Multi Mat Prep	2.3	11	5
GF:Ext Practice	4.6	17	7
FF: Small 1PO	1.7	6	3
FF:Seminar Room	4.9	19	7
FF:Med 2PO	1.4	6	3
FF:LRC 01	2.2	10	4
FF:Small Group	3.2	13	5
SF:Med 1PO	4	16	6
SF:SENco Office	3.8	15	6
SF:Med 1PO	3.8	13	5
SF:LRC	2.9	17	5
FF:Lrg 3PO	1.8	8	4
GF:2 Person Office	2.6	12	5
GF:Music Practice 01	2.6	11	5
GF:Music Practice 02	3.4	13	6
GF:Music Practice 03	3.2	12	6
GF:Music Practice 04	3.2	14	6
GF:Music Practice 05	4.3	16	7
GF:3-4 Person Office	3.1	12	6
GF:Sixth Form Social	4.6	3	3
GF:Sixth Form Study Area	5.8	27	7
GF:General Office	2.9	13	5
GF:Prep Man	2.4	11	5
FF:LRC 02	2.6	14	5
FF:2 Person Office	2.6	12	5
FF:IT Tech Room	1.7	7	4
GF:Kitchen	3.2	19	7
GF:Drama Studio	4.6	15	6
SF:LRC	3	16	5
GF:Sports Hall	0.7	8	4
GF:Main Hall	2.8	13	5
SF:Sml 2PO	3.2	12	4
SF:Lrg Group	4.6	16	6
SF:Sml 2PO	3.2	10	4
SF:Med 1PO	2	10	4
GF:Activity Studio	1.7	6	3
GF:Dining	0.9	2	2
GF:Textiles	5.7	22	7
GF:Food Studio	4.1	19	7
GF:Electronics	5.7	22	7
GF:Graphics	5.8	20	7
GF:Resistant Material	4.4	19	7
GF:Music Classroom 02	4.6	20	7

Room Name	Criteria 1 (%Hrs Top-Tmax>=1K)	Criteria 2 (Max. Daily Deg. Hrs)	Criteria 3 (Max. DeltaT)
GF:Music Classroom 01	4.4	19	7
GF:Classroom	4.4	19	7
FF:General Art Room	4.1	18	6
FF:Classroom 07	4.9	19	6
FF:Classroom 08	5	19	6
FF:Heads Office	3.8	13	5
FF:PA Office	4.6	17	6
FF:Meeting room	3.1	13	5
FF:LRC 03	3.3	18	5
FF:Classroom 11	5.5	22	7
FF:Classroom 10	4.7	21	7
FF:Classroom 13	4.6	20	7
FF:Classroom 12	4.6	21	7
FF:Classroom 14	4.6	20	7
FF:Classroom 15	4.3	19	7
FF:Classroom 17	4.4	18	7
FF:Classroom 18	4.6	18	7
FF:LRC	2.5	14	5
FF:Classroom 16	3.8	17	6
FF:Classroom 01	4.1	18	6
FF:Classroom 02	4	17	6
FF:Classroom 03	4	17	6
FF:Classroom 04	3.8	17	6
FF:Classroom 05	3.8	17	6
FF:Classroom 06	3.8	17	6
FF:General Art Room	3.4	14	5
SF:General Science Lab 06	4.6	21	7
SF:General Science Lab 07	5.7	22	7
FF:Staff Room	3.5	17	6
SF:General Science Lab 08	4.7	22	7
SF:Classroom 01	5.2	22	7
SF:Classroom 02	5.2	22	7
SF:Classroom 14	4.6	20	7
SF:Classroom 09	3.7	17	6
SF:General Science Lab 01	4.9	20	6
SF:General Science Lab 02	4.6	19	6
SF:General Science Lab 03	4	18	6
SF:General Science Lab 04	4	18	6
SF:General Science Lab 05	4	18	6
SF:Classroom 05	4.1	18	6
SF:Classroom 06	3.8	17	6
SF:Classroom 07	4.1	18	6
SF:Classroom 08	3.5	16	6
SF:Classroom 13	3.2	15	6
SF:Classroom 11	4.3	18	7
SF:Science Prep	2.9	9	3
SF:Classroom 10	4.6	20	7
SF:Classroom 04	4.6	20	7
SF:Classroom 12	4.4	20	7
SF:LRC	2	10	4
SF:LRC	2.5	14	5
SF:Seminar Room	6	23	7
FF:ICT/Business Studies	5.8	21	7
FF:ICT/Business Studies	5.5	20	7



