

**Minutes of Ledbury Estate Residents Project Group Meeting
24th October 2019**

Attendance

RPG

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|---------------|----|----------------|----|
| Sue Slaughter | SS | Shelene Byer, | SB |
| Patrick Goode | PG | Nicole Bailey | NB |
| Toby Bull | TB | Jeanette Mason | JM |
| Eileen Basson | EB | | |

LBS

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|-----------------|-----|---------------|----|
| Mike Tyrell | MT | Ferenc Morath | FM |
| Sharon Shadbolt | SSh | Paul Thomas | PT |

Others

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|------------------|----|-------------------------|
| Charles Hingston | CH | Calford Seaden |
| Jonathan Hutton | JH | Calford Seaden |
| Alice Blair | AB | Arup |
| Jenny Pattison | JP | Arup |
| Neal Purvis | NP | Open Communities – ITLA |

Observer

Danielle Gregory DG

Apologies for Absence:

RPG Members: Glenn Holmes

1. Introductions

1.1 Those present introduced themselves.

2. Structural Engineer Report Bromyard

2.1 MT explained that there will be an urgent report to the Council's Cabinet on Tuesday 29 October that includes the recommendations that Arup are making in their report on Bromyard. The recommendations from Arup will need to be costed, and the recommendation is that when that is complete, the options appraisal process is reopened to take account of the revised costs. The Arup Report and Cabinet Report were sent to RPG members and were available to all residents and ex tenants of the estate.

2.2 AB explained that the report included the conclusions from the detailed investigation works that Arup had done at Bromyard once the block was empty. They had looked at the building in three parts, the two residential wings and the stair and lift core. They are connected by a bridge. There was not significant change in the assessment of the residential area since the report in November 2017. The investigations of the empty block show that the lift and stair core do not meet the current regulations.

- 2.3 The 2019 report had looked at how well connected the buildings were to their foundations. There was a limit to how much investigation could be carried out without jeopardising the buildings.
- 2.4 The works proposed to strengthen the buildings are in three parts. One is to building a steel frame that ties in the top 8 floors of the building, hung from the roof to protect in the case of explosion; two is additional strength in the floor slabs; three is additional foundations at the base of the building.
- 2.5 AB explained that Arup had looked at a variety of different ways to add to the structure of the stair and lift core. The solutions considered all made the stairs or the lift shafts narrower, and they would become unusable. They had come to the conclusion that it is not possible to remediate the stair and lift core but that it would need to be demolished and rebuilt.
- 2.6 PG asked why the 2017 report had not mentioned the stair and lift core, but that is was being considered now? The Arup Report of Hartop and Lannoy Point in Hammersmith and Fulham had not considered the stair and lift core. AB replied that the report on the blocks in Hammersmith and Fulham had been commissioned by Building Control and focused only on the residential parts of the building. Arup had not looked at stair as part of the 2017 report because they had been in use at the time and the focus of concern had been safety in the residential areas. NP noted that the 2017 report did not mention stairs and lift cores as an area for concern or further investigation.
- 2.7 PG asked if Arup's views of the wind load on the block. AB outlined that the codes in place when the block was built in the 1960s were lower standards than expected from codes now. To give the building a 50 year life they would have to conform to the current codes and standards. Arup had thought that the façade helped bear some of the wind load. Further investigation showed this was not the case.
- 2.8 PG asked whether a raft foundation was better than piled. AB responded that Arup had not looked at the foundations in the previous investigations. The issue was how the building was fixed to the foundations.
- 2.9 NP asked why floors were not noted as an issue in the 2017 report but now work was recommended to strengthen the floors. AB explained that the 2017 report looked at the junction between the floors and the walls. The investigations in this report included an assessment of the structural performance of the floors.
- 2.10 AB outlined that the strengthening recommended in this report was with steel beams, rather than straps that had been recommended in the 2017 report. The beams would line up to provide strength through the floorslabs.
- 2.11 NP asked why the proposed solution was different. AB replied that Arup had been able to do more detailed investigation and had more time to consider different options for remediation.

