Objection to planning application 2020/2612/P, registered 30.07.2020

Spectrum House, 32-24 Gordon House Road

Installation of 34x A/C condenser units on the east and west elevations and on the ground floor and roof level.

27.08.2020

Dear Sir or Madam,

I would like to strongly object to the current planning application (retrospective) noted above. The application should be treated as if it were put forward as a new application and assessed to current standards and on its merits. That these fan coil units (FCU's) were installed without authorisation in 2012 cannot count in their favour.

Strangely I was not notified by letter despite the building in question being directly adjacent to my flat, on the upper two floors at the western end of Clanfield, on Gordon House Road, part of the Haddo House Estate. I happened to find a notice on the lamp post on the street, just in time, but I fear many other affected residents of the Haddo House Estate and of Glenhurst Avenue will not be aware of the application despite its serious acoustic implications on several dozen homes around the North East and North West sides of Spectrum House.

I note that the applicant is F45 gyms, who also have recently opened a fitness gym in this location, noted for its intense 45 minute workouts – "45 IS THE TOTAL AMOUNT OF TIME FOR SWEAT-DRIPPING, HEART-PUMPING FUN" – in which one can burn 750 calories. Clearly this amount of fun will require a great deal of heat and sweaty air to be removed mechanically from the gym spaces. I note also on the website for this gym that weekday classes start at 6am and continue to at least 7.30pm; weekend classes start at 9am to around 11.30am. This schedule may expand in the future.

Following an overview description of my experience living adjacent to Spectrum House and the FCU's, these the main grounds for my objections:

- Errors of fact and assertion in the applicant's cover letter
- Errors of fact and flawed acoustic surveying in the application documents
- Intrusive noise leading to loss of neighbor amenity
- Negative visual appearance of the fan coil units
- Sustainability and energy use

Please refer also to the photos and graph markups in the Appendix.

1. **Overview**
    a. I purchased a flat at 8 Clanfield in late 2012 and have lived there since late 2013. Living spaces are located on the first floor, with bedrooms all located on

the second floor (two to the street, one to the rear). This is in locations R4 and R5 of the calculations of the noise impact assessment.

b. In 2013 the fan coil units (FCU's) in question were already installed on the North East side wall of Spectrum House and in operation.
c. From the start of living there, my bedroom has been the rear bedroom (facing onto the side of Spectrum House and the car park), most close to the cluster of two units in location 7 of drawing 4233/027, but also with direct line of sight of the nine further FCU's further to the north (locations 4, 5, 6 on same drawing).
d. From the rear bedroom I have always noticed a low bass humming of the fan noise especially at night both with windows closed and open.
e. My front bedroom is also adjacent to the passage between Clanfield and Spectrum House, closest to the roof cluster of two double and one single FCU's shown in Image 15 of drawing 4233/028.
f. The front bedroom experiences some background noise issues at night, in addition to some car noise from Gordon House Road.
g. There have not always been two FCU's in location 7 – I took aerial photographs in May 2018 which show only one FCU in location 7, nearest my rear bedroom.
h. The noise levels at night become significantly worse since an additional FCU was installed in location 7 sometime in early 2020. There also is far more intermittent switching on and off of units (or perhaps of one unit) causing my partner and I noticeable sleep disruption. I refer to the specification of this unit below.

2. Errors of fact and assertion: Cover Letter (Daniel Waney LLP)

a. A cover letter and follow-up email dated 10.08.2020 (by Daniel Watney LLP) and Noise Impact Assessment (by Mayer Brown, with accompanying plans) are the primary documents presented for justifying the need and down-playing the impacts of the FCU's.
b. There are several significant factual errors in these documents.
c. The cover letter states (p.2 para.1) that Spectrum House is not in a Conservation Area – which is incorrect. In fact, it is located in the Dartmouth Park Conservation Area, subzone 9 ("Lissenden Gardens"). Spectrum House is not noted as a negative feature. In assessing the application there is a requirement for "special attention to be given to preserving or enhancing the special qualities" of the conservation area, including both long views and nearby views where the FCU's are visible.
d. The cover letter also states (p.2 para.2) that all units are away from immediate boundaries and neighboring buildings. In fact, the 11 FCU's along the North East wall (to Haddo House Estate car park) extend c. 500mm over the property boundary, overhanging land which Spectrum House does not own. This constitutes trespass into the land of the Estate (Camden Council), and the FCU's should not be in these positions. Moreover, the FCU's are within metres of residences including Clanfield and those of Glenhurst Avenue.

