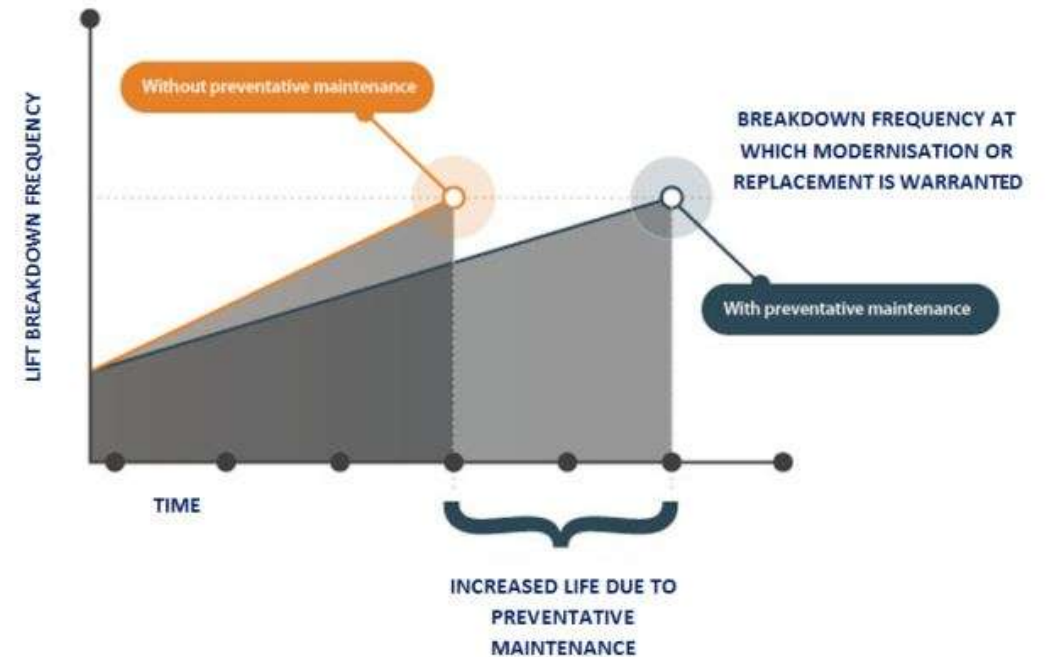


Lift Maintenance

Maintenance Lifecycle

- Install
- Maintain – PPM
- Part Modernise
- Maintain – PPM
- Major Modernisation or Full Replacement





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Maintenance Contracts and Management

How to ensure value is being delivered,
compliance is achieved and your units operate
safely and reliably for the maximum availability



Maintenance Contracts and Management

Lifts & Escalators

- Specialist Industry – difficult to obtain clarity without specialist knowledge
- Contractors maintenance contracts are biased to their requirements
- Costs are high – Difficult to determine the value offered or delivered
- Performance – Lack of credible measurement
- Significant Regulation - HASAW, Loler, Puwer, BS and European Standards.



Maintenance Contracts and Management

The challenges for those responsible for Lifts & Escalators

- Ensuring costs are controlled and value is obtained
- Compliance monitored and up to date
- Safety managed and maintained
- Unit reliability is maximised
- Non-availability/downtime is minimised



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Achieving Value

The Maintenance Contract:

- Tender a Performance Related Maintenance Contract for your entire portfolio – Maximise the buying power available
- Include in the tender process a schedule of works that will be required during the term – achieves best prices for minor upgrades
- Include Schedule of rates – Minimises costs of unscheduled works
- Include % additions for Plant and Materials – prevents excessive charges



Achieving Value

On going value - Invoices:

- Ensure Contract requirements are being met
- Check all invoices:
 - Scope of works
 - Hours claimed
 - Materials used
 - Rates used
- Is it covered by the contract? Challenge as required



Achieving Value

On-going Value – Quotations:

- Ensure Contract requirements are being met
- Check all quotations
 - Scope of works
 - Hours claimed
 - Materials used
 - Rates used
 - What is the benefit and Value
- Are the works covered by the contract?



