Brandon Heating Meeting
9th September 2021, via ZOOM

Attendees:

Sylvester Hilton (SHy Chair), Simon Holmes (SH), Tom Vosper (TV), Cllr Stephanie Cryan (SC), Des Vincent (DV), Marie Livingston (ML), Tom Lloyd (TL Resident)

Apologies:

Cllr Alice Macdonald, Dave Hodgson, Paul Gathercole, Bola Odusanya, Cllr Eleanor Kerslake (EK)

Meeting opened by Sylvester, welcome and apologies given.	Lead
1. FEEDBACK FROM THE METALLURGY / ANALYTICAL REPORT **Riser Pipes:** Sectional cut outs done from every other floor, reports indicate that they are still in serviceable condition, it would be difficult to progress with a riser replacement contract. A recommendation was to look at doing cut outs at the top middle and bottom on the other blocks based on evidence that Cornish shows it is fine verifying that it is not unique to Cornish. TL agreed. **Hot Water Cylinders:** The reports show it is heavily corroded and has deposits in the hot water cylinders. SHy to share comments received from TL with colleagues. TL previously shared that other residents have had their hot water and radiators replaced in the past. The samples we took shows the levels of deterioration and deposits. TL has read the report and agrees that we need to focus on bits of system that are corroded and need replacing. OCO have replaced the radiators and cylinders but he is curious to know how many hot water cylinders have been replaced on break/fix over the past 5 years. TLs radiators were replaced a year ago as there were issues of being not hot enough, he would like to know if Southwark are planning to do a complete blanket switch of all the radiators or just those needing replacing. SH replied that from the report analysis that established the failings of poor quality we can run the report determining how many were replaced. We can certainly get the call out and replace the others to establish the percentage. We will expect to see more failures as time goes by. TV: We should be able to find the records of what have been replaced. There is a document with a list of different elements of the heating systems and the life span for each. There would be a cut-off point of replacing for the sake of it. If something is 1 year old it should not be discarded. TL: My hot water cylinder was changed 5/6 years ago but another upstairs was replaced 2 years ago, I would like to know the data analysis. SH: There is always potential for data being loaded incorrectly, we would need to do validations out of prudency. If the project went ahead and it was decided not to replace an item this would still need a survey to establish that the information is correct. (*now recording)* TL: We have a hot water cylinder and a heat exchanger within it which is filled by a cistern within the property, we have low water pressure on the hot water side and on the cold water side we have a tank on the roof so there is a significant in-balance between the hot and the cold. • If you plan to gut out the whole workings of the flat, is the hot water cylinder and the heat	SHy SH

exchanger the best solution on the market today, has there been improvements since what we have was put in 30 years ago and is there a solution you could put in which would address the pressure balance problems we have between hot and cold? Many residents have privately got a plumber in and installed a heat pump.

- There is an inherent problem in our current design, is there a better solution than doing a like for like replacement?

TV: Yes. You mean a booster pump that increases the pressure on the hot water… If we installed a modern system we may get rid of the cylinder altogether and have a heat interface unit, this has a plate heat exchanger in it which transfers heat much faster from the cistern water into the domestic water which comes out of the tap which then becomes a combi boiler, the hot and cold water will have exactly the same pressure because it has gone through the heat exchanger to absorb heat. The advantage is that you never run out of hot water because it is not stored locally, the other advantage is that you get a lower return temperature. The water comes from the plant room up the building in the flow pipe, through the coil and down the return pipe (it may lose 5-10 degrees). The HIU absorbs a lot more heat out of the water so when it goes back into the return it is much cooler which is better for efficiency terms meaning its doing less pumping. The downside within HRU is that if you have a system failure you have no stored back up. Some cylinders will have an electric immersion where you can click a switch in the airing cupboard and that will heat the top half of your cylinder with electricity like a kettle to provide local back up if your heating system is temperamental. We have done research to see if you can have the best of both worlds and never run out of hot water if you have a reliable system, if it is an unreliable system and you want a back-up which the cylinder allows an electrical immersion as back up, with an HIU it is a little harder but we are looking at different systems we can have. This might be a small inline electric heater which sits underneath the HIU would then come one and allow hot water to come out of the taps but this would not run very fast. We are doing research on back-ups. The HIU is the modern solution to all heat networks rather than cylinders.

TL: What about the physical size and footprint of the HIU versus the cylinder?

TV: The HIU is a lot smaller, you get more storage and shelving space back if you take the cylinder out and put an HIU in. They are usually smaller than a cylinder.

TL: If the majority of the cylinders are beyond serviceable age it would be a good thing to install the most reliable and greenest product, I would like to explore this if we replace cylinders and radiators.