e. The cover letter claims (p.2 para 2-4) that presence of the FCU's is "entirely unobtrusive", "largely screened" and "carefully integrated". In fact, the FCU's at roof level (SE corner) are not screened and are clearly visible looking west along Gordon House Rd. The FCU's along the NE wall are visually awful, with randomly located clusters of FCU's at different heights, mounted with no consideration and bolted down onto the most basic, cheapest Unistrut mountings (see photos in appendix). From each FCU comes a sprawling web of pipes, cables and switches covering the wall. It is clear there was no 'design' consideration whatsoever of FCU locations, mountings, or connections.
f. The route behind Clanfield through Haddo House Estate is a popular walking shortcut so the NE wall is seen by all those using this route. It is not only the view down the access route between Clanfield and Spectrum House that should be considered in terms of public vantage points and consequent loss of amenity.
g. The letter suggests (p.2 para. 8-9) that all five noise receptor locations were found to be compliant; in fact the Mayer Brown desk study found that location R1 was found to be non-compliant with noise thresholds.
h. This is notwithstanding the errors in the noise impact assessment noted below, which will affect conclusions for location R4 and potentially R5 (Clanfield).
i. As such the concluding comments are incorrect when they state that there has not been loss of amenity to surrounding residents or public from noise intrusion or reduction in visual amenity.
j. The follow-up email from dated 10.08.2020 argues with no evidence that no other alternative apart from air conditioning is feasible. This is addressed below (part 7 – sustainability)

3. Errors of fact: Noise Impact Assessment (Mayer Brown)

a. The locations chosen for background reference locations A1 and A2 are wholly unsuitable. A1 is very close to the area containing 11 FCU's and known to be the noisiest area (locations 9, 10, 11). Location A2 is on the rear wall of the KwikFit where high sound-intensity car mechanic work takes place all day; it is also directly adjacent to 4 FCU's (locations 12, 13, 14). These are not suitable locations for capturing 'typical' background noise – they could hardly be closer to some of the noisiest areas, and therefore provide background noise values which already include the impact of many of the FCU's.
b. A far more suitable location for A1 would be the central courtyard of Haddo House Estate; a better location for A2 would be e.g. one of the set-back blocks of the Haddo House Estate. For example, at location R5 I have never heard any noise from the KwikFit garage.
c. There are some important errors in the surveying of FCU's along the NE wall of Spectrum house, facing onto Clanfield and the car park of Haddo House Estate.

d. Table 2.1: Plant Inventory – Ground Floor (p.6) only notes 8 FCU's along the NE wall; in fact there are 11 as drawn in the plans/elevations. It seems that the cluster in location 5 (drawing 4233/027) have been omitted from the inventory, though it appears they have been included in the calculations for R3 at least. These three FCU's are a Fujitsu, and two different models of Daikin.
e. Table 2.1 also contains an error of the Daikin FCU type closest to Clanfield – one of the ones noted in the Inventory as NE Elevation(S). In fact this FCU is the type "AZAS100M7V1B" (manufactured 08.2019) as identified on the unit's ID badge (see Photo 4 in appendix). This model has a far greater acoustic output (especially at lower sound frequencies) – one of the highest of all the units installed on Spectrum House – compared with the model incorrectly assigned in the Inventory (RZASG71MV1).
f. This was the unit installed in early 2020, from which time noise conditions in Clanfield became much worse.
g. Additionally, the Fujitsu unit in Location 7 is of a different (approx. 50% larger) model than the others along the NE wall (see Photo 2 in appendix). It is listed as a "DC Inverter", although it is in fact an "Inverter", seemeingly model type AO*G30LFT. This model is more powerful and is significantly noisier. The correct model type should be identified along with it's acoustic properties (see Photo 3 for what I believe to be the acoustic curves for this model).
h. These Inventory errors will have a major impact on the calculations for locations R3, R4 and R5. And if 2 of 11 are incorrectly identified, there may be other important errors of FCU identification in other locations.
i. The Calculations results appendix ends mid-way through the calculations for R4, and does not present calculations for R5.
j. Due to errors in background noise recording locations and FCU identification, the noise impact assessment will need to be redone.

4. Errors of methodology: Noise Impact Assessment (Mayer Brown)

a. The noise assessment is only a desk study, rather than actually measuring the noise generated by the FCU's. This misses the only advantage of the units already being installed – that is, of being able to measure the actual noise impact in reality rather than just in theory.
b. I suggest that actual noise monitoring of the 5 locations be carried out over a multi-week period to allow for taking baseline recordings over say a week, and a 1-2 week recording period with the units on at a high level to simulate summer cooling loads.
c. The assessment takes it as a given that plant runs only from 8am – 6pm, however this is incorrect – the FCU's often run through the night. This is from my direct experience of trying to sleep near FCU's turning on and off during the night.
d. Because there is significant "out of hours" and night-time FCU noise, there needs to be revised Daytime figures and new Nighttime figures for "typical

background noise". Experience and the recorded data shows the there is significantly lower background noise at night, largely due to less traffic along Gordon House Road at night. However the noise impact assessment uses only a "Daytime" figure. While it is noted in the report (3.18) that 7am – 11pm officially constitutes "Day", it seems that the period 8am – 6pm has been chosen for assessment – which will result in a far higher background noise level. This is incorrect and also leads to misleading values for background noise levels.

