

STATEMENT C23 – Kurt Wolfgang

PLANNING APPLICATION No 20/04934/P ST CATHERINE'S PLACE EAST STREET FIRMSTONE

STATEMENT TO DEVELOPMENT CONTROL COMMITTEE A ON 4TH MARCH 2021 - OBJECTING

PLEASE NOTE that these objections don't reflect on the skills and competence of the architects and engineers, rather on the brief they have been given.

UNAFFORDABLE: Firmstone said they'd listen but they still "can't afford" affordable housing. Given that it's a basic requirement and one of the two main reasons for objections this is an insult to the community.

UNSUSTAINABLE: Despite all the guff about sustainability and lip service to zero carbon Bristol the proposed scheme will be to the minimum standards of the 2010 building regulations in terms of reducing energy waste - ie build as badly and as cheaply as you can get away with, so long as it looks ok.

The proposed materials and height mean embodied carbon - even "mid-rise" concrete or steel framed buildings are producing in the order of 25-30 tonnes of CO2 equivalent per flat to make, compared with 7-9 tonnes for timber framed (Bangor University for Committee On Climate Change). This isn't even mentioned or justified.

HEATING OPTION A - district heating if it comes in time

The heating system choice is left literally hanging in the air. The sustainability report says option A is district heating, if it's ready in time. There is a plant room (good) and there will be distribution pipes to flats (good). And there will be Heat Interface Units to "draw" heat into the flats. But then it's not clear whether there will be underfloor heating or radiators to transmit that heat into the homes.

But of course we know that the district heating network in Bedminster, based on current action levels, isn't likely to be ready in time. Using the old Bedminster Baths plant room to draw heat from underground water storage is brilliant, but would need a step change in investment and commitment (it's taken over a year just to fix a few ceiling tiles and some pipework in the pool itself)

HEATING OPTION B AIR SOURCE HEAT PUMPS - not planned & not necessarily so green

So what about option B? Air Source Heat Pumps for "each unit". These look like bolt-on air-conditioning units. Where are they going to go? The report - in the cut-and-pasted general section mostly on "nice options we aren't going for" says :

"The heat pump system is sited externally; either on external walls, in external compounds or within a ventilated plant room allowing air to be drawn over the evaporator part of the unit"

and then (after a not-very-nice picture) "ASHP units would need to sit in either an acoustically treated external plant enclosure or within a well-ventilated internal plantroom"

In reality the implication is that 180 of them will be bolted on the elevation. Which will be ugly and probably noisy.

But there are still 2 more questions. The report notes:

"that for every 1kW of electric in, 2.5kW of heat is generated (for ASHP) and up to 5kW (for some ground or water source heat pumps). This efficiency of a heat pump is governed by both the temperatures of the heat source and the heat emitter as shown..Heat pumps are, therefore, best

suited to low temperature systems such as underfloor heating. If radiators are used with heat pumps it is likely that they would be twice the as large as those used with conventional radiators."

So the "air source" heat pumps are the least-efficient sort - but the only ones you can easily use on high rise - and need underfloor heating or large radiators. It's possible that underfloor heating has been assumed, in which case there is just the question of the mounting and performance. Residents may be paying very high electricity bills in the near future if they buy or rent these flats.

OVERALL CO2 EMISSIONS OPPORTUNITY MISSED: If the buildings were built lower and using timber frame or CLT then that would save about 3600 tonnes of CO2 equivalent according to the study noted above (that would allow Mr Dandara to drive his 5 Series BMW over a million miles)

If the buildings were built to "Passivhaus" standards (as recommended by Committee on Climate Change advisors) they would use 30% of the heating energy these will.

And that would make it easier to find a neat centralised solution for powering the heating system, while waiting for the district heating. A ground source heat pump might be possible, particularly if the site wasn't so over-developed.

NO FACILITIES FOR ST CATHERINE'S HOUSE RESIDENTS: The revised scheme has a few supporting comments from people who have bought flats in St Catherine's House (rents now £1200 a month for a 2 bed) who say the new development will bring facilities. Yet the ground floor of St Catherine's House is even now being turned to flats instead of facility space, and there is nothing else proposed in the full application. The "outline" application for the middle section of the site only says "commercial and residential space"

FALSE DENSITY - The planning statement says the density is 175 dwellings per hectare which sounds okay by today's standards, but that's taking the whole site into account. If you just take plots 2,3 and 4 (the flats plots) then it's about double that density (estimated area 5000m2 to middle of Dalby Avenue, though might be a high margin of error as scaling off screen).

SUNLIGHT, DAYLIGHT, & OVERHEATING - The images and plans I have seen are based on midday midsummer conditions where shadows are shortest, and don't allow for any future new buildings in the middle of the site. In reality the courtyards will be dark nearly all the time, and the shopping precinct most of the time.

The lower flats will suffer massive lack of daylight (just look at the cross sections)

The overheating check looks at upper floor flats and says they can open the bedroom windows on summer nights for cooling. But some only seem to have full height french windows. Even if they can open those a crack (and they will be drafty 14 floors up) then that leaves all those flats on the ground floor, most of them right next to public footpaths, which don't even have high "fanlights" to open.

ARCHAEOLOGY - the opportunity to incorporate or display remains of the medieval water mill has been missed, in favour of getting more ground floor flats in.

SO please consider Bristol's population needing affordable housing, and our commitments to zero carbon - recommend refusal for the sake of the city and planet .