Achieving Compliance

- Meeting the requirements of HASAWA, Loler, Puwer, etc
- Insurance Reports
 - Completed on time – Late inspections affect compliance
 - Management – processes and procedures need to be in place
 - Individual defects – these need to be tracked to completion
 - Records – full detail need to be available when requested by HSE etc



Achieving Compliance

- Risk Assessments and Method Statements – need to be undertaken as Site Specific documents as well as Standard Generic formats. They need to be reviewed and available for reference
- Standards and Codes – Identify the gap between current status and “best practice” and manage improvements within reasonable expectations and budgets



Maintaining Safety

- Maintenance tasks need to be undertaken correctly and in a timely manner to ensure safe operating – Poor levelling is a significant H&S risk
- Risk assessments and method statements, Generic and Site Specific – More than just compliance, these improve safety
- Lone working – What arrangements are in place? Vacant sites and remote buildings require additional “duty of care”
- Defects need to be actioned, closed out and recorded accordingly – resolved defects reduce risks



Maximising reliability

- Maintenance visits monitored and recorded – Full equipment lifespan is dependant on effective maintenance
- Callouts need to be monitored and records reviewed to enable trends to be identified, root caused determined and corrective action taken – this prevents repetitive calls
- Minor defects need to be identified and resolved to prevent future issues – Pro-active versus Re-Active



Minimising Non-Availability

- Callout response times need to be minimised. Review on a regular basis and challenge contractor when delays occur
- Downtime and meantime to repair - these need to be recorded and reviewed regularly with the Contractor to prevent excessive delays
- Spares availability – robust sourcing strategies required for all components to avoid long lead-times
- Repairs - proactively managed to minimise disruption



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Your Portfolio

- How many lifts do you manage?
- What is the building mix and how do their needs differ?
- What is the demographic of the equipment mix and can the units be properly maintained?



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South Lanarkshire Council

- **Non Housing**
- **Number of properties on contract** 114
- **Type of properties**
- Schools
- Civic Buildings
- Homes for the Elderly
- Leisure Centres
- Day Centres
- Community Halls



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South Lanarkshire Council

- **Housing**
- **Number of properties on contract 35**
- **Type of properties**
- Tower Blocks
- Sheltered Housing complexes



Maintainability – Key Areas

- Controller
- Machine or Hydraulic Power Unit
- Door Equipment
- Push Buttons & Indicators

Key

1 = Parts are readily available from 3rd party suppliers and equipment knowledge is widespread

2 = Parts are readily available from OEM and equipment knowledge is widespread

3 = Parts are limited and equipment knowledge is generally limited to the OEM

4 = Parts are difficult to source and equipment knowledge is limited



Maintainability – Case Study

- Viewpoint Housing Association Edinburgh
- 44 lifts
- Ranging from 22 – 41 years in service
- Mix of Traction, Hydraulic & Disabled Access
- Only 2 buildings with 2 lifts



Site	Score					
		Controller	Drive / Hydraulic	Doors	Push Buttons & Indicators	Total
Woodthorpe House - Lift ID 2108/39 - 1978		4	3	4	4	15
66 Ogilvie Terrace - Lift ID 2108/13 - 1976		3	3	4	4	14
29 Salisbury Road - Lift ID 2108/20 - 1984		4	3	3	4	14
Northwood House Lauder Rd Old - Lift ID 2108/33 - 1984		4	3	3	4	14
4 West Richmond St - Lift ID 2108/37 - 1981		4	2	4	4	14
4 West Richmond St - Lift ID 2108/38 - 1981		4	2	4	4	14
City Park Schindler Lift - Lift ID 2108/2 - 1981		4	4	3	4	15
12 Etrick Road - Lift ID 2108/12 - 2001		3	1	3	3	10
43 Gillespie Crescent East - Lift ID 2108/14 -		3	3	3	3	12
43 Gillespie Crescent West - Lift ID 2108/15 -		3	3	3	3	12
45 Gillespie Crescent - Lift ID 2108/16 -		3	3	3	3	12
Croft an Righ Back Lift - Lift ID 2108/8 - 1988		3	2	2	3	10
Croft an Righ Front Lift - Lift ID 2108/9 - 1988		3	2	2	3	10
40 Drummond Place - Lift ID 2108/10 -		1	1	4	4	10
Inverard - Lift ID 2108/21 - 1981		1	1	4	4	10
Marian House - Lift ID 2108/30 - 1988		4	2	2	2	10
Woodthorpe House - Lift ID 2108/40 - 1993		3	1	3	3	10
Old Farm Court - Lift ID 2108/43 - 1976		1	2	3	3	9
Old Farm Court - Lift ID 2108/45 - 2012		1	2	3	3	9
Glenesk House - Lift ID 2108/19 - 2003		2	2	2	2	8
Kilravock - Lift ID 2108/22 -		1	2	2	2	7
Lade Court Bakers Place - Lift ID 2108/25 - 1998		2	2	2	2	8
Head Office - Lift ID 2108/36 - 1992		2	2	2	2	8
John Hunter Court - Lift ID 2108/41 - 2003		2	2	2	2	8
Craiglea Place South - Lift ID 2108/6 - 1990		2	1	2	2	7
Craiglea Place North - Lift ID 2108/7 - 1990		2	1	2	2	7
61b St Albans Road - Lift ID 2108/35 - 1976		1	2	4	1	8
45 Maidencraig Crescent - Lift ID 2108/4 - 1990		1	2	2	1	6
City Park Stannah Lift - Lift ID 2108/3 - 1995		1	1	1	2	5
Craiglea Court - Lift ID 2108/5 - 1970		1	1	2	1	5
Kilrymond - Lift ID 2108/24 - 1997		1	1	1	2	5
Argyle Park Terrace - Lift ID 2108/1 - 2012		1	1	1	1	4
40 Drummond Place (Platform) - Lift ID 2108/11 -		1	1	1	1	4
47 Gillespie Crescent North - Lift ID 2108/17 - 2012		1	1	1	1	4
47 Gillespie Crescent North - Lift ID 2108/18 - 2012		1	1	1	1	4
Lennox Row Front Lift - Lift ID 2108/26 - 1990		1	1	1	1	4
Lennox Row Back Lift - Lift ID 2108/27 - 1990		1	1	1	1	4
Lynedoch House Old Building - Lift ID 2108/28 -		1	1	1	1	4
Lynedoch House New Building - Lift ID 2108/29 -		1	1	1	1	4
Mill House - Lift ID 2108/31 -		1	1	1	1	4
Northwood House Lauder Rd New - Lift ID 2108/32 -		1	1	1	1	4
Letham Court Leven - Lift ID 2108/34 - 2001		1	1	1	1	4
St Raphael's Care Home - Lift ID 2108/42 - 2012		1	1	1	1	4
Balfour House - Lift ID 2108/44 - 2012		1	1	1	1	4