e. Night time background noise values, from the graphs, would seem to be suitably at around 36dB (A1) and 42dB (A2) – see markups in Appendix. These values is hugely less than the used "Daytime" values (-9dB, and -10dB) – though as noted above are anyway in serious question because of the unsuitability of locations A1 and A2. For the current report, these would result in target values according to the Camden criteria of 27dB and 33dB (subtracting 10dB).
f. Given the applicant is F45 gyms which schedule intense fitness sessions (requiring cooling and air treatment) in this location starting at 6am on weekdays and 9am at weekends, the 8am – 6pm assessment period seems particularly disingenuous.
g. It is understandable that the applicant wishes to record the highest possible background noise levels as a starting point before subtracting 10dB as per the Camden assessment criteria; but tricks of assumption and calculation should be called out and avoided.
h. Given the ban on combustion engines from 2035, the background noise level from traffic can reasonably be expected to fall significantly from current levels. This makes it even more important to establish an accurately low existing background noise, as in the future the noise generated by the FCU's will be relatively greater compared to background traffic noise.
i. It is worth noting that noise dB levels are measured on a logarithmic scale, so an increase of +3dB is in fact a doubling of sound; often it is also said that +10dB is a doubling of perceptible sound. However as dB(A) (as opposed to dB) readings de-emphasise low frequency noises (see 4.n below), these low noises can reach very high levels. So what seems to be a small increase in the number of dB(A) decibels results in a huge increase in the amount of low frequency noise.
j. The methodology used in the desk study is rather opaque with its corrections for direction, unclear link between distance and reduction in dB – all subject to a high degree of interpretation (potentially optimistic). I do not find this methodology in BS 4142.
k. There appears to be no allowance in the calculations for there being solid walls behind both emitter and receiver – typically these conditions add +3dB at either end (for example, http://noisetools.net/noisecalculator2?source=[2.6,47,54,52,44,45,37,34,23]&receiver=[3.3,9]&barrier=[0]&walls=[1,1]&weight=1)

l. The 'Discussion' part of the report presents a number of ways for the 10dB below background threshold to be ignored. I suggest that in particular for night time noise, the 10dB should be adhered to.
m. If Spectrum House were a new development, it would be expected to achieve a LOAEL Green rating (10dB below background). But this planning application can only be assessed on the basis of as if it were a new installation – so should be required to target this same threshold of 10dB below background. No concession should be given.
n. As a note – while BS 4142 uses dB(A) values, academic studies have highlighted the problem of using dB(A) values, as it "intentionally de-emphasises low-frequency noise content". Compared with dB, A-weighted measurements underestimate the perceived loudness, annoyance factor, and stress-inducing capability of noises with low frequency components, especially at moderate and high volumes of noise. (Richard L St Pierre Jr and Daniel J Maguire, "The Impact of A-weighting Sound Pressure Level Measurements during the Evaluation of Noise Exposure" (paper presented at NOISE-CON, Baltimore, Maryland, July 12–14, 2004).)

5. Intrusive noise leading to loss of neighbor amenity

a. As noted in preceeding discussions, my experience over several years living at the flat in location R4-R5 is of intrusive noise, particularly at night time.
b. This noise has become worse since the installation of a loud, intermittent FCU in early 2020.
c. I can say from first-hand experience that I (and my partner) have certainly experienced many instances of loss of amenity (sleep) through noise disruption from the FCU's.
d. That I have not complained during my time living there so far does not discredit my experience. I had assumed that the FCU's had been legitimately installed and that I should have to "grin and bear it"; however now it is clear they were installed without consent, I am happy to be able to express my displeasure.
e. The noise level of the 2020-installed FCU at location 7 had already led to discussions in our household of how much noisier it had become and what we could do about it.

6. Visual appearance of the fan coil units

a. The appearance of the overall FCU's installation on the NE wall is chaotic, ugly, and totally ill-considered, as demonstrated in the photos in the Appendix. A range of different size units are mounted at different heights to the cheapest possible mounting framework. Cables are poorly fixed to the building (not in trunking); white plastic condensate pipes trail down to the floor.
b. Redundant mounting brackets, trunking, cabling, pipework and switches are left in place.

c. There is no screening to the FCU's I see, including those at roof level seen along Gordon House Road (see Photo 12) or those visible over the roof of Spectrum House (see Photo 13).
d. Overall, the installations are to the huge detriment of Spectrum House, and the general visual environment at the rear of Clanfield.
e. The area to the rear of Clanfield is a much-used pedestrian shortcut route, so this area is a public space seen by many more than just passing traffic.
f. The FCU's installation is a clear negative to the Conservation Area.
g. If this proposal were made as a new proposal (which in planning terms, it is) – there is no way this would be the proposal. The applicants would be required to use a designer to consider suitable locations, and organize them in a considered, aesthetically pleasing way, with some visual screening. This should be the requirement now.

