Summary Overview of Specialist Inspections
Four Estates - Isle of Dogs

for

One Housing

of

Alice Shepherd House (St John's Estate)

Contents

1.0 Introduction

Following the completion of the Four Estates stock condition survey and presentation of our report to residents and stakeholders in March 2018, Hunters were instructed by One Housing in August 2018, to provide a summary report for each of the individual blocks where a specialist survey had been undertaken.

The specialist surveys were targeted to include the high rise blocks only as these blocks are generally different in construction, (together with their building services) compared to the medium/ low rise blocks across the estates, e.g. construction is generally concrete and they typical include communal services such as heating/ water/ lighting/ Fire Alarms and lifts. This is the reason specialists were asked to advise on their condition in support of the overall stock condition survey.

The type of work the specialist consultants looked at included:

1. Mechanical and Electrical engineers (MCCE Ltd) – Surveys typically covered, communal electrics, heating and pipework, waste and rainwater pipes, lifts and below ground drainage systems.

2. Structural Engineers (Kirk Saunders) – Investigated the building structure (walls and floors) and concrete panels to assess their condition.

3. Refuse Chutes (Hardall UK) – They are a specialist in refuse chute furniture e.g. refuse hoppers and bin chute areas, assessing their current condition and performance.

This report summaries the detail of each of the above specialists.

Everything contained within this block report was included within the Hunters final report together with the costs, which were presented to One Housing, their customers and Stakeholders at the individual estate exhibitions held in March 2018.

The full detail of these summaries is included within the individual reports provided to One Housing and stakeholders and it is these reports that must be read to obtain a detailed understanding of the work required and their recommendations.

Specialist reports were provided for the following seven estate blocks with a separate report by CPT of the Sumuda estate underground car park:

Samuda Estate –	Kelson House
Barkantine Estate –	Bowsprit, Knighthead, Midship and Topmast Point Blocks and Kedge House
St John's Estate -	Alice Shepherd House

2.0 Summary of Specialist Observations and Associated Costs

The surveys include costs for replacement only and not regular daily repairs. These repair costs were included within One Housing Groups day to day budgets and cyclical works programmes included on the exhibition boards at the open evenings and form part of their wider options appraisal of the estate costs.

The table below shows the summary of the specialist costs inclusive of preliminaries (expenses that will be incurred during the construction, which are directly related to the running of the project by the contractor. Exclusive of professional fees and VAT). These cover the summarised work rereferred to, under the individual specialist consultant's headings below.

Block Costs by Specialist (all see Appendix A at the end of this block report).

Specialist	Component	Year 1	Year 2	Year 3	Year 4	Year 5	Yrs 06-10	Yrs 11-15	Yrs 16-20	Yrs 21-25	Yrs 26-30	Yrs 1-30
Refuse Chutes	Refuse Chutes	8,790	0	0	0	0	0	250	0	0	0	**9,040**
M&E	Heating System (No Communal)	0	0	0	0	0	0	0	0	0	0	**0**
M&E	Water Distribution Services	0	0	675,000	0	0	0	37,500	0	0	0	**712,500**
M&E	Soil & Waste Services	1,875	0	111,000	0	0	0	0	0	0	0	**112,875**
M&E	Ventilation	45,000	0	0	0	0	0	18,750	0	0	0	**63,750**
M&E	Fire Alarms (None)	0	0	0	0	0	0	0	0	0	0	**0**
M&E	CCTV system	0	0	0	0	12,500	0	0	0	0	0	**12,500**
M&E	Door Entry	0	0	0	0	0	0	0	22,500	0	0	**22,500**
M&E	Communal Wiring	0	0	0	0	0	0	540,000	0	0	242,500	**782,500**
M&E	Communal Lighting	0	0	0	43,750	0	0	0	0	0	0	**43,750**
M&E	Lifts	10,625	0	0	0	0	0	225,000	0	0	0	**235,625**
Structural Engineer	Structural Frame	2,250	0	0	0	5,700	7,500	7,500	7,500	7,500	7,500	**45,450**
Structural Engineer	External Panels	3,750	0	0	0	9,500	12,500	12,500	12,500	12,500	12,500	**75,750**
Structural Engineer	Structural Floors	1,500	0	0	0	3,800	5,000	5,000	5,000	5,000	5,000	**30,300**
Structural Engineer	Abseiling Inspections	6,000	0	0	0	12,000	18,000	18,000	18,000	18,000	18,000	**108,000**
	Total Specialists	**79,790**	**0**	**786,000**	**43,750**	**43,500**	**43,000**	**864,500**	**65,500**	**43,000**	**285,500**	**2,254,540**