Quality Auditing

- Are your lifts being maintained properly?
- Are log cards and records up to date?
- Are you getting what you pay for?
- Demonstrate an independent overview



Next Steps

- Do Nothing?
- Modernise?
- Fully Replace?



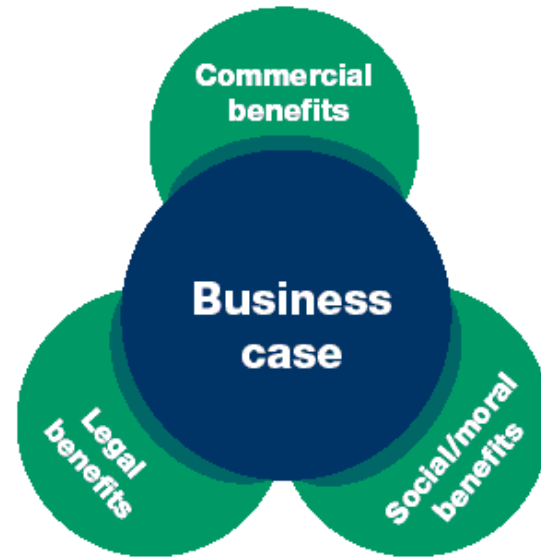


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Modernisation - a decision taken only every 15-20 years



Make It Wisely!





Modernisation – Case Study

- South Lanarkshire Council
- Jacobean House East Kilbride
- Maintainability Profile

Site	Controller	Hydraulic	Doors	Push Buttons / Indicators	Total
Jacobean House	4	3	2	3	12



Modernisation – Case Study

- South Lanarkshire Council
- Jacobean House East Kilbride
- Resultant Maintainability Profile

Site	Controller	Hydraulic	Doors	Push Buttons / Indicators	Total
Jacobean House	1	1	2	1	5



Modernisation – Case Study

- South Lanarkshire Council
- Sherry Heights & Rosebank Tower Cambuslang
- Maintainability Profile

Site	Controller	Machine	Doors	Push Buttons / Indicators	Total
Sherry & Rosebank	4	4	3	4	15



Modernisation – Case Study

- South Lanarkshire Council
- Sherry Heights & Rosebank Tower Cambuslang
- Resultant Maintainability Profile

Site	Controller	Machine	Doors	Push Buttons / Indicators	Total
Sherry & Rosebank	1	1	1	1	4





Modernise or Replace?

- What are the pro's and con's?
- What do I have to do?
- Are there Standards to follow?