

Universal Design meets the Exit Sign

*Universal Design
Conference 2016*

Sydney Town Hall

Wednesday, 31 August 2016



Lee Wilson, Universal Design & Accessible Egress Advocate





Lee Wilson

Access Consultant

MAIPM MWOBO C.Build E MCABE PEng(UK) MSPE

- Experience in risk, OH&S and building compliance
- Grad Certificate in Performance-Based Building & Fire Codes
- Bachelor of Technology (Building Surveying)
- Accredited Member of ACAA
- Employed with Philip Chun Access Pty Ltd

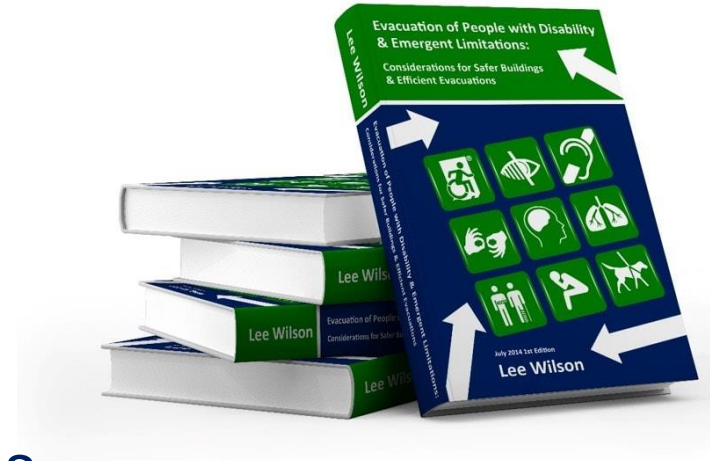




How I came to be here today

- 2012-2014: Studying Masters degree
- 2014: Completed 8,000 word thesis
- 2014: Released free evacuation guidebook

Evacuation of People with Disability & Emergent Limitations



- 2014: Started 'Accessible Exit Sign Project'
- 2015: Released '*Universal Design meets the Exit Sign*' White Paper
- 2016: Free evacuation guidebook updated



Australian Building Codes Board



“Every Australian has the right to expect that reasonable provisions will be made to allow them to leave buildings safely in the event of an emergency.”

(ABCB 2014)



Australian Building Codes Board

“Moreover, it is crucial for equitable, dignified, and independent access to buildings that people with disability can be confident that they will also be able to evacuate from a building in a safe, dignified and independent fashion in the event of an emergency.”

(ABCB 2014)





The legislative 'gap'

- No requirement to distinguish **accessible** and **non-accessible** evacuation routes
- Little accessible features in evacuation routes
- Failure to consider needs of all occupants in building codes
- Lack of regard for a changing demographics





Applicable legislation

- UN Universal Declaration of Human Rights
- UN Convention on the Rights of Persons with Disabilities
- Australian Human Rights Commission Act 1986
- Disability Discrimination Act 1992
- Work Health and Safety Act 2011 (& State/Territory OHS laws)
- National Construction Code (State/Territory building laws)



Relevant Australian data

- 10.5% have a mobility disability
 - 2.5% use a mobility aid
 - 0.6% use a wheelchair)
- 1.6% have a vision impairment
- 1 in 6 affected by hearing loss, projected to be 1 in 4 by 2050
- 1 in 5 with disability (approx.)
- 20% of population over 65 years by 2030





Case for universal design exit signs

- No consistent approach
- Ambiguous exit signs using International Symbol of Access
- UK research found that only 38% of people recognise conventional exit signs
- Lastly, we've created fully accessible buildings, with no means for accessible evacuation





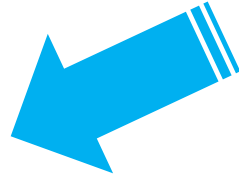
‘The Evolution of the Exit Sign’



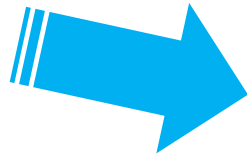
(Before 2005 in Australia)



(After 2005 in Australia)



(European ISO design in 2011
– not used in Australia)



(2014 - Universal Design Meets the Exit Sign Concept)