## APPENDIX C4 - TM49 A YEAR WITH A PROLONGED PERIOD OF SUSTAINED WARMTH (1976) RESULTS

Room Name	Criteria 1 (%Hrs Top-Tmax>=1K)	Criteria 2 (Max. Daily Deg Hrs)	Criteria 3 (Max. DeltaT)
GF:Conference	7	13	5
GF:Interview	8	13	4
GF:LRC	5	10	4
GF:Entrance	4.4	7	4
GF:SEN/Therapy	4.4	6	3
GF:LRC	6.2	11	4
GF:Med 1PO	2.9	7	3
GF:LRC	4.5	8	4
GF:Cent Stock (office)	3.5	5	3
GF:Food Prep	4.9	8	4
GF:Med 2PO	4.6	8	4
GF:Multi Mat Prep	1.8	4	2
GF:Ext Practice	5.5	9	5
FF: Small 1PO	1.5	3	2
FF:Seminar Room	6.1	11	5
FF:Med 2PO	1.1	3	2
FF:LRC 01	2.8	6	3
FF:Small Group	4.3	8	4
SF:Med 1PO	5.2	7	3
SF:SENco Office	5	7	3
SF:Med 1PO	4.3	6	3
SF:LRC	2	6	3
FF:Lrg 3PO	2.3	3	2
GF:2 Person Office	2.8	6	3
GF:Music Practice 01	3.7	6	3
GF:Music Practice 02	4.4	8	4
GF:Music Practice 03	4.4	8	4
GF:Music Practice 04	4.1	8	4
GF:Music Practice 05	4.9	8	4
GF:3-4 Person Office	4.3	7	4
GF:Sixth Form Social	0.9	1	1
GF:Sixth Form Study Area	6.9	13	4
GF:General Office	4.1	6	3
GF:Prep Man	3.2	5	3
FF:LRC 02	3	6	3
FF:2 Person Office	3.4	6	3
FF:IT Tech Room	1.8	3	2
GF:Kitchen	3.3	8	4
GF:Drama Studio	5.4	8	4
SF:LRC	3.5	7	3
GF:Sports Hall	0.6	2	1
GF:Main Hall	2.9	8	4
SF:Sml 2PO	4.4	6	3
SF:Lrg Group	6.3	9	4
SF:Sml 2PO	4.6	6	3
SF:Med 1PO	3.4	5	2
GF:Activity Studio	1.5	3	2
GF:Dining	0	0	0
GF:Textiles	7.2	13	5
GF:Food Studio	5.5	9	4
GF:Electronics	7.5	13	5
GF:Graphics	6.7	14	5
GF:Resistant Material	5.8	11	5
GF:Music Classroom 02	6.1	12	5

