Objection to planning application 2021/2861/P, registered 03.08.2021
Spectrum House, 32-24 Gordon House Road
"Retrospective permission for existing plant and the proposed installation of 21.no plant units together with a three sided screen set behind a parapet wall."

05.09.2021

Dear Sir/Madam,

I would like to strongly object to the planning application noted above, as a direct neighbour of Spectrum House who will be very negatively impacted by the noise caused proposed huge increase of dozens of new cooling/heating units within metres of my top-floor bedrooms. My flat is located at point R2, so will be directly affected by the proposed increase in fan coil units (FCU's) at Spectrum House.

In summary,

- The Noise Impact Assessment is incorrect by not accounting for heating mode.
- Hours of operation of Spectrum House and it's air handling services are far beyond the stated 8am-6pm timeframe, so need to be assessed on the true hours of use.
- The screen at Location A should be made four-sided and to provide a substantial acoustic barrier from line-of-sight noise energy.
- The proposed use of "active cooling" and heating before any other passive or renewable steps on the Energy Hierarchy have been implemented goes clearly against all requirements in the Camden Local Plan 2017 (policies CC1 and CC2), as detailed further in the Camden Energy Efficiency and Adaptation SPD (Jan 2021), and goes against London Plan policies.

1. Noise Impact Assessment (NIA) significant inaccuracies

a. Heating vs. cooling mode higher sound pressure values:
   i. The acoustic calculations have been based upon data for cooling mode only.
   ii. The DAS report states "Currently the office units are heated by a mix of AC, electric heating or hot water radiators. The proposal looks to convert all the heating and cooling throughout the building to AC." (p.7, Design & Access Statement)
   iii. As such, the units will also be used for heating the spaces.
   iv. However, the sound pressure values for the Noise Impact Assessment calculations (all listed on p. 16-17 "Plant Noise Levels") are only using cooling values, and disregard heating values completely.
   v. Heating sound pressure values, which are also given by manufacturers in the same datasheets for each unit, are not addressed at all in the NIA – this is a huge flaw, since the uninusulated Spectrum House spaces seem to need a great deal of heating from autumn to spring, judging from the existing noise problem.
   vi. Heating mode for AC units is typically 3-5 dbA louder per unit for sound pressure, compared to cooling mode, according to the manufacturers' datasheets per unit.
   vii. This equates to a doubling of noise (3dB) or over 3x louder (5db), since sound is measured on a logarithmic (inverse exponential) scale.

viii. Clearly the calculations in the Noise Impact Assessment should be made based on heating mode, as these are the true (and significantly higher) values of how the units are proposed to be used.
ix. The -1dB achievement at point R2 (p. 26) where I live is therefore incorrect; I anticipate the calculation would fail at this location if using the heating values instead of cooling values; I expect the result at R1 would also fail.
x. The Noise Impact Assessment is therefore incomplete and invalid.

b. Hours of noisy operation far beyond 8am – 6pm
   i. The Noise Impact Assessment states that it assumes "It is understood that all plant will only be operational between 08.00am – 18.00 hours only." (part 6.10, p.22). However this assumption is grossly inaccurate, and in no way represents the true hours of operation of the mechanical plant.
   ii. A concurrent planning application sets out specifically how the current planning conditions currently theoretically restrict the gyms to 6am- 8pm use weekdays (application ref: 2019/4420/P). They are also requesting to extend use at weekends – on Saturdays by 1.5 hours earlier (to 7am) and Sundays 2 hours earlier (to 8am).
   iii. In this way the NIA report fails to assess the impact of actual use of Spectrum House long before 8am and after 6pm upon nearby residents. Tenants in Spectrum house include Be Military Fit (hours of classes: 6.30am – 8pm weekdays); F45 gym (similar).
   iv. Paying office tenants and users of Spectrum will require spaces that are heated/cooled in advance of customers/workers using the spaces, requiring FCU's to be operational well in advance of advertised opening hours. No restrictions on hours of use are noted on The Workplace Company website, so could extend into the night. So noise will inevitably occur well before 8am and continue well after 6pm.
   v. Therefore the Noise Impact Assessment should include these real "out of hours" periods of operation in its calculations, given this would be the true and accurate representation of how the building and mechanical plant will be operational, and therefore of the impact upon surrounding residents.
   vi. I ask that a Condition be imposed that the FCU's be programmed to only be operational between 8am – 6pm, in line with the assumptions presented in the Noise Impact Assessment.