7. Sustainability – energy use and carbon emissions

a. Minimizing energy use and carbon emissions is a key part of Camden and the Government's policies.
b. In this context, there can be no place for wasting energy on air-conditioning units and electric heating systems without first ensuring the built fabric of the building is well-insulated and minimizes unwanted heat gain.
c. The existing building has solid 9" brick walls, uninsulated. There is a thin steel roof, also apparently uninsulated, and huge fixed rooflights on the top floor. There is no shading to the extensive courtyard-facing windows, and the courtyard-facing walls are painted a very dark blue which will absorb far more solar energy. (see Photo 13). These thermal characteristics mean the spaces almost certainly get cold in winter and will overheat in summer.
d. However these are also among the easiest issues to address by installing insulation, adding shading, replacing rooflights, and repainting. For the main 2-storey part of the building around the courtyard, it seems to have been built in the 1980s and is a robust wall structure with concrete foundations that should easily be able to carry the minimal weight of wall insulation. After all, the wall is able to carry the large weight of the FCU units!
e. Retro-fitting of existing buildings to improve thermal performance is a very well-known approach to making drastic improvements to a building's energy use and quality of internal environment.
f. The applicant needs to demonstrate in detail which strategies have been considered, and which specific problems were encountered. No structural work to study the limitations of the existing structure has been presented, which suggests none have been commissioned.
g. To assume air conditioning is the only solution for this building is to excuse the wanton use of energy and carbon emissions.
h. If this were an application for a new building, there is no way it would be accepted as a suitable proposal on an energy/carbon emissions basis.

Final comments

As a final note, it is perhaps 'strategic' (or mere coincidence) that this application was brought forward during August when many local residents are away on holiday. It seems nobody has received letters of consultation and the whole process suggests a "cover up" where the applicant hoped nobody would notice.

I consider that the method of assessment of noise impact is flawed and should be re-done. There are many problems with the approaches taken, noted in detail above. The only advantage of the units already existing is that does allow actual noise reading to be taken rather than relying upon a desk calculation.

The application must be treated as if it were put forward as a new application and assessed to current standards and on its merits. That these fan coil units were installed without authorisation in 2012 does not count in their favour. The application should be assessed as if they had not yet been installed and appraised on whether they are a suitable solution to the problem.

In summary, the fan coil units do cause a great deal of loss of neighbor amenity due to intrusive noise, especially at night; the installations as a whole are visually highly objectionable; and they are totally against local and government energy use / carbon emissions policy. It must fail the planning assessment criteria on all these counts, and on these grounds the application must be refused.

Consequently, the FCU's and all their associated fittings must be decomissioned and removed.

Regards,

Francis Fawcett

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Appendix:

- Photographs 1-13
- Markups of noise thresholds A1, A2

Photo 1: FCU's along NE Wall of Spectrum House

Viewed from rear bedroom of 8 Clanfield, 25.08.2020

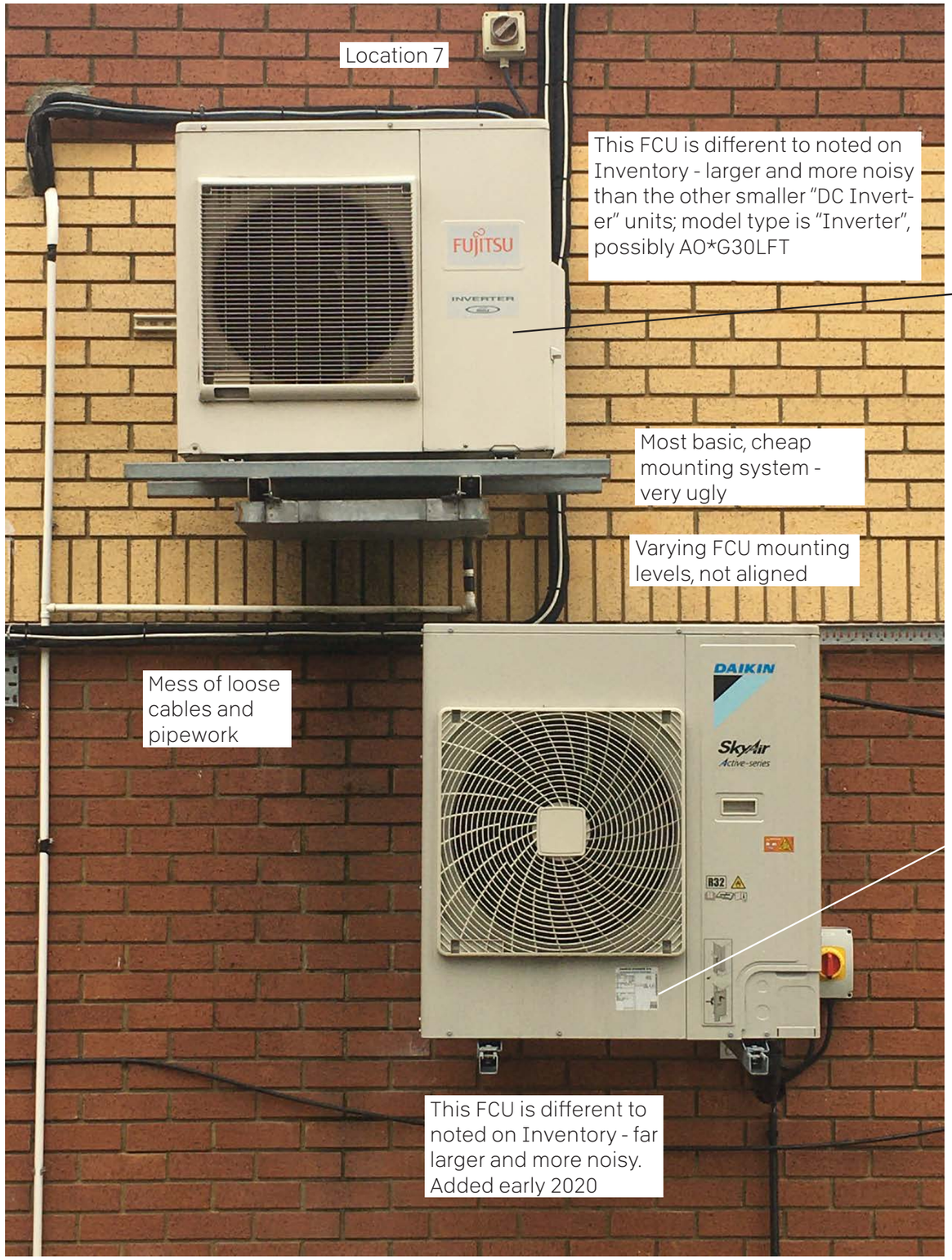


Photo 2: 2 large FCU's at Location 7

Both incorrectly identified on Inventory, 26.08.2020

Photo 3: Acoustic ratings

Fujitsu Inverter (Location 7)