Room Name	Criteria 1 (%Hrs Top-Tmax>=1K)	Criteria 2 (Max. Daily Deg Hrs)	Criteria 3 (Max. DeltaT)
GF:Music Classroom 01	6.1	11	5
GF:Classroom	6.1	11	5
FF:General Art Room	5.8	11	4
FF:Classroom 07	6.7	12	4
FF:Classroom 08	6.7	12	4
FF:Heads Office	4.6	6	3
FF:PA Office	6.4	8	3
FF:Meeting room	3.8	6	3
FF:LRC 03	4.8	11	3
FF:Classroom 11	6.9	13	5
FF:Classroom 10	5.8	10	4
FF:Classroom 13	5.8	10	4
FF:Classroom 12	5.8	10	4
FF:Classroom 14	5.8	10	4
FF:Classroom 15	5.8	10	4
FF:Classroom 17	5.5	10	4
FF:Classroom 18	5.7	11	5
FF:LRC	2.8	6	3
FF:Classroom 16	5.5	10	4
FF:Classroom 01	5.7	11	4
FF:Classroom 02	5.7	11	4
FF:Classroom 03	5.5	10	4
FF:Classroom 04	5.7	11	4
FF:Classroom 05	5.5	10	4
FF:Classroom 06	5.5	10	4
FF:General Art Room	4.3	9	4
SF:General Science Lab 06	5.7	10	4
SF:General Science Lab 07	6.4	13	5
FF:Staff Room	4.7	9	4
SF:General Science Lab 08	6	10	4
SF:Classroom 01	6.3	12	5
SF:Classroom 02	6.3	12	5
SF:Classroom 14	6	10	4
SF:Classroom 09	5.2	9	4
SF:General Science Lab 01	7	13	4
SF:General Science Lab 02	6.4	12	4
SF:General Science Lab 03	5.8	11	4
SF:General Science Lab 04	5.8	11	4
SF:General Science Lab 05	5.8	11	4
SF:Classroom 05	5.7	11	4
SF:Classroom 06	5.5	10	4
SF:Classroom 07	5.7	11	4
SF:Classroom 08	4.3	9	4
SF:Classroom 13	4.4	9	4
SF:Classroom 11	5.4	10	4
SF:Science Prep	5	7	3
SF:Classroom 10	6	10	4
SF:Classroom 04	6	10	4
SF:Classroom 12	6	10	4
SF:LRC	3.3	6	3
SF:LRC	3.7	9	3
SF:Seminar Room	7.3	13	5
FF:ICT/Business Studies	6.9	12	5
FF:ICT/Business Studies	6.7	12	5

## APPENDIX D1 – INDICATIVE SECOND FLOOR PLANT ROOM LAYOUTS AND LOCATION PLAN

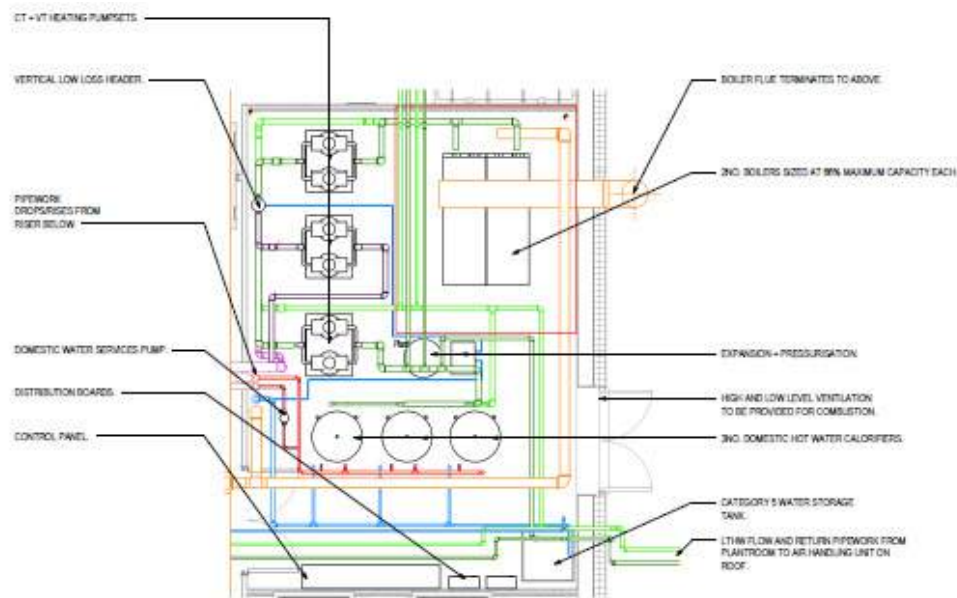


Figure D1.1 - Second Floor (44.5m<sup>2</sup>) Plantroom Layout – Turing House School