c. Lack of control to prevent FCU's starting and stopping all night
   i. The existing units are most disturbing at night, when they are regularly running through the night, and often turning off and on. This has happened for several years in winter and summer.
   ii. The noise from the FCU's has caused significant sleep disruption to sleep to me and others in my household since I moved in to Clanfield, in 2013.
   iii. The current units seem to lack any control to prevent their operation "out of hours" – i.e. from 6pm through the night to 8am. They seem controlled only by internal thermostats, and as the building is uninsulated, they lose heat very quickly so FCU's are frequently starting and stopping (within minutes). As they are loud and noticeable, this is very disturbing to sleep.

d. 21 vs. 26 FCU's at Location A
   i. The design information shows that 21 of 26 possible positions will be filled with FCU's, with the remaining five to be installed "if needed in the future" (DAS, p.7)
   ii. There will be no obligation, nor way of checking due to the screen, if these extra five are installed in the future.

iii. The calculations should therefore be run with these 5 locations filled by 'average' power FCU's, to represent more realistically the long-term situation and impact upon nearby residents.

e. Noise complaints to Camden
   i. There have been noise complaints made to Camden against the existing FCU's, e.g. number 275805 (7th October 2020), made by me.

2. Proposals at Gordon House Road (Location A, Noise receptor location R2)

a. Noise from up to 26 new FCU's
   i. The selected location A for up to 26 new FCU's is about 15m away from my flat, at it's nearest point.
   ii. The FCU's are in most cases powerful, noisy models. They will be raised up from the roof surface on 'Bigfoot' stands, which raise the FCU's up by 300-400mm. As the FCU's themselves are typically 1m-1.5m tall, and the parapet is only 530mm tall, only the lower 10% or so of any given unit will actually be tucked behind the brick parapet.
   iii. The proposed screen is described as a "metal louvred screen", and that "there is no need for an acoustic barrier so the screen will be for visual purposes only" (DAS p.8). Therefore the screen as proposed will do nothing to mitigate the sound impact to nearby residents, in particular to my flat which is closest to this large array of FCU's.
   iv. This means there will be significant direct line-of-sight noise transfer from the array of FCU's to the walls and roof of my flat (see attached photograph showing proximity and building levels).
   v. I ask that the proposals include an acoustic-rated barrier to all four sides, and ideally also to the top, to reduce line-of-sight acoustic impacts on surrounding properties.

b. Visual impact of louvred screen
   i. The screen will be highly visible from the Haddo House estate and Glenhurst Avenue houses. It appears ugly and dull in comparison with not having such a screen, which would allow views of the sky and the angled rooflight.
   ii. In no way does this louvred screen make a positive contribution to the Conservation Area. The use of references of louvres at Tesco loading bays does not inspire any confidence – quite the opposite.
   iii. The DAS does not offer any insight into the level of visibility of the screen proposals, despite its' exhaustive 65 images of the existing condition taken in the nearby streets. It would be far more useful to have a selection of these, with the scale and appearance of the proposals shown clearly.
   iv. There is no daylight/sunlight impact assessment provided.

c. Visual impact of Keyclamp balustrade
   i. The balustrade appears to be proposed at the perimeter, fixed to the inside face of the parapet.
   ii. This position ensures its maximum visibility, and will be visible from all directions.
   iii. A keyclamp system is a chunky, purely functional, modular system, suitable for hidden back-of house areas but are not designed for visible locations such as a Conservation Area. This will not be a positive enhancement for the area, nor the Conservation Area.

iv. I ask that the balustrade be set back a long way from the parapet, or replaced with a more appropriately designed metalwork barrier.

3. To rear of Glenhurst Avenue houses (Location B, noise receptor location R1)

a. The retrospective application for these should not be allowed purely on the fact that they were also installed without consent. They are ugly and noisy, and an undoubted detriment to the amenity of adjacent residents.

b. The stated borderline compliance should be reassessed with the 'heating' mode with higher sound pressure values.