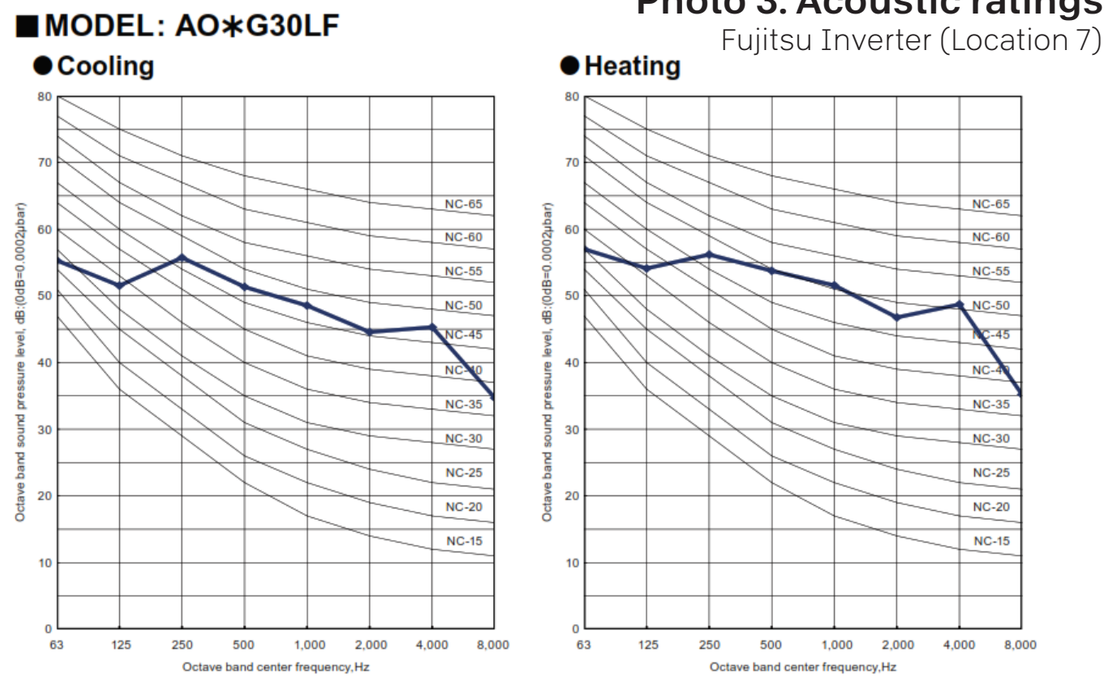


Photo 4: ID label

Unit incorrectly identified on Inventory

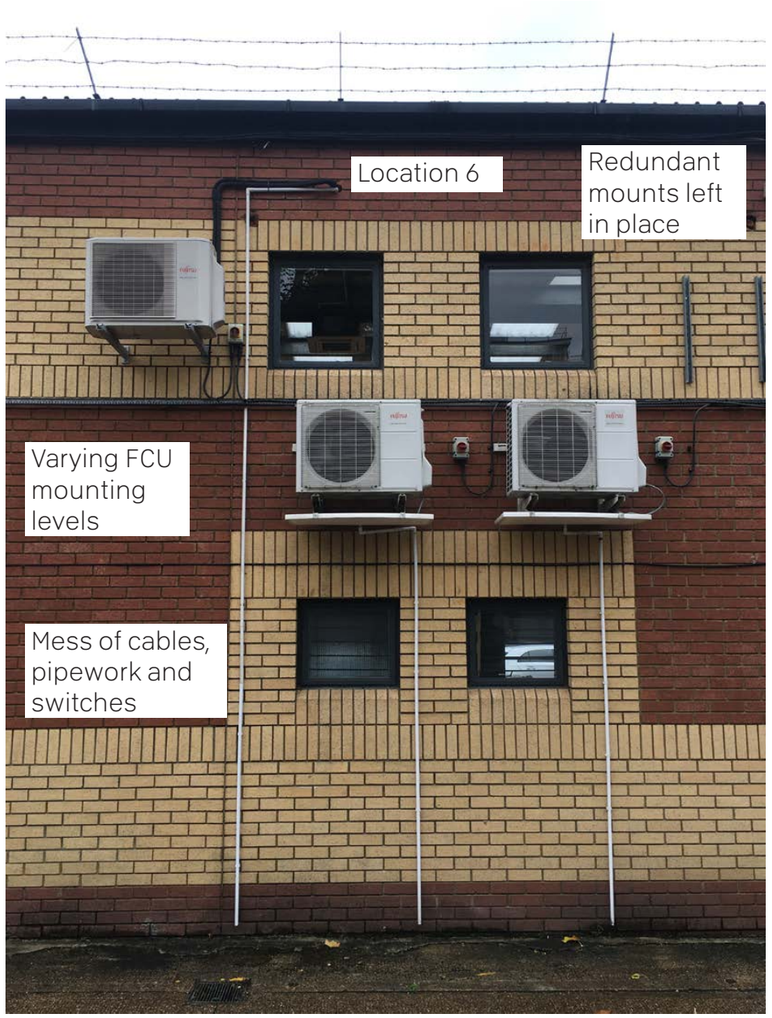


Photo 5
Location 6: Ugly installation of FCUs etc.

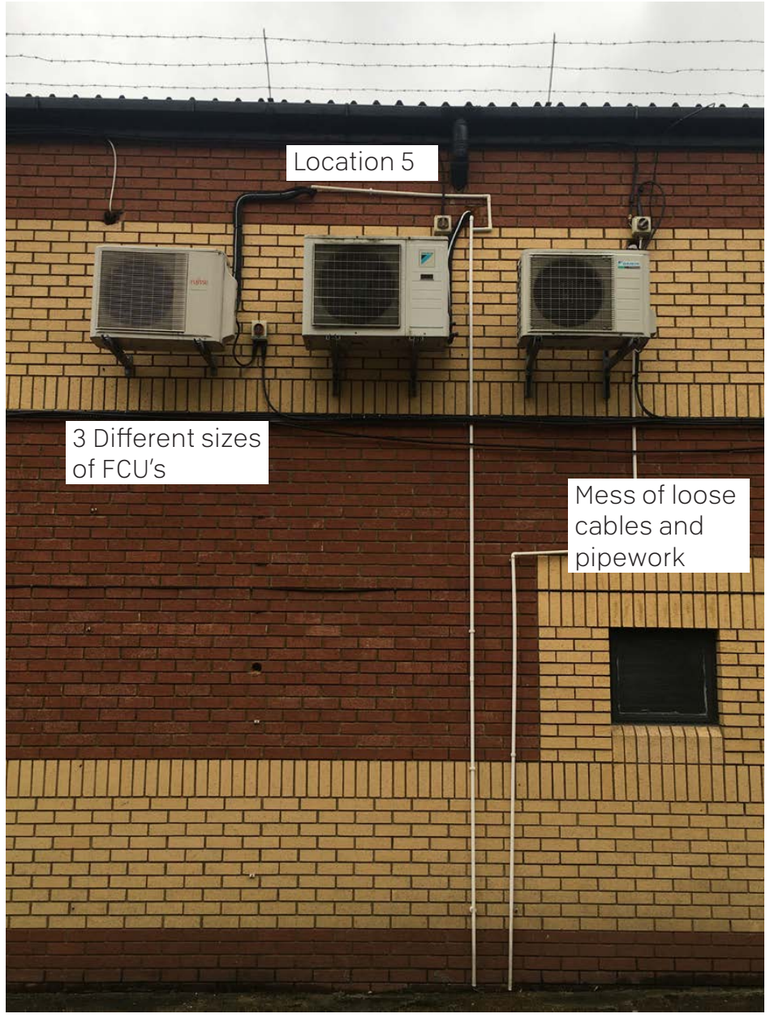


Photo 6
Location 5: Ugly installation

Photo 7
Location 4: Ugly installation, staining
All photos 26.08.2020

Photo 8: S end of NE Wall

Redundant items left in place; staining from previous FCU's, 27.08.2020

Photo 9: Ground level view of NE Wall
Visually incoherent and ugly, 26.08.2020

Photo 10: Ground level view to NE Wall, walking behind Clanfield

FCU's & associated pipes/cables have a negative visual impact on public walking route, 26.08.2020