Refuse Chutes (Hardall UK)

The survey of the refuse chutes concentrated on two main parts; the Refuse hoppers/ doors and the Discharge Section (The area at the bottom of the chute where the rubbish is stored). In this block there are two discharge sections, with one on the second floor.

Their report highlighted that the above do not comply with current building regulations or Fire regulations for new buildings. The specialist has therefore recommended they are replaced with immediate effect. For the purposes of the report format, these costs have been included in year 1. In future years they have included for regular inspections for compliance and extend warranty of the new installations.

Mechanical & Electrical to Include Lifts and below Ground Drainage (MCCE Ltd)

There are many mechanical and electrical systems which when added together make up the overall cost of capital replacement for the building over 30 years. To summarise all these individual services, we have taken the same headings found in the specialist reports and listed the typical items of work which are included under each of these headings.

Mechanical and Electrical Main Headings and work items

- **Heating System** – No Communal heating – All individual and covered in main condition survey.
- **Water Distribution** – Drinking/ cold water pipework, valves, booster pumps/ controls and tanks
- **Soil and waste Services** – Toilet and sink waste, above and below ground
- **Ventilation** – Fans, ductwork (cleaning), Fire dampers and communal lobby vents
- **Fire Alarms** – No Present in this block.
- **CCTV System** – Block cameras
- **Door Entry** – Entry phones/ buzzers
- **Communal Wiring** – Mains wiring communal (Incoming electrics, Rising mains, dwelling feeds, landlord services and dwelling consumer units.
- **Communal Lighting** – Wiring
- **Lifts** – Lift surveys were undertaken by a specialist lift consultant and managed by the Mechanical and Electrical engineers.

The costs of these works are added together and are included in the table of costs “Block Costs by Specialist” on page 3.

Below is a summary of the work necessary over the next 30 Years.

Electrical Supply

The incoming supply has been renewed in 2010 with some of the Landlords switchgear, but the rising bus bar system and many local services remain original or renewed but dates. There are redundant services which appear to include wiring and we would recommend that these be removed.

Incoming electric distribution Years 26-30
Rising Mains and Feeds to Dwellings Years 11-15
Landlord's services – Due to age of components. Years 11-15
Dwelling consumer unit – Due to the non-compliant installation. Year 1

Lighting – Communal

The lighting system has been replaced some 10-12 years ago with a further addition of emergency light fitting in 2010. All fittings appeared operational but showing signs of failures with good light coverage. There were no recommended works but a budget has been allowed for a replacement system at the anticipated life cycle end of these fittings.

Wiring Year 4
Internal fixtures Year 4
External fixtures Year4

Ventilation System

The ventilation system serves the WC/Bathroom vent within Alice Shepherd House. The extract fan units had been replaced during 2010.

The WC / Bathroom vent required an amount of immediate maintenance to improve operation.

Fire protection measures are recommended to WC/Bathroom Vent to prevent the spread of fire.

Fans – Replacement estimate Years 11-15
Ductwork – Clean Year1
Installation of Fire dampers Year 1

Above Ground Drainage

The main soil stacks appear to be in good condition and are unlikely to fracture as they are internally mounted. Many of the connections to the services have been altered during Kitchen and Bathroom fit-outs. The new connections are often carried out to a poor standard using fittings that are not suitable for Cast Iron connections.

The recommendation is for all dwellings to be reviewed and the connections to the soil stack be made good. The budget allows for the works to be carried out at the same time as the Water Services works as the soil stack and water pipe share the same riser.

