Riverside House
Bedford Road
Northampton
NN1 5NX

Lift Condition Report

Prepared for: R J Lift Services Ltd

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Date: 12 May 2020
Project No: ALC350

Survey Date : 4 May 2020

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1. Brief

Ascent Lift Consultancy Ltd were requested by RJ Lift Services Ltd, Stoke to undertake a site inspection on the condition of the two duplex passenger lifts at Riverside House, Northampton and provide a report on the findings with costs and recommendations.

1. The report is based purely on a visual inspection of accessible parts.
2. No inspection was carried out of any items that were not readily accessible, and this report does not purport to offer any comments on the condition of items not inspected.
3. No dismantling or testing of the lift installation has been carried out.
4. This report is for the confidential use of the parties intended. It shall not be circulated to any other parties, unless a formal request has been made and approval given in writing by Ascent Lift Consultancy Ltd.

2. Lift Details

Both lifts in each building are identical unless indicated otherwise.

	Riverside House
No of lifts	Two
Type	Passenger /Goods lift
Designation	Lift 1 Left Hand and Lift 2 Right Hand
System	Duplex
Drive Type	Top Drive Traction
Manufacturer	Express Lift Company
Installation Company	Express Lift Company
Installation Date	Circa 1974
Original Unit No	Lift 1: 740216-1 Lift 2: 740216-2
Modernisation	2003 By Kone
Floors Served	5 Stop (G, 1-4) Single Entrance
Load	13 Persons 950 kg
Speed	1.0 m/s
Travel	11.52 m approx
Suspension	1:1 5 off suspension ropes
Control	Full Collective
Drive Type	3VF (Variable Voltage, Variable Frequency) with a Reduction gearbox with flange mounted AC motor and closed loop
Door Operator	Express R type
Door Type	Centre opening 910 mm wide x 2120 mm high
Indicators	Car - Digital DOT Matrix type, mounted in the car operating panel, position and direction Landings - Digital DOT Matrix type Position and direction

3. Lift Condition

The day of the site survey on 4 May 2020 the left hand Lift No 1 of the two lifts was not operational. Lift No 2 right hand worked correctly during the site survey.

A visual inspection of the machine room equipment and landing equipment was only possible for the left hand Lift No1.

The comments therefore refer to the right hand Lift No2 but are also applicable to the left hand lift No1 unless indicated otherwise.

The lifts were originally installed circa 1974 by Express Lift CompanyLtd and partly modernised by Kone Plc in 2003, who replaced the controllers, car and landing pushes and landing indicators on both lifts.

The lifts appear to be in a structurally sound condition and installed at the time to a mid range standard. The current lift condition and wear on the equipment is commensurate with original lift equipment 46 years old and the modernised equipment now 17 years old.

The original lift life cycle design would have been for approximately 25-30 years and the modernised equipment a 20 year life.

Based on the current condition the lifts are have exceeded their original design life and the modernised equipment has only 3 years left, consequently all equipment is showing deterioration in performance with parts of the original equipment no longer available.

The equipment in the motor room consists of the new Kone controller, in which are housed the Kone 375 LCE microprocessor, variable speed variable voltage (3VF) drive, relays and contactors for the lifts. The equipment is worn with the microprocessor now an old design.

The hoist units are original and consist of a reduction gearbox with a separate flange mounted AC motor and brake assembly. The units are worn, with leaks evident in a number of places, but in a reasonable condition.

An original overspeed governor is provided for each lift and these are in a worn condition and no longer available.

The light level in the motor room is below standard with dark spots and no emergency lighting above the brake release assembly. A very large trapdoor is provided to allow movement of equipment from the motor room onto the top floor lobby.

The lift ride quality on the right hand No2 lift is reasonable with the acceleration and deceleration acceptable and transition speeds acceptable for a variable speed variable voltage drive and this also provides accurate floor levelling

The door operation on the lifts is reasonable considering there is considerable wear on the component parts of the operator, which are 46 years old, the operation is not smooth and positive in the operation. The landing door equipment also has worn component parts with adjustment required on several landing and car doors.

The door entrances on the lifts have door detectors fitted to provide detection of objects entering the opening, with a re-opening doors function to prevent any collisions.

The fixtures on the common push plates on each landing as this is a duplex installation are satisfactory having been replaced in 2003, but show signs of extensive use with wear on the pressels. The call accepted pushes worked correctly but do not comply with the current Equalities Act for use by disabled persons.

The car interiors are in very work condition, being original from circa 1974. The right hand lift No2 has a large hole from impact damage on the right hand side front wall , which has been taped up. There is extensive wear and light cover parts missing from the interior.

Wear on the panels and scratches from goods transportation are evident. Several car door panels have wear scratches and grooves on the doors.

The call accepted pushes in the lift car, are worn with wear on the pressels. The position indicator is working and the light level is sufficient.

All of the landing indicators for the right hand lift were working satisfactory on the day of the survey, the left hand working condition could not be ascertained as the lift had been isolated.

The shaft equipment appears to be in reasonable but worn condition, but is showing signs of wear due to the age of the equipment.

The pit area requires cleaning and again the equipment is in a reasonable condition but worn.

The maintenance visits listed on the log card stored in the motor room appear to be on a monthly basis.

Generally the lifts have exceeded their original and nearing the modernised design life and most of the components are worn.