Photo 11: Aerial view of Clanfield and NE Wall

Fewer FCU's at Location 7, taken 14.05.2018

Photo 12: Visible FCU's at roof level from street view

View west along Gordon House Road, 26.08.202

Photo 13: Visible FCU's at roof level; lack of shading to Spectrum House

View West over Spectrum House (from Clanfield 2nd floor), 27.08.2020

Time History Graph A1

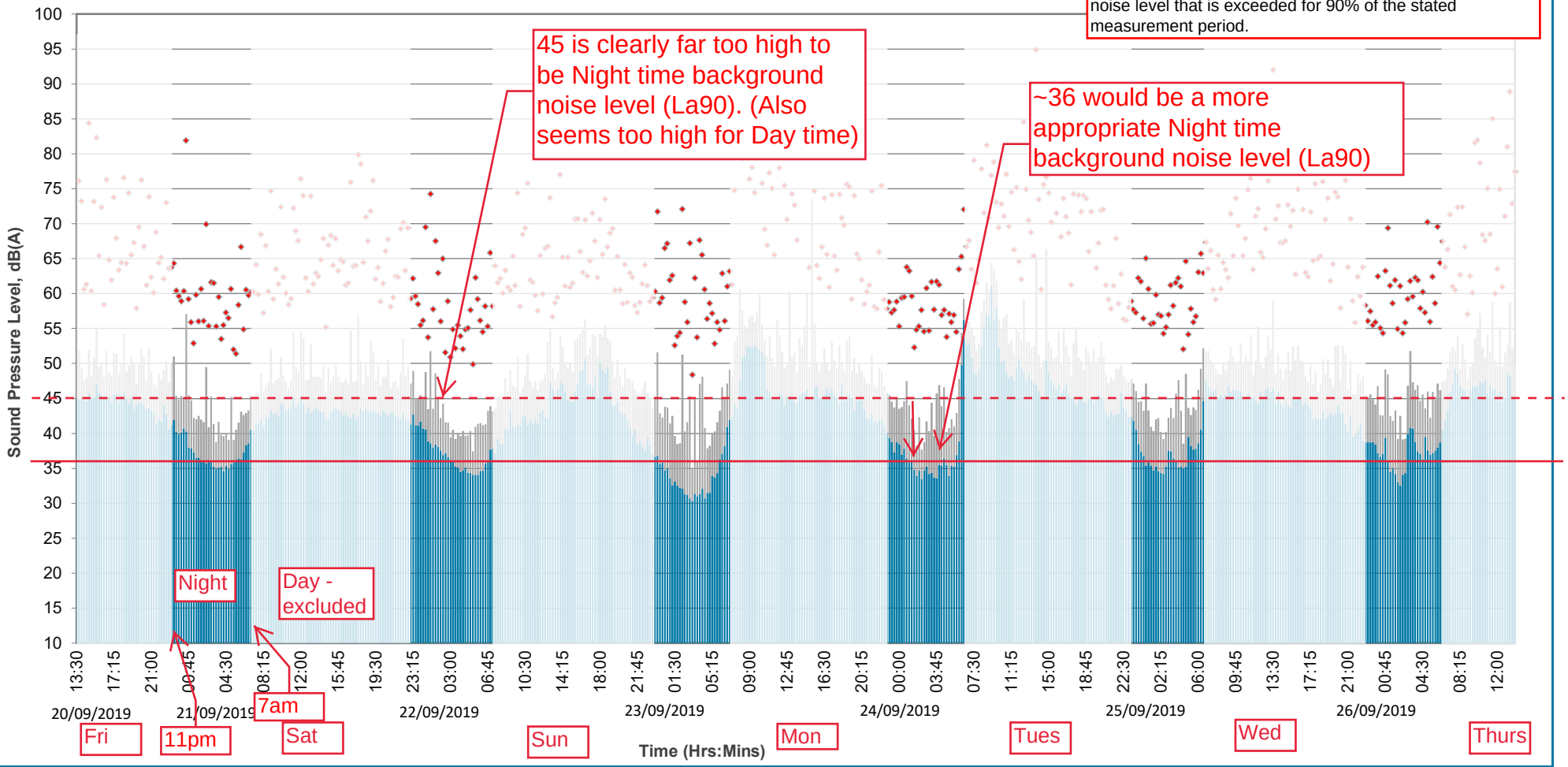
Night time background noise study (A1)

Project:	Spectrum House, Gospel Oak, London
Measurement Location:	A1
Survey Period:	20/09/2019 - 26/09/2019

Time periods:
Daytime: 07.00 - 23.00
Night time: 23.00 - 07.00

mayer brown

3.17: The 'Background Noise Level' (LA90) represents the noise level that is exceeded for 90% of the stated measurement period.



