

# The New Zealand LIFT FAX

*The New Zealand Lift Fax is produced bi-monthly for the NZ lift industry. Just send your email address to LEC to subscribe.*

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05/2008

## **WHAT'S GOING UP or DOWN THIS MONTH:**

Other than hundreds of platform lifts suitably installed and providing sound disabled access alternatives to building owners and users throughout NZ, the Christchurch earthquake, or should I say the slow and controlled rebuild, still dominates the lift industry in our garden city. Although we are seeing some rebuilding of lifts on the periphery of downtown Christchurch, it seems for those at the workforce, there still reflects a pessimism in the market when it comes to when those many areas of industry still in survival mode and awaiting insurers to ease the purse strings, will enable design and the acquisition of materials to get underway. Some say 2011 -12 saw the demolition phase nearly complete, but those at the end of the rebuild chain can still expect 3 to 5 years of coping with reduced incomes and tight budgets . . . if they are to survive!

## **OLD NZ LIFT CODES:**

As promised I've scanned my old Power Lift Rules and others that are not too easy to source in the hope we all have a better understanding of these evolved past rules. Remember that where no consentable work has been carried out on any lift, for WOF purposes they need to be inspected to the code applicable at installation, and so some of these rules may still be the only rule that applies. See - <http://www.lifeye.co.nz/codes.html>

## **EDITORIAL: Size Matters:**

What is it about a 1.4m wide x 1.4m long lift car size that attracts so much passion in our Council Consent officers when it comes to low-rise low-speed disabled access solutions? Is it the old 'give a dog a bone' syndrome where the dog just cannot let go?

If there are flaws in the logic, just point them out, but I have been presenting the case for near on 20 years and have yet to see sound argument as to why this specific restrictive size is necessary when you only need to safely move a single wheelchair and possibly an attendant over one floor to satisfy the D1 & D2 Building Code performance requirements. A typical footprint for a wheelchair is only 0.7m wide x 1.35m long and yet NZS 4121 set in stone a single inflexible 1.4m x 1.4m minimum platform size for any disabled access solution. The main concern espoused by some Council officers seems to be that the disabled access standard NZS 4121's preferred minimum lift size should be obligatory no matter the lift solutions use or purpose.

The minimum car size of 1.4m x 1.4m was first adopted as a standard lift industry product size, reflective of the industries equipment available in the early 90's, and this was adopted into the 1989 Power Lift Rule amendment of July 1992 for mixed traffic use in NZ. It has stagnated there ever since. Even the European standard for lifts; EN81 1998, recognised that a 1.1m wide x 1.4 m long car size was a suitable mixed traffic minimum size for disabled access.

In the meantime much more cost effective, more flexible and relevant fit for purpose solutions have evolved employing platform lifts that provide a sound means of mechanical access for low use, low speed disabled access in NZ buildings. Come on local authorities and the Disabled lobby, when are we going to stop wasting time during the Consent process. Remember it's about performance today, not myopic conformance to a past era. Ed.

## **STATUS OF COMPLIANCE DOCUMENTS:**

**NOTE: COMPLIANCE DOCUMENT IS THE LATEST TERM USED FOR ACCEPTABLE SOLUTIONS, AND PREVIOUS TO THAT APPROVED SOLUTIONS:**

The Department of Building and Housing prepares compliance Documents in accordance with section 22 of the Building Act 2004. A Compliance Document is for use in establishing compliance with the New Zealand Building Code.

A person who complies with a Compliance Document will be treated as having complied with the provisions of the Building Code to which the Compliance Document relates. **However, a Compliance Document is only one method of complying with the Building Code.** There may be alternative ways to comply.

Users should make themselves familiar with the preface to the New Zealand Building Code Handbook, which describes the status of Compliance Documents and explains alternative methods of achieving compliance. People using this Compliance Document should check for amendments on a regular basis.

The Department of Building and Housing may amend any part of any Compliance Document at any time. Up-to-date versions of Compliance Documents are available from [www.dbh.govt.nz](http://www.dbh.govt.nz)

**MURIWAI SURF CLUB:**

Norm Huggett of NZES was kind enough to forward a photo of his old surf club at Muriwai Beach's new CIBES disabled access platform lift.

