

Elevators might take up little space in buildings. Still, they d`UmU'g][ b] Wbhfc`Y`b`U`Vi ]X]b[ g`YbYf[ mV`bgi a dh]cb` UbX`Wb VYbY hZfca `]a d`Ya Ybh]b[ `a cfY`Y` VYbhiUbX` VtghY` YWlj`Y`gnghYa g"

; UbbYthi: `Ya ]b[ gj`Yfh]W`hfUbgdcf]h]cb`hYUa` incorporates sustainable design practices and energy conservation into vertical transportation projects. bZcfa`YX`XYW]g]cb!a`U\_]b[ `]b`U`dfc`YVd`UgYg[ i ]XYg`h`Y` design team or building operator through implementing sustainable technologies.

<YfY`UfY`Zci`f`k`Ung`ci`f`j`Yfh]W`hfUbgdcf]h]cb`hYUa` recommends incorporating sustainable elevator design practices.

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## 1. Reduce Power Consumption with Machine-Room-Less Elevators

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» FYXi WX'Zcchdf]bhk ]h ]b Vi ]X]b[ "

## BENEFITS OF MRL ELEVATORS

A F@hYVWbc'c[ mXY'j Yfg\ ][\ Yf YbYf[ mY VYbVhik ]h ]b' hLY'c]gfk UnzfYgi 'h]b[ ]b.

- » Reduced electrical consumption.
- » @ck Yf''ZYVWVW'Vt'ghg"
- » 9]a ]bUHYX'bYXX'Zcf'cj Yf\ YUX'dYbhc i gY' construction.
- » A ]b]a ]nYX'\YU]b[ 'UbX'Vt'c']b[ 'fYei ]fYa Ybhg"
- » Improved durability and maintainability eliminate the bYXX'Zcf'gc]'#k UHYf'Vt'bHJa ]bU]b[ '\nXfUi 'jW i ]X"

## DRAWBACKS OF MRL ELEVATORS

Unlike the commonly acceptable hydraulic and traction Y'Yj Uhc'f'ghUbXUfXg'z]g]b[ 'UbX'gdUW'fYei ]fYa YbHg'X] Yf' Ua cb[ 'hLY'j Uf]ci g'A F@a Ubi ZUMi fYfg"

- » J Uf]ci g'c]gfk Umid'Ubg'UbX'Y'Yj U]cb'Zcchdf]bhg'a U\_Y' it challenging to provide a design that enables the dUfh]V]dU]cb'cZYUW' A F@Y'Yj Uhc'f'a Ubi ZUMi fYf"
- » MRL technology can be highly proprietary, resulting ]b'U'Zcf'WX''cb[ !hYfa 'fY'U]cbg\ ]d'Zcf'dfYj Ybh]j Y' a U]bhYbUbW'VYtk Yyb'hLY'ck bYf'UbX' A F@Y'Yj Uhc'f' a Ubi ZUMi fYf"
- » Customizing elevator designs is limited to a a Ubi ZUMi fYf'g'ghUbXUfX'cdh]cbg'Zcf'Wf'YbVt'gi fYg'z' YbhUUbWg'z'UbX'cdYfU]b[ #g][ bU'' I hi fYg"

i ]X''YU\_'Vt'i 'X' [ c'i bbch]WX''HLY'Vt'bgYei YbWg'Vt'i 'X' VY'gc]'UbX' [ fci bXk UHYf'Vt'bHJa ]bU]cb'": cfi bUHY'nz' leaks have become less common as these elevators are replaced or modernized.

A maintenance contract does not cover the hydraulic 'YU\_'fYdU]f''HLY'Vh]bXYf#d'i b[ Yf'UggYa V'mVt'ghz']bW' X]b[ ' hLY'fYei ]fYX'fYa YX]U]cb'cZVt'bHJa ]bU]bhg'z'Wb'fUb[ Y'

## 2. Be Wary of Leaky Hydraulic Elevators

<nXfUi 'jW'Yj Uhc'fg'di a d'\nXfUi 'jW i ]X'hc'U'Vh]bXYf# plunger assembly that vertically moves the piston that fU]gYg'hLY'Y'Yj Uhc'f'WV'UbX''ck Yfg]'hVUW'Xck b''HLY' Vt'bj Ybh]cbU'Vh]bXYf#d'i b[ Yf'UggYa V'mfYg]XYg']b'U'k Y'' hole directly beneath the elevator.

M'Ufg'U[ c'zh YgY'UggYa V']Yg'k YfY ]bghU''YX'k ]h' ''hY'cf' bc'dfchYV]cb'Zfca 'hLY'gi Vgi fZJW'Y'Ya YbHg''K ]h'ci hi hLY'UV']]mhc' ]bgdYVh'hLY'UggYa V'miVYbYU'h' hLY'gi fZJW'z' XUa U[ Y'hc' hLY'Vh]bXYf'h'Uhk ci 'X'fYgi 'h]b'U'\nXfUi 'jW

larger capacities available. In certain applications, it is machine located in a separate machine room than in the

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## About the Author

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Hcbm8YZfUbWgVt Jg'h.YJ JW'DfYg]XYbh/ 'DfUM]W'8]fYVtcfZJYfh]W'`  
HfUbgdcfH]cb'Uh; UbbYth: `Ya ]b[ "HcbmWb `VY'fYUWYX'Uh  
[UXYZfUbWgVt4 \[ZbYh\]Va](#).

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## About the Article

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H\ ]g'Ufh]WY'k Ug'k f]hYb'Zcf'h\Y'cb`]bY: [UbbYth: `Ya \]b\[ :BG; <HG](#)

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