KEY: $L_{A90,15mins}$ $L_{Aeq,15mins}$ $L_{Amax,fast}$

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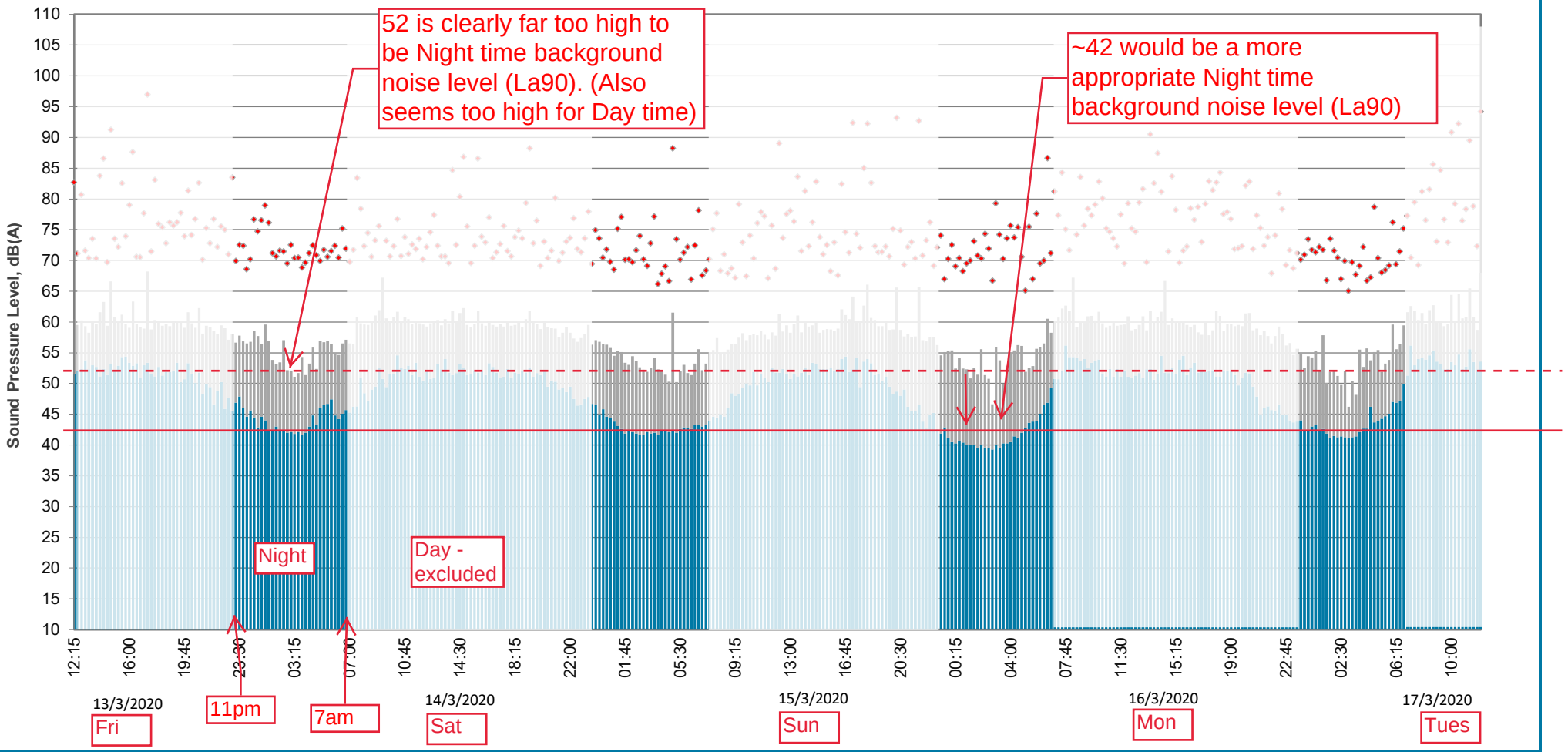
Time History Graph A2

Night time background noise study (A2)

Project:	Spectrum House, Gospel Oak, London
Measurement Location:	A2
Survey Period:	13/03/2020 - 17/03/2020

Time periods:
Daytime: 07.00 - 23.00
Night time: 23.00 - 07.00



KEY: $L_{A90,15mins}$ $L_{Aeq,15mins}$ $L_{Amax,fast}$

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