Norm as a past senior active member was pleased to be able to help the club solve their disabled access requirement for their new 5.2m clubhouse.



The new club house was officially opening on the 28<sup>th</sup> February 2013 by none other than the Prime Minister John Key and Auckland Mayor Len Brown.



The lift which included automatic swing doors was one of the Cibes A 5000 range of platform lifts which are ideally suited for their small footprint low speed and low ongoing running costs.



Situated on a fifty kilometer stretch of Auckland's rugged west coast, Muriwai is renowned for its stunning scenery, abundant wildlife and its sparkling black sand. The Muriwai Volunteer Lifeguard Service found its origins in 1948 after a series of near tragedies encouraged the local community to form a lifesaving club. For over sixty years Muriwai lifeguards have patrolled this isolated paradise, preventing injury and loss of life on one of Auckland's most popular beaches.

Norm started with the NZ Government some 28 year ago with the Marine Division of the Ministry of Transport as an Engineer Surveyor and surveyor of ships.

During his time there he was heavily involved with the certification to the Power Lift Rules of new and existing lift systems. It was the MOT that was disbanded in 1992 with introduction of the Building Act in New Zealand in 1991.

It was around then that Norm began his more active role in the lift industry by becoming part of New Zealand Engineering Services of which he is a director today.

One of his frustrations with the prescriptive Power Lift Rules was its possible stagnation. Under the introduction of the Building Act, the then Power Lift Rules 1989 was adopted as an Approved Solution for passenger lifts in NZ under section D2 of the new Building Code.

Technology was on the move and single solution prescriptive codes stagnate if not updated regularly, and so Norm who was on the industry lift committee at that time, wanted to adopt a more dynamic overseas standard.

But the lift committee did not initially accept this, and so

areas of the code such as car size; which historically in NZ related to load capacity, identified 1.4m<sup>2</sup> as the preferred standard lift minimum floor area for disabled use in NZ.



Lifts were historically measured in floor area for

load capacity, but for disabled access purposes a fixed size of 1.4m x 1.4m was first adopted in the 1985 NZS 4121 design standard for disabled access in buildings.

Subsequently it was merged into the power lift rules as an amendment to the 1989 PLR in July 1992 in its restrictive 1.4m x 1.4m requirement instead of a total floor area of 1.4m<sup>2</sup>.

Following an updated but little changed NZS4332 in 1997, the European Passenger Lift Standard EN81:1989 was adopted as an Acceptable Solution in NZ. Here a 1.1m wide x 1.4m long minimum-disabled access car size in line with the international ISO standard lift car sizes was set.

Norm was also a founding member in the set up of the HERA / CBIP lift inspector certification process to set and mark exam papers and take oral exams from prospective lift inspectors in NZ. His recognition by Co mpenz and as a member of International Association of Elevator Engineers reflected the interest he has retained in his adopted lift industry.

As an observer and inspector in this industry over the past 20 years, I'm sure its been disappointing to Norm to see the political undermining of the certification of inspectors and of the new lift compliance process in NZ under the Building Act.

On a sad note, the evening I received some of these photos from Norm, there was a news flash on the TV that caught my eye confirming a Great white shark had a couple of days after the reopening of the club, taken a well know local of the area who was surfing at the beach at the time.

**CANNY TEST TOWER/TECHNOLOGY BUILDING:** On March 12, Canny Elevator began foundation work on its new test tower and technology building in Wujiang, China. The main structure height of the test tower is to be 288 m, with 268 m above ground, making it one of the tallest elevator test towers in the world. Elevator speeds inside could reach 21 mps, and double-car testing is possible. The east side of the test tower will consist of an escalator testing area for units up to 50 m, and the south side will include a technology building.

**INTERLIFT PREPARING FOR BUSY SHOW:** Organizers of Interlift 2013, to be held in Augsburg on October 15-18, have reported large international communal stands are on the increase. More exhibition space will be dedicated to this type of booth than ever before. ANICA and ANACAM (Italian elevator association) are planning to include a graphic presentation of elevator exhibits from 1900-2000. For more information on the event and a list of topics for the speakers' forum (ELENET 558), contact Anja Gietz of VFA-Interlift at e-mail: [anja.gietz@vfa-interlift.de](mailto:anja.gietz@vfa-interlift.de) or website: [www.vfa-interlift.de](http://www.vfa-interlift.de).