Replacement of surface PVC drain connections to kitchen and bathrooms due to previous poor installation. Year 3

Water Supply

The Booster Pumps were replaced in 2010 and are in good operational condition.

The pipework system is formed of Galvanised Steel which appears to have been installed with the buildings construction with an anticipated life of 35 years. Sections cut for a building of similar age within the Tower Hamlets area shows significant corrosion internally and the recommendation is that following a section slice to prove the condition that the pipework system be replaced.

Replacement of pipework & valves – Due to internal corrosion Year 3

Booster pumps & controls – Due to age Years 11-15

Door Entryphone

The door entry phone system is an audio only system appears to have been installed in 2011. There were no recommendations for this system. Replacement required in future years 16-20.

CCTV System

The system appears to have been installed in 2010 and is partially operational with low quality images and two cameras not operational.
A budget has been put forward for the replacement of the system in year 5 when the system would have reached its anticipated economic life although some repairs are likely to be required to get the system fully operational immediately.

Below Ground Drainage

The survey indicated the drains in good condition and recommended a jet clean only.

Lifts

Current disabled standards are not met and a number of upgrades/ tests for compliance for signage and guarding's in motor rooms. These are included in year 1 costs and replacement of lifts Years 11-15.

Structural Surveys (Kirk Saunders)

The structural engineer has surveyed and reported on their surveys under the following three headings:

- Structural Frame
- External Panels
- Structural Floors

The costs of this work is shown included in the table of costs "Block Costs by Specialist" on page 3.

Below is a summary of the work necessary over the next 30 Years, taken from the executive summary of the specialist engineers report.

The building comprises a ten storey residential block.

The structure is believed to comprise cast in situ reinforced concrete floors and core / cross walls, with external precast concrete facing panels, however, at the time of compiling this report access has only been available to internal communal areas and walkways, no access to any accommodation areas for visual or intrusive surveys.

Anecdotal evidence indicates the building was constructed in or around 1968-1969 using a system developed by John Laing Construction known as SECTRA which utilised prefabricated moulds, integrally heated to accelerate curing of the concrete and speed-up the construction programme. No archive record information relating to the original design or construction is held by the current building owners or has been found during a search at London Borough of Tower Hamlets (LBTH) Building Control.

A factual report by Constructive Evaluation on the results of intrusive investigations is contained in the main report, together with details of specific areas / locations accessed.

Several relatively minor and essentially non-structural defects were noted in the areas surveyed, namely:-1. Cracks in the asphalt finish to drainage channels along the walkway edges. 2. A slight bow to a single panel at first floor level. 3. Some localised exposed rebar at the flared lower edges of precast fascia panels.

None of these elements contribute to the structural stability of the building as a whole, but in the cases of the failed asphalt finishes and exposed rebar could lead to deterioration and future localised damage or failure.

It is therefore recommended that these two matters be addressed in the near future.

In situ tests for carbonation and laboratory tests for chloride content on a total of 11 samples obtained from various locations in common areas only at the time of compiling this report indicate that there are no issues for concern at the present time.

Tests were also conducted for high alumina cement (HAC) on 3 samples, the results revealed no HAC content.

Access was gained to void (unoccupied) flat 1 on 30th January 2018, however, as this unit occupies ground floor level only it does not afford any opportunity to undertake investigation into the fixings / support of the external (non-structural) cladding panels. We are advised that there are currently no other void units in Alice Shepherd House, that none are expected in the near future and no access for intrusive investigation works will be available into an occupied flat at this time. We are therefore unable to comment or report fully on the cladding panel fixings at the present time.

A detailed assessment of the robustness of the existing structure is beyond the scope of our brief and this report. Whilst the construction appears to be monolithic cast in situ reinforced concrete as opposed to any form of precast panel / system build, and would therefore offer an inherently greater resistance to serious damage and potential catastrophic collapse in the event of an accidental event such as the 1968 Ronan Point gas explosion, it is not possible to determine the extent of compliance with modern-day design and construction standards, but it should be assumed that the structure would not meet the standards in certain respects.

Appendix A

Block Costs by Specialist

Block Summary cashflows

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