Universal Design Meets the Exit Sign video



‘Universal Design Meets the Exit Sign’ concept

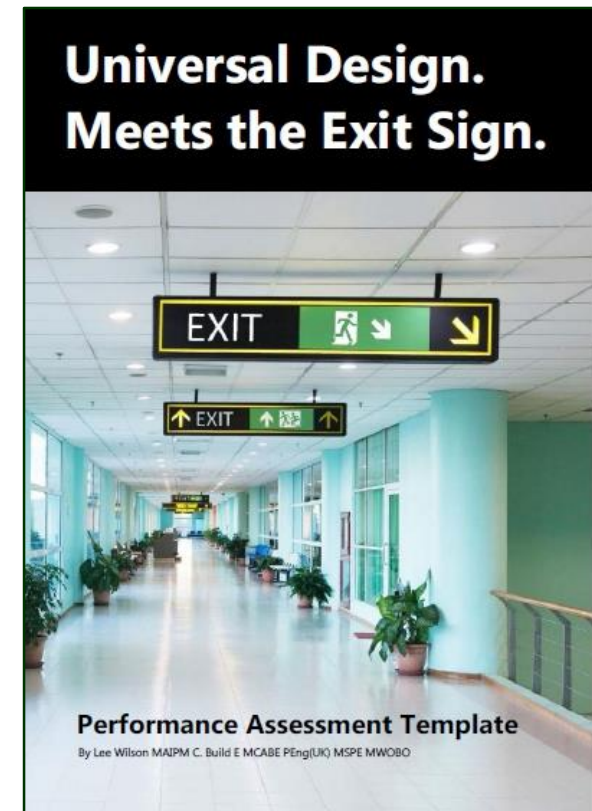
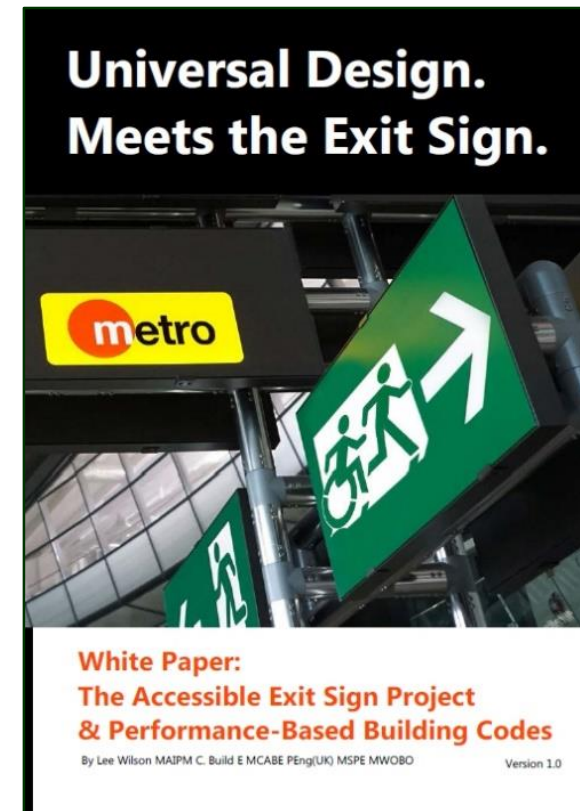
- Considers all abilities, including audible alarms, visual alarms
- Adopts 5 of 7 Principles of Universal Design
- Clarifies accessible evacuation routes, known internationally as the ‘accessible means of egress’
- Provides a consistent approach to identifying parts of accessible means of egress