**SCHINDLER-FUNDED SOLAR AIRPLANE TO LAUNCH:** A solar-powered airplane, partly funded by Schindler (ELENET 516), is to take off from Moffett Airport outside San Francisco on May 1. Stops are scheduled for Phoenix; Dallas; Atlanta or St. Louis; Washington, D.C.; and New York City. The company is a partner of Solar Impulse HB-SIA in a zero-fuel airplane project that aims to send such a craft around the world propelled only by solar energy. These "Across America" flights are expected to be a gateway to that goal, with further aims of developing targeted innovations that revolutionize the structure of materials, improving their robustness and reducing their weight.

**OTIS LAUNCHES GEN2 SWITCH:** Otis is in the process of launching a new residential Gen2<sup>®</sup> elevator that eliminates the need for three-phase power, and utilizes solar power and battery-backup technology. The Gen2 Switch<sup>™</sup> elevator will be available through Otis operating units in a phased rollout in such markets as Europe, India, Southeast Asia, and Central and South America. Otis states it adds the benefits of being simpler to install, more sustainable and safer during power failures or outages. The unit is suitable for up to a 21-m rise, seven stops and 80 starts per hour, and is up to 75% more efficient than traditional elevators.

**INDUSTRY GROWTH IN CHINA:** The [Shanghai Elevator Trade Association](#) has reported China's elevator industry has grown more than 20% over the past 20 years. Furthermore, a steady growth trend is expected for 2013. Last year's indoor market was concentrated in the country's second- and third-tier cities, and downtowns. The year also saw the number of elevators in Beijing reach 150,000, with an annual increase of that number by 15% and total elevator production reach 529,000 units (compared with 450,000 in 2011). Thirty-eight thousand elevators and 17,000 escalators were exported in 2012.

## LIFTING PLATFORMS:

### Why use a lifting platform?

In an ageing society and where restriction on movement through physical limitation or disability can be alleviated through the application of technology, use of simpler more cost effective mechanical means of access have evolved.

Lifting platforms have become a lifting device for persons complementary to or as an alternative to passenger / goods lifts in specific applications. Specific, in that there inherent constraint in speed and thereby functional travel, (EU 1.5m/sec – NZ 0.3m/sec), means there is no contradiction or superimposition with standard lifts.

In addition, lifting platforms can be more relevant within design constraints of restricted spaces, with reduced acquisition and installation times, lower power use and ongoing running cost.

There are established European machinery directives harmonized in standard (EN81-41), and local standard (NZS 4224:2012), that have evolved from local & international lift codes to enable low-rise, low-speed solutions to be considered under the Building Act in NZ.

The freedom of movement at home and in low rise buildings, either to achieve conformance to building access requirements (D1), or as a matter of growing importance for anyone with walking difficulties (elderly people), through injury or disability, a mechanical means of vertical access is no longer considered a luxury.

Today's solutions are simple, safe, reliable and relatively low cost (\$20k+), where solutions are selected to meet a specific purpose and budget.

As many units are similar to an off the shelf appliance, an independent inspection and risk analysis of the many variations to the environments in which they can be installed is critical to safe compliance. Many overseas supplied designs have been CE assessed and carry certificates ensuring no compromise to safety in design is achieved.



It has taken past prescriptive code makers a long time to get over the restrictions to handicapped users of prescribing constant pressure controls and in some cases solution restrictive minimum 1.4m x 1.4m platform sizes, as per this issues editorial, but thankfully performance codes enable safe alternative solutions to be considered, and not just adopting myopic conformance to past vested interests.

For details of NZ suppliers and solutions, visit the LEC website: <http://www.lifteye.co.nz/equipsuppliers.html>

## WHY CONSTANT PRESSURE CONTROLS?

Double button constant pressure controls and slow speeds are used on top of passenger lift roof top controls for maintenance purposes because it is a potentially dangerous environment, and these measures provide the necessary fail safe component in control design.



On the other hand, they also became the default practice in user controls when small travel single user platform lifts began to become more prolific in addressing the growing awareness of the restricted access to infirmed or disabled users in commercial buildings.

