

# CONDITION AND USE ASSESSMENT

## FOR VERY SPECIAL CIRCUMSTANCES CONSIDERATION

MARBLE HILL PLAY CENTRE BUILDINGS

FEB 21<sup>st</sup> 2019

REVISION A 20<sup>th</sup> SEPT 2019

REVISION C 24<sup>th</sup> SEPT 2019

Report by Maybourne Projects Ltd Chartered Architects and Project Managers with Marble Hill Play Centres.

### 1.0 SCOPE

**1.1** This report considers the building fabric and certain operational aspects only, It also considers any main hazards. It has been progressively updated but is not an exhaustive study. It is intended only to provide information on necessity of repair or renewal relevant to the intended planning application and the Very Special Circumstances Report for building in Metropolitan Open Land. *Suggested actions on certain issues should be understood to be the first step in an ongoing process towards complete renewal.*

The survey has been visual only, with added information from staff and Trustees. Less apparent defects which require specialist assessment have not been included, but their possible negative outcome is in part touched upon.

### 2.0 EXECUTIVE SUMMARY

**2.1 Old buildings never intended for current use.** The Marble Hill Play Group buildings are over 60 years old and were originally intended as maintenance buildings for the use for maintenance equipment in the Park.

The buildings were taken over as a nursery some decades ago with just 6 children and two staff at the start, and have become a very important part of the community with growing numbers.

**2.2 Buildings are now ill suited for their role.**

Time has overtaken the facility. What was acceptable decades ago for fewer children is no longer acceptable for contemporary use. The staff report that the buildings are inadequate in terms of space for their administrative roles and under sized for the children now using the facility, unsuited for general and special needs, and cold and draughty.

### **2.3 Impossible to repair effectively.**

The purpose of this report is to demonstrate that the condition and form of the buildings render them unable to attain contemporary expectations and standards even with major building work.

Photographic evidence is included.

### **2.4 Need to be financially viable and to meet rising need**

The Trustees of MHPC have evidence of their own studies on repair and their conclusion that repair was unaffordable and not able to secure a viable footing. Cost of replacement and viability of the business is relevant to assessment. It is important to note the current customer/user waiting list and pressure for spaces. Two other nurseries in the area, Chestnut and Hatching Dragons in Twickenham are closing to consolidate elsewhere and *achieve sufficient viable critical mass*. This is clear evidence that such facilities must be larger to carry their overheads.

This report demonstrates:

- **Inadequate insulation (none)**
- **No installed heating system**
- **Staff experience of cold, draft , and overheating in summer**
- **Hazardous building services for children**
- **Infection and physical harm risk from exposed services, dust traps, recirculating heated air.**
- **Lack of sufficient monitoring and warning systems**
- **Failing built fabric**
- **Difficulty of supervision of external spaces**
- **Expensive and wasteful to heat**

Were these buildings offered as new build for licensing they would be deemed unfit, and they continue in current use due to the hard work of staff on a make do and mend basis and the licensing authorities' awareness that closure would be disastrous for the community.

## **3.0 SCHEDULE**

### **3.1 ADVENTURE PLAY MAIN BUILDING (AP)**

#### **3.1.1 Structure**

Brickwork of two skins with no internal finish, trussed roof in heavy timber, Delta concrete tile roofing on ply board, Inset guttering on ledge, Clerestory window at ridge.

### **3.1.2 Condition**

Barge Boards have peeling paint where not replaced by upvc. and the ply ridge eaves board is rotting and defoliating. Ridge/Eaves trim tiles have deteriorated in places.

High level timber windows (clerestory) are the original, paint has peeled severely and rotting timber evident. Very difficult to access and clean.

The roof tiles, while appearing to be in good condition, have begun cracking. The brick facing appears in good condition.

Brickwork and pointing as a whole are in fair condition but roof is failing in trims with rotting timber and defoliating ply barge boards. There is cold bridging at all apertures in brickwork so any upgrade of heating would result in major condensation and mould.

Failing guttering/downpipes mended with gaffer tape.

### **3.1.3 Heating**

Heat loss is a major failing, exacerbated by lack of insulation, single glazing and cold bridging. There is no installed heating system, random portable oil filled radiators on cables and over head blowers. This is inadequate and is reported so by staff. It is also hazardous.

### **3.1.4 Lighting**

2m neon tube and bulkhead light fittings. Access problems for changing tubes. Quality of lighting inadequate.