- 2.12 NP asked if the standard required was for a 20 year life, rather than a 50 year life, would this mean less works were needed. AB replied there would be no difference in the works recommended.
- 2.13 PG noted that the first steel framed buildings were built in 1880s and some were still standing. AB replied that the design was to meet the current codes that would give the buildings a 50 year life. They would very probably last longer than that. The main issues with the building was not the concrete, which is sound, but is the fixings between the floors and the walls.
- 2.14 JM asked if residents had been living in dangerous buildings. AB replied that the risk of disproportionate collapse had been mitigated by the removal of the gas supply and the use of the 24 wardens. The risks had been mitigated by the measures that had been put in place.
- 2.15 PG asked what the 17 Kilonewtons per square metre limit means in practice? AB replied that this was the standard set following the analysis done after the Ronan Point gas explosion. A building of this height is expected to withstand this pressure if there is no gas installed in the building. It is half the strength needed in buildings with a gas supply.
- 2.16 NB asked went kind of event would lead to this kind of pressure on the building? AB outlined several risks from the code include explosion from bottled gas, vehicle explosion near the block, very high winds, an electrical substation in the block. Many of this risks had been mitigated, with the banning of gas in the blocks, vehicles not being able to park close to the block, there is no electricity substation in the block.
- 2.17 JH reported that it would take Calford Seaden a month to produce a costing for the new works proposed by Arup to update the option appraisal from 2018.
- 2.18 TB asked if the foundations of Bromyard were connected to the low rise. AB made clear the foundations of Bromyard do not connect to the low rise foundations. The foundations had been investigated by digging a trial pit. The foundations of Bromyard are well below the surface of the ground outside the block. They are flush with the building line below the surface of the ground. The raft foundation does not extend beyond this.
- 2.19 AB outlined that the radar machine to check the depth of reinforcing rods in the foundations could detect them to a depth of 100mm. They only way to find out how deep the reinforcement between the building and the foundations goes is to break out some of the concrete. This could compromise the stability of the building. The recommendations had been based on what had been observed.
- 2.19 SB asked if anything in the assumptions could change the recommendations made by Arup? AB drew RPG attention to the further work needed in 5.3.4 on p.36. A geo technical (soil) survey is needed to make sure the soil conditions are what has been assumed. Some joints have not been well built, and are packed with sand (rather than sand and cement) and further investigation is needed to see if this is an issue throughout the building. The jacket around the wall is the solution suggested

to deal with this. More investigation is needed in the façade panels. These would have to be done before any work is carried out to the block.

- 2.20 AB explained that walls would have to be removed to install the steel beams and it would need more work to decide how to do this in practice.
- 2.21 JH noted that the recommendation is that the steel beams would be 1.2m lengths to get them into the building. They would weigh 103Kg. There would need to be more work on how to carry and position these materials.
- 2.22 PG asked whether the solution is building an exo skeleton to support the existing masonry building. AB replied that the strengthening is to carry the loads internally and take it down through the building to the foundations.
- 2.23 TB asked if the problem was the materials or the workmanship. AB replied that the issues were due to the connections between different elements of the building and the need to comply with the code for LPS buildings above 6 storeys.
- 2.24 NP asked how the stair and lift core could be rebuilt. AB explained that the work would need to be done carefully, and that the stair and lift core could be separated from the residential part of the building without compromising the structure of the residential part. It would be demolished from the top and built up from the bottom.
- 2.25 DG asked what effect the proposals would have on the internal design of the refurbishment option developed by the RPG and supported by residents. SSh replied that this is not yet clear and the RPG would work through the impact of the recommendations to understand the effects.
- 2.26 TB asked if the re-opening of the Option Appraisal would be only for the towers. MT replied that the area included in the Option Appraisal would be the same area as considered in 2018.
- 2.27 TB noted that major works were programmed for the Low Rise homes on the Ledbury Estate in 2023/24. That looked like a time when there could be work going on in the towers.
- 2.28 PG noted that the cost of the works in Hammersmith in Fulham to strengthen two blocks there was £60m.
- 2.29 MT asked the RPG to put together a list of further questions to Arup and explained that the costs put together by Calford Seaden will be brought back to the RPG for consideration to consider what this means. CH noted that some costs included in the last version of the Option Appraisal, e.g. refurbishment of lifts, could be removed and replaced the costs resulting from Arup recommendations.
- 2.30 PG noted the commitment from the Cabinet Member for Housing in 2018 that the money was available to refurbish the towers with a right to return for tenants and leaseholders.

N. Purvis 25.10.19.