The lifts have a number of Health and Safety items that should be fitted or upgraded to comply with this Regulation.

The lifts do not fully comply with the Equalities Act 2010 (DDA) Regulations and a number of items should be fitted to comply with this Regulation for the use of the lift by disabled persons.

6. Conclusions

Taking all of the information in this report into account the following course of action in our opinion should be carried out.

The following comments apply to both lifts in the building unless indicated otherwise.

As the lifts are now 46 years old for the original equipment and 17 years old for the modernised controller and car and landing equipment, they have exceeded their 20-25 years ands 20 year design life it is recommended that the lifts be completely removed and two new lifts installed to provide the most cost effective solution.

The lifts do not comply with current British Lift standards from a technical and safety aspect regarding the control of uncontrolled upward movement to prevent uncontrolled upward movement of the lift car in the event of failure of the hoist unit, the gearboxes are leaking and the car interiors need to be completely removed and replaced with a contemporary interior design.

The lifts currently do not comply with the Equalities Act 2010 (DDA) Regulations and Health and Safety Regulations, additional items are required to provide lifts fit for purpose for use by disabled persons. These items can be incorporated into the new lift installations technical specification and fitted at the same time.

The new lifts would be a Machine-Room-Less design where all of the equipment is housed within the existing lift shaft. The existing lift motor room would then become redundant.

There will be some builders work required to fit the new landing entrances, landing push plates and indicators and cover the holes in the redundant motor room floor.

We would estimate a total cost for the two lifts, including all necessary builders work, and decoration would be in the region of £175,000 + VAT to complete the installation works and they would take approximately 7 weeks per lift for the lift installations. The approximate delivery period for each lift would be approximately 20 weeks from placement of an order.

7. Recommendations

Our recommendation would be to replace both lifts with new Machine-room-less type.

This would provide suitable lift installations to serve the building for the next 20 years and comply with all current British Standards for lifts, Health and Safety Regulations and the Equalities Act 2010 for use by disabled persons.

A suitable maintenance contract should be put into place as soon as the successful company starts work and they would take possession of the site and carry out service and callouts on the existing lifts whilst each lift is replaced and for 12 months after replacement of each lift to cover the defect liability period. The contract would be designed for both lifts to end the defect period on the same day.

8. Photographs

Photo 1
Typical Lift Controller and microprocessor.

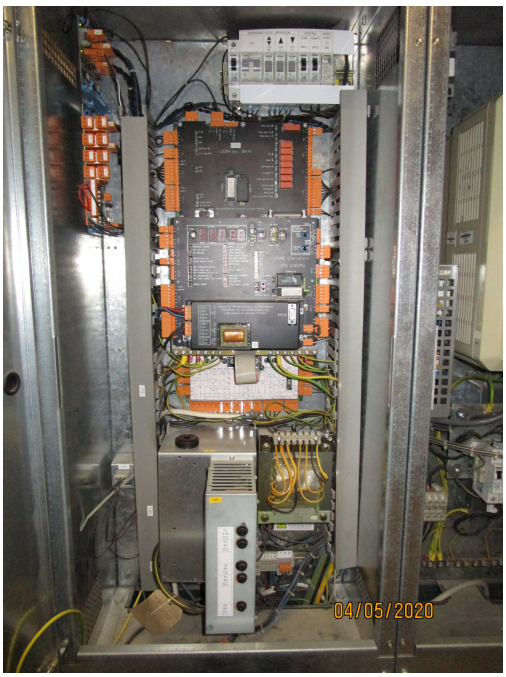

Photo 2
Typical Hoist unit.

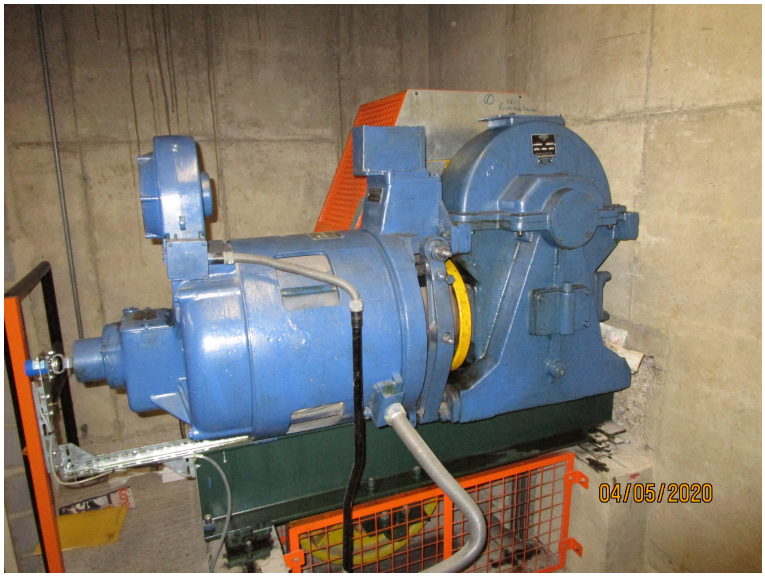

Photo 3
Typical Door operator.

Photo 4
Typical Lift car interior.

Photo 5
Typical Car operating panel.

Photo 6
Typical Lift car top.

Photo 7
Typical Lift pit.