### **3.1.5 Electrics**

Surface mounted conduit. The exposed cables from plug sockets are dangerous as children can reach and tug on them. Kitchen has oversized adaptor and hanging wires. Kitchen appliances have exposed live wires at floor level. e.g., the chest freezer, fridge etc.

Exposed electric cables on exterior.

### **3.1.6 Windows**

Mix of types, (timber, white upvc and large door assembly (red colour coated metal.) the doors are double glazed but staff complain of bad drafts through the door assembly

The high level (clerestory) windows are white painted timber framed with wired single glazed. Rotting timber evident. These are a major heat loss point. They are very difficult to access

Toilet windows appear sealed shut, ledge used for storage,(and non operating extract)

### **3.1.7 Insulation**

Walls, roof and floor are not insulated. This is particularly a concern for children. Children may be wet and may wear no shoes. As children spend a lot of time crawling and rolling on the floor the chill from the unheated surface is a health hazard.

### **3.1 8 Floor**

50cm vinyl tiles in fair condition but cement make-up at door cills will be a damp source and is unwashable.

### **3.1.9 Walls**

Timber skirting. which is dust trap, particularly hazardous for crawling children, and not recommended for wash down. A large dust ledge at eaves is an infection hazard.

### **3.1.10 Roof internally**

Apparently uninsulated and with missing portions of internal board. Roof structure is very difficult to clean and access is difficult. Taken together with the ability to gather a quantity of dust and cobwebs this is a health and safety issue. Use of the open roof joists for storage is unacceptable these days on health and safety grounds for staff.

### **3.1.11 Toilets**

There is no storage for equipment. Toilet brushes are on the floor accessible to children who can handle the remnant faeces. This is an infection hazard. Equipment is balanced on window cill which is sealed shut.

Mechanical extract is non functioning.

Timber skirting would be unacceptable for floor wash down today. It requires covered vinyl skirting's.

Large degree of exposed surface plumbing available to child tampering as well as floor level stop valve.

### **3.1.12 Staff comment**

*The staff comment that in winter one can see one's breath. Cold, draughty, inadequate for use and unable to cater for disability or multi roles*

## **3.2 SOUTH STORE AND W.C.**

**3.2.1 External skin** Generally this is a brick stretcher bond structure in fair condition but East face brickwork requires repointing.

**3.2.2 External Doors** The East face is a run of timber doors which are rotting at the bottom

**3.2.3 W.C.** The wc. has exposed pipe work and infection risk as noted for the Adventure Play main building.

**3.2.4 Electrics** Exposed cables and junction box at low level accessed by children. (even if an adult w.c.)

## **3.3 NORTHBLOCK OFFICE AND STORE**

### **3.3.1 STRUCTURE**

Brickwork in stretcher bond. Delta concrete tile roof.

### **3.3.2 Condition**

The building is essentially robust.

### **3.3.4 Heating**

None installed .Staff rely on plug-in portable oil filled radiator.

### **3.3.5 Windows**

Mix of upvc and pca. Frame rotting,timber fixing beads missing or rotting. Mastic pointing necessary. Apparently a mix of single and double glazed.

### **3.3.6 Electrics**

Comment as for adventure play

### **3.3.7 Staff comment**

*Cold, draughty. Impossible to effectively carry out multi roles in cramped conditions.*

## **3.4 MANDERIN DUCK NURSERY MAIN BUILDING (MDN) (OOC)**

### **3.4.1 Structure**

Cavity brickwork of two skins with no internal finish, trussed roof in heavy timber, Delta concrete tile roofing, Inset guttering on ledge, Clerestory at ridge.

East flank top of wall is being attacked by grass and moss. End brick broken away.

### **3.4.2 Condition**

Brickwork is fair condition Major Barge boards are upvc. But timber at upper level Barge Boards has peeling paint and the ply is rotting and defoliating. Eaves trim tiles have deteriorated in places.

Attached on south a lean-to upvc veranda. Attached on north a 3mx 6m lean to of stretched upvc sheet. This room is furnished for but has zero heat retention.

The roof tiles themselves appear in good condition, as is the brick facing. but failing in detail such as extensive failure of guttering and down pipes with repairs occasionally with gaffer tape

Generally the interior of the main MDN building is better than others

### **3.4.3 Heating**

None installed heating. Staff rely random portable oil filled radiators on cables and 4 over head blowers.