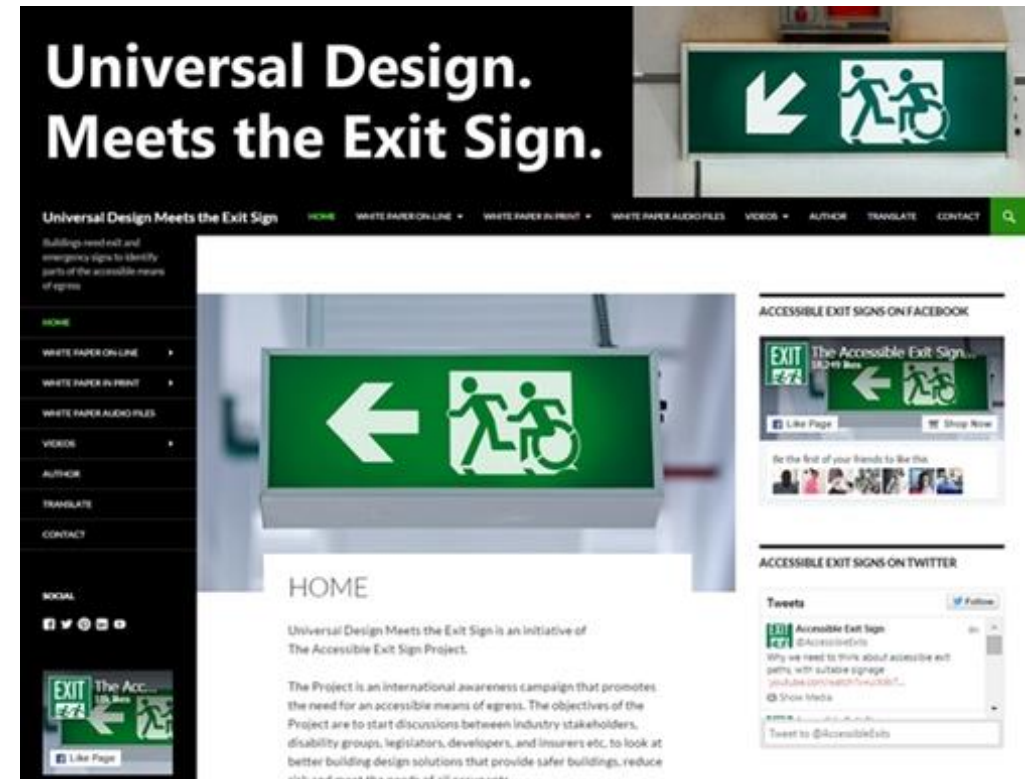
The 'White Paper' in print

- Fully justifying the use of the universal design concept
- Commentary on legislation, history of exit signs, UD relevance and case for new inclusive approach
- Includes Performance-Based 'alternative solution template





The 'White Paper' online



- Converted into a website:

www.universaldesignmeetstheexitsign.com



Accessible Means of Egress Icon

- Changes current discriminatory approach to exit signs
- Presents a fully inclusive design
- Tactile design
- Figures are:
 - moving in unison with same urgency and motion
 - working together to escape the building
 - travelling at the same speed





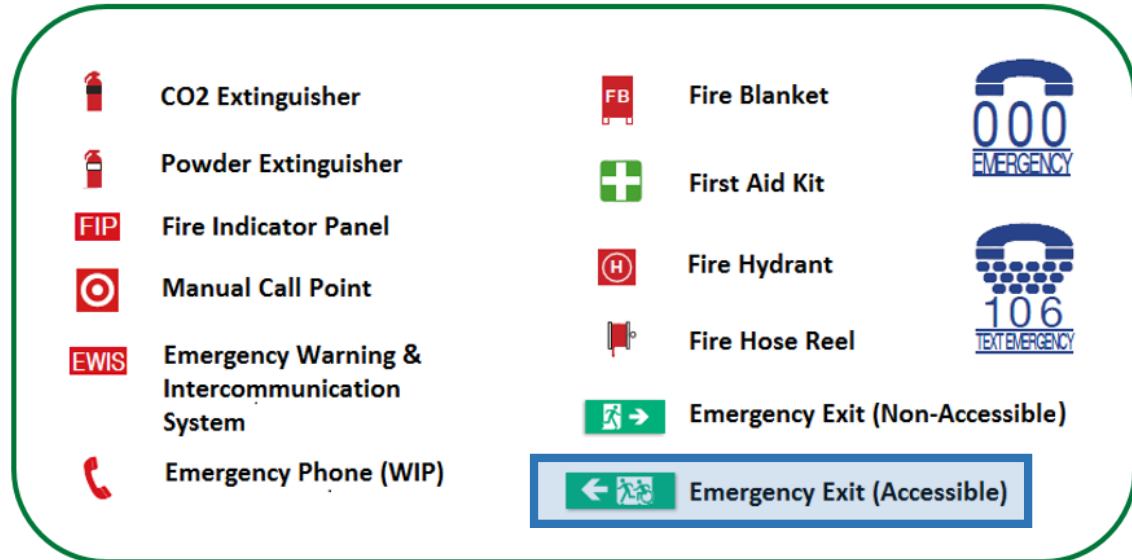
Accessible exit sign examples



Note - designs can be made to suit any specific requirements of an exit wayfinding strategy providing an accessible means of egress under a fire engineered performance-based solution