4. Energy use of air conditioning systems – incompatible with London Plan and Camden Local Plan 2017 planning policies

a. The existing Spectrum house buildings are uninsulated walls and roofs, with large poor quality rooflights, and perform extremely poorly thermally,. This means they loose heat quickly when cold outside, and overheat very quickly. They would be far better addressed by spending money improving the fabric of walls, roofs and windows before requiring additional heating and cooling.

b. <u>London Plan – Policy 5.4 Retrofitting</u>
   i. This strongly promotes policies for "the sustainable retrofitting of existing buildings", improving energy efficiency of existing domestic and non-domestic buildings.

c. <u>Camden Local Plan 2017 Policies</u>
   i. The proposals go against a number of Camden Local Plan policies, primarily CC1 (Climate Change Mitigation) and CC2 (Adapting to Climate Change)
   ii. Camden as a borough are ambitious leaders in such energy policy.

d. <u>Camden Policy CC1 – Climate Change Mitigation</u>
   i. Policy 8.7: The Energy Hierarchy describes the importance of prioritizing "lower cost passive design measures, such as improved fabric performance over higher cost active systems". It requires
   1. Use less energy
   2. Supply energy efficiently
   3. Use renewable energy
   Use of aircon units clearly fails at step 1, as improved fabric performance
   ii. In describing Resource Efficiency, Demolition and Retrofitting Existing Buildings, policy 8.18: "We will expect all developments, whether for refurbishment or redevelopment, to optimise resource efficiency by - enabling low energy and water demands once the building is in use." (p.253)
   iii. Policies 8.22-27 encourage connecting to decentralized energy generation to "lower transmission losses and carbon emissions" – and an existing decentralized energy generation network already operates in Gospel Oak. This should be used for heating instead of aircon units.

e. <u>Camden Policy CC2 – Adapting to Climate Change</u>
   i. In section "Cooling" (8.41-43) the proposals are clearly not in line with council policy.

ii. There is a clear policy against use of air conditioning in 8.42: "*Active cooling (air conditioning) will only be permitted where dynamic thermal modelling demonstrates there is a clear need for it after all of the preferred measures are incorporated in line with the cooling hierarchy.*"
No thermal modelling proving this has been included in the application.

iii. 8.43: "*The cooling hierarchy includes:*
- Minimise internal heat generation through energy efficient design;
- Reduce the amount of heat entering a building in summer through orientation, shading, albedo, fenestration, insulation and green roofs and walls;
- Manage the heat within the building through exposed internal thermal mass and high ceilings;
- Passive ventilation;
- Mechanical ventilation;
- Active cooling."
This is to say – all other design possibilities must be implemented before the final resort, of active cooling (air conditioning), is included in a proposal.

f. Camden Planning Guidance SPD: Energy Efficiency and Adaptation (Jan. 2021)

i. This recent document goes into more detail about implementing CC1 and CC2, and is very specific in its guidance that air conditioning should be only considered once all passive and renewable measures have been installed.

ii. In part 3. Making Bulidings More Energy Efficient, the SPD "Key Messages" include: " *Natural 'passive' measures should be prioritised over active measures to reduce energy use*" (p.5)

iii. Alternatives to air conditioning must be implemented before aircon can be acceptable: 3.3: "*Energy efficient (passive) design measures should be considered prior to the inclusion of any active measures to ensure that the energy demand for developments is reduced as far as possible. This helps to reduce the size of building services and energy consuming technologies needed in developments.*" (p.5)

iv. There is a requirement to demonstrate the consideration and use of passive measures for energy saving in a Design and Access Statement/Energy Statement – as 3.4: "*Applicants should demonstrate (either in their Design and Access Statement, or Energy Statement) how the following passive design measures have been considered and incorporated in the development.*" (p.5)

v. Diagrams e.g. Figure 1 (p.7) describe the use of insulation, shading, and passive cooling measures that should be considered.

vi. Thermal performance is addressed in 3.8, to insulate buildings to minimize energy loss.

vii. Avoiding electric heating is addressed in 3.13; the proposal is contrary to this.

viii. Efficient Ventilation and Cooling – 3.14 about how "*Local Plan Policy CC2 discourages active cooling (air conditioning). Air conditioning will only be permitted where thermal modelling demonstrates a clear need for it after all preferred measures are incorporated in line with the London Plan cooling hierarchy. The following passive measures should be considered first. If active cooling is unavoidable, applicants need to identify the cooling requirement and provide details of the efficiency of the system.*" (p.9)
The application clearly runs directly counter to the policy and does not demonstrate how any other preferred approaches could be incorporated to the building.

ix. Other energy-efficient technologies could be considered – improved control systems to minimize wasted energy, use of MVHR systems, and air-source heat pumps (5.14-16).
x. The targets for non-domestic Refurbishment for a 'Major' building such as this (p.36) require the "greatest possible reduction meeting Part L2B for retained thermal elements." So the building fabric should be aiming to meet Part L2B of building regulations – which it certainly does not currently do.
xi. Insulation is clearly addressed in 8.8-12, saying it should be installed for walls, roof and floor.

For these reasons I strongly object to the application and ask that be refused.

Regards,

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