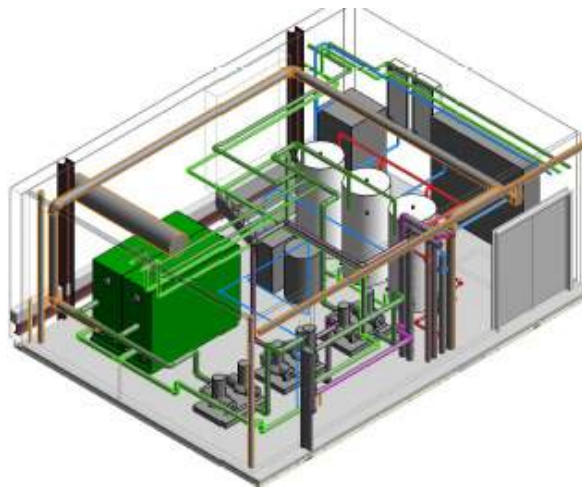


Figure D1.2 – 3D Second Floor Plantroom – Turing House School



Figure D1.3 – Second Floor Plantroom Location Plan – Turing House School

## APPENDIX D2 – INDICATIVE GROUND FLOOR PLANT ROOM LAYOUTS AND LOCATION PLAN

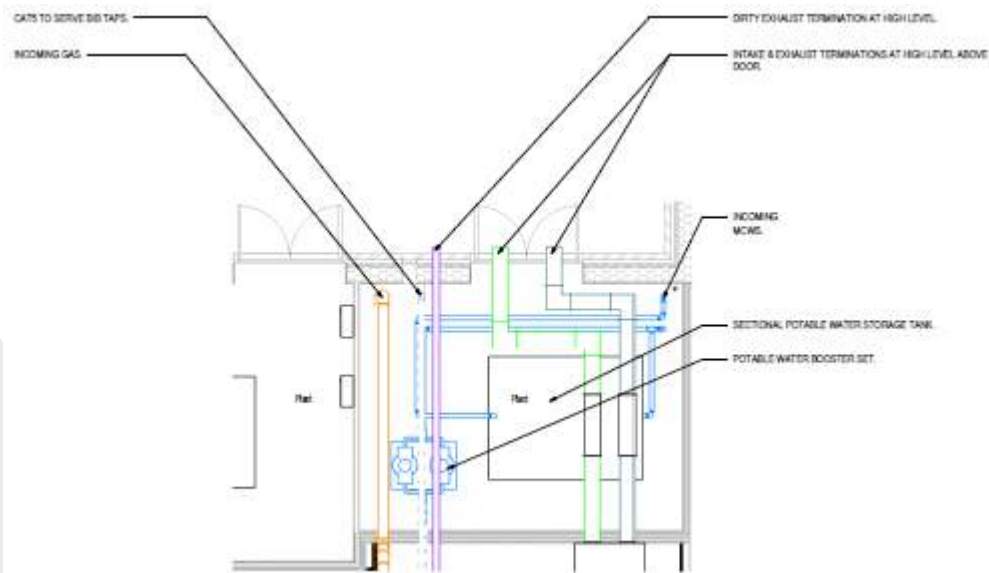


Figure D2.1 - Ground Floor (20.9m<sup>2</sup>) Plantroom Layout – Turing House School

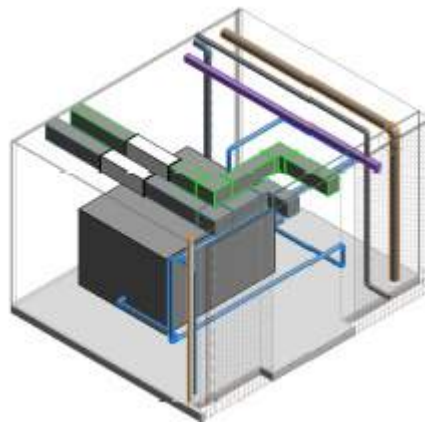


Figure D2.2 – 3D Ground Floor Plantroom – Turing House School



Figure D2.3 –Ground Floor Plantroom Location Plan – Turing House School