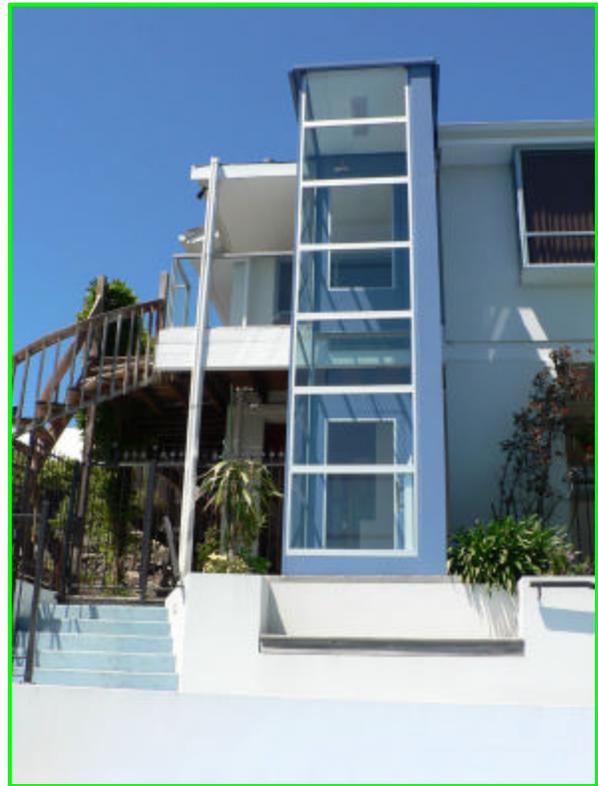
But seemingly not taken into account by code makers was the difficulty some disabled users have with having to constantly depress a button for up to 30 second or more to travel to their destination. In the meantime, various safety additions to controls due to risk assessment of the environments in which these unit were employed saw obstruction sensors fitted - elimination through design of crush or entrapment zones - hard surface enclosed shafts and flush entrance doors over the platforms travel, all increasing the safety of the users environment.

In addition in NZ, the 1991 Building Act introduced an annual compliance schedule regime that hadn't existed under the old regime for platform lifts and dumb waiters. And so annual independent inspection, although only administered consistently in the past few years, means that the safe standard of installation should be maintained over the life of the lift.

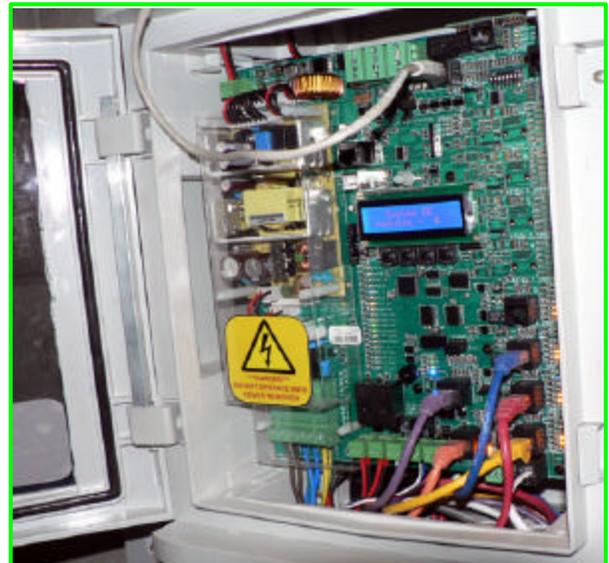


controls to be adapted without compromising safe use.

And so now back to my question.  
**Why constant pressure controls?**  
Why has it taken so long for code makers to accept the difficulty for many disabled users in operating constant pressure controls, and by ensuring the environment in which the equipment is to operate, allowing for more functional



With simple low cost PLC or smart relay controls systems we can make operations smarter and thereby more functional for disabled users. If we could just get our heads away from exclusivity, why not employ destination controls for platforms so that the user only has to input there preferred destination at the landing, and the smart system constantly monitors the environment while opening and closing doors and safely transports the user from entry to exit.



Come on single solution prescriptive code makers, keep them up to date and relevant in today's market!  
And council consent officers, try to trust those recognized for their industry experience rather than just holding up the Consent process in trying to interpret or apply every nuance of an acceptable solution, when an alternative is proposed. Let us be constructive for disable access, not obstructive!