### **3.3.4 Lighting**

2m neon tube. And bulkhead light fittings. Access problems for changing tubes. Quality of lighting inadequate

### **3.3.5 Electrics**

Surface mounted conduit. Similar comment to AP Building

### **3.3.6 Windows**

Mix of (white upvc.) and large door assembly (red colour coated al) these are double glazed but staff complain of bad drafts through the door assembly

The high level (clerestory) windows are wired single glazed. These are a major heat loss point. They are very difficult to access. High level timber windows (clerestory) are the original, paint has peeled severely and rotting timber evident. Internally better decorated than AP building.

white upvc windows are in reasonable condition but west kitchen window has blown double glazing.

### **3.3.7 Insulation**

Neither the walls nor the floor are insulated. Cold in winter and hot in summer. This is particularly a concern for children. They may be wet, they may have no shoes. An uninsulated floor with children in bare feet and socks is a hazard in winter,

### **3.3.8 Floor**

Vinyl sheet in fair condition. Floor is completely washable but timber skirtings are present.

### **3.3.9 Walls**

Timber skirting. Severe dust ledge at eaves is an infection hazard. Rear (north) room has purely pvc sheet walls.

### **3.3.10 Roof internally**

Apparently uninsulated roof structure is very difficult to clean and has access health and safety issues.

### **3.3.11 Toilets**

The provision includes child sized sanitary ware and supervisor height screens.

There is little storage for equipment.

Timber skirting would be unacceptable for floor wash down today. It requires covered vinyl skirting's.

Large degree of exposed surface plumbing available to child tampering as well as floor level stop valve.

### **3.3.12 Staff comment**

*Staff complain of extremes in winter and summer, Cold, draughty, inadequate for use and unable to cater for disability or multi roles*

## **4.0 ASBESTOS**

**4.1** An asbestos Survey carried out in 2017 confirms its presence. The asbestos is classified Type 2 with an assessment of medium risk. It is accepted that if not disturbed it may not be hazardous, the asbestos report notes that impact damage from vacuum cleaning etc is a possible risk,

## **5.0 ADDITIONAL ASPECTS FOR CONCERN**

The visual inspection suggested that there may be fundamental areas of dilapidation:

**5.1 Electrics:** There has been no available evidence of the age of the electrical intake and distribution, There are surface-fixed conduits but it is not clear whether the wiring is the original or has been replaced. If original, then the expected life of the system has expired. Given the age of the building the lighting predated 1975 regulations requiring earthing for lighting, and may alternatively use water pipes for main earths.

An NICEIC or equivalent expert would need to fully report were there no plans for rebuilding.

**5.2 Damp:** No moisture meter readings were taken to ascertain whether the walls perform acceptably with regards to moisture. However, uninsulated walls and cold bridging are already hazards and water staining externally from failing gutters may be a moisture source internally.

**5.3 Water services:** Waste water is handled by plastic piping. It is generally accepted that this has a maximum design life of 40 to 50 years. The building is over 60 years old. Such piping is known to deteriorate without visible external signs. Children pulling, kicking or standing on such elderly pipes stand a higher chance of causing failure and water spillage.

**5.4 Heat loss from water supply** The supply pipes are uninsulated and against cold walls. This exacerbates heat loss and running costs.

**5.5 Heating costs.** The percentage of heat lost to high uninsulated roofs, single glazing, draughts and service distribution is very high.

### **5.6 Fitness for specialist use:**

It is reasonable to assume that all specialist work was installed to the relevant contemporary standards at some point in the buildings' life. However over a period of 60 years requirements have

been significantly upgraded. The particular use for children who may tamper or clamber on services at any time, is an aspect that causes concern because regulations are, by their nature, general in assumptions.

### **5.7 Staff health and safety**

Storage and cleaning and maintenance at high level requires access around and over stored equipment and rafters. This is a disincentive to regular attention and can be dangerous.

**5.8 Disposition** Due to original intent, the disposition of the buildings and their sizing owes nothing to any child care brief, and even if that were the case the standards are long since surpassed. The separate buildings create management problems and difficulty in supervision, with sightlines to external perimeter are blocked

**5.9 Lack of shading** The hot summers are causing staff concern over child exposure with insufficient shading

**5.10 Security** There are poor sightlines for monitoring the external areas and the entrance and egress points. The staff office has views only to the west. AP staff face away from the South approach. MDN staff often have to monitor children to the north garden, with attention divided from South and East. Even though gates are secured fences are relatively low and there is no external intercom.