TV & TL agreed to speak off line re the knock on consequences. T&T

SHy: We have come to conclusion on riser pipes and discussed hot water cylinders and radiators.

2. FEASIBILITY & LESSONS LEARNED

SHy: For future projects we need to do the sectional cut outs to learn from that exercise to give an indication in terms of the condition of the pipework which will in turn get factored into any future feasibilities that will form the basis of future feasibilities that will be produced and will commission those briefs to prospective consultants to say that it is essential to do the sectional cut outs which will give us an indication of the condition service of the life and justification for any future replacements in the future, this is a lesson learned.
(*Welcome to Cllr Steph – SHy updated her of what had been covered)*

SC: informed TL that she had read both of his letters.

SHy: The exercise has been well worth undertaking and will factor the items into a lessons learned process which we will do for future heating schemes as and when progressed. TL previously mentioned the acoustics and the noise from the plant room, we indicated that there would be no

point testing at the moment as the heating is in Summer mode so when heating gets turned on in Oct we can make an assessment of the noise which can be part of a process in procuring and analysing any potential acoustic consultant. We will wait until Nov when it is up and running and functional, we will make an assessment and take it from there. TL said he is fine with this as long as they have an input into who the Consultant is, preferably an independent person who has never worked with Southwark based on previous experience.

TV: I read acoustic report and do not think we did all the recommendations made on the first acoustic survey, eg rebalancing of the system in the blocks to have the correct amount of flow, the anti-vibration mounting plant for the pumps in the plant room, the anti-vibration pipe connections in the room etc. The survey didn't appear to cover Southwark in glory it clearly wasn't written by a company in our pockets, it didn't really criticise anything. I think we need to do it and assess whether we still need another survey, if we do the recommendations we may find that we don't need to do another survey if the problems go away.

TL: I agree and would be happy for you to complete the recommendations and we do another evaluation.

SHy: We will relook at the recommendations of the acoustic report and feedback, especially the anti-vibration to reduce the noise, I will give you an update by or before the next meeting.

TL: Just be aware that the heating pumps installed had been throttled to not run more than 40% of their capability. If you are to do an analysis you need to test the system at 60, 80 and 100%. The problem started as soon as we got the new pumps. I think they just fitted an incompatible component into the heating system. Get the heating back on, follow recommendations and test above 40%. The problem manifests itself in each tower block.

TV: A lot of it seems to do with the frequency of the vibrations rather than the amplitude of the noise, suggestion is because the human hearing is more sensitive in that frequency band when you turn the pump up, it goes from 125 – 250 hertz which is more noticeable to human hearing spectrum. As you turn up the pump speed you increase the frequency of the noise going through the pipes. There is a clear link between the pump operation and the noise experienced.

TL: I have a WhatsApp group of both residents and one for leaseholders and have done lots of work on the estate because of these problems. I have connections and can find you the people to show where the noise is more evident than others. I can help you with this.

SHy: Thank you Tom we can use that information. We will revisit the recommendations of the report and provide you with an explanation by next meeting.

Recap:

- Re riser section, we will carry out those on the other blocks. We will do top, middle and bottom.

There is a process in place for hot water cylinders and the radiators and the information that we now have from the recommendations of the acoustic report.

TL: The risers run up the building and bring in heating and hot water at ceiling level then drops down into the radiators, if there is any contamination that messes up heating systems, everything would drop into the radiators. If you were to replace all rad it would be good to disconnect every rad from the systems and only reconnect after the radiators have been replaced otherwise you would circulate the crud from the old radiators back in the clean radiators. A rad replacement scheme needs to be thought about to avoid this.

TV: The hot water is generated instantaneously in an HIU. You can either have direct connection or an indirect connection with another heat exchanger at the entrance to the property. If radiators were exchanged in 1 property with an HIU these would be fully protected from any crud, each

property would become its own heating system. The pro is that if you have water quality issues with your neighbour, they don't become an issue in your property, the downside is that the Council has less visibility and control of the water quality within the rad overall. If we put treatment in the water in the boiler house it will trickle its way to all the radiators but if you have the indirect version of HIU then you cannot do that so we would have no visibilities of what is going on with the radiators. TL: Wouldn't a heat exchanger on every flat add to the costs for us? TV: Yes, probably only by a couple of hundred pounds per property. TL: Stephanie, I have put a few questions when we last met re the effort we have put in and the money we have saved Southwark, I would like you to respond separately outside of this meeting.	
3. Any Other Business • ML to circulate minutes and arrange Zoom for the next meeting. • Cllr Alice MacDonald will no longer be included in the invites as we have two Cllrs attending.	ML
Date of next meeting: Thursday 14th October, 3.00pm	