**5.11 Storage** There is a marked lack of installed proper and secure storage internally and externally.

**5.12 Disabled** The ability to cater for disabled children and adults is very limited.

**5.14 Inflexible** The separate inadequate buildings totally restrict the ability to multi use and share spaces.

## **6.0 REFURBISHMENT CONSIDERED**

**6.1** It is common for refurbishment on a major scale to cost more than new build. In this case all windows must be upgraded, new services provided, windows, heating provided etc. Only the brick skin might remain, but that would have to be upgraded in insulation.

The inner skins will then reduce floor area, and yet the areas are at the current minimum.

On the basis of the Asbestos report's findings, no refurbishment can be considered without complete removal of the asbestos.

Even the floor requires taking up and insulating, and the new floor finish should have turned covings to ensure thorough and effective cleaning. This is vital where children are on the floor.

Given that the design life of roof tiles is 30 years, the roof should be replaced. The addition of insulation would either raise the roof or necessitate awkward and expensive fitting between the rafters or boxing-in the ceilings for quilt above.



The appraisal of this necessary work leads inevitably to the conclusion that refurbishment is not a feasible option, on grounds of practicality, health and safety, and cost.

The replacement of the facility with new build is the only route, but the cost has to be justified by better income and this points to taking up the slack of the waiting list.

## **7.0 BUILDING STANDARDS**

**7.1** While the buildings served in the 1970's, the expectation of parents and the requirement of the technical performance of the building, have moved on immeasurably.

In Planning Policy and Regulatory terms the current building is:

- **Non sustainable,**
- **High carbon foot print**
- **Hazardous to health**
- **Liable to condensation and mould**
- **Not acceptable as adult working conditions**
- **Inadequate in space terms**
- **Insecure for child protection**
- **Not disability adaptive**
- **Inflexible to multi-use**
- **Not adaptive to special needs**

### **7.2 Accelerating rise of required standards.**

The buildings already totally fail sustainability assessment, but legislated requirements are becoming far stricter. The concerns of a decade ago over energy wastage, are now moving into areas of public health. Damp air and lack of proper heating are major health hazards. These are fundamental to the Play Centre's operation with vulnerable groups and its licensing.

The International Meteorological Organisation has on 23<sup>rd</sup> September 2019 stated that standards for energy and pollution reduction must triple in target effectiveness. That indicates that the Marble Hill Play Centres have only limited operational time left as they stand before being overtaken by legislated operational requirements.

## **8.0 SUMMARY**

**8.1** The buildings are at end of life and have not changed in structure since they were built 60 years ago for their original use as stores. The lack of internal wall finish hampers cleanliness as rough surfaces, even emulsioned, cannot always be satisfactorily wiped down. The many crevices at high

level harbour dust which is very difficult to access for cleaning . Dust and grime breed bacteria and are a health hazard and this is exacerbated by the use of air blowers.

Distribution of internal services is all on the wall surface, and the result is exposed electrics and pipes which have no protection from children. Even high level power points can be reached by climbing on furniture. The addition over the years of appliances such as fridge and freezers has worsened the situation as wires from the back are on the floor and poking out the side of installations.

The lack of installed heating is of great cause for concern, not simply for comfort but the vulnerability of children. The use of overhead heat sources is not recommended as the head should not be heated up over the rest of the body, and the floor is cold. Blowing the heated air on a recirculating basis pushes dust around , breeds bacteria and is bad for developing lungs in children.

## **9.0 RECOMMENDATION**

**9.1** In accord with the Trustees previous conclusions a plan should be put in place to rebuild in a financially viable form to meet the growing need and wider user spectrum. Such a new building should address the fast rising expectation on sustainability. In the interim it is suggested that the following action be taken:

### **9.2**

- An immediate thorough wall and roof clean and emulsion, to address all ledges and service pipes.
- Care on moving cables that can be tugged and placing in more concealed, unreachable areas. Covers should be added to electric points outlets.
- Checking service pipes are still robust and possibly add further fixings.
- Health hazards such as cleaning fluids and toilet equipment should be in locked cupboards and be out of reach of children.
- Repair non functioning air extracts.
- Evaluation of stored objects and their risk of falling if impacted.

This should be seen as a first step in a vital fast plan to replace the whole facility with a new, regulatory compliant and efficient building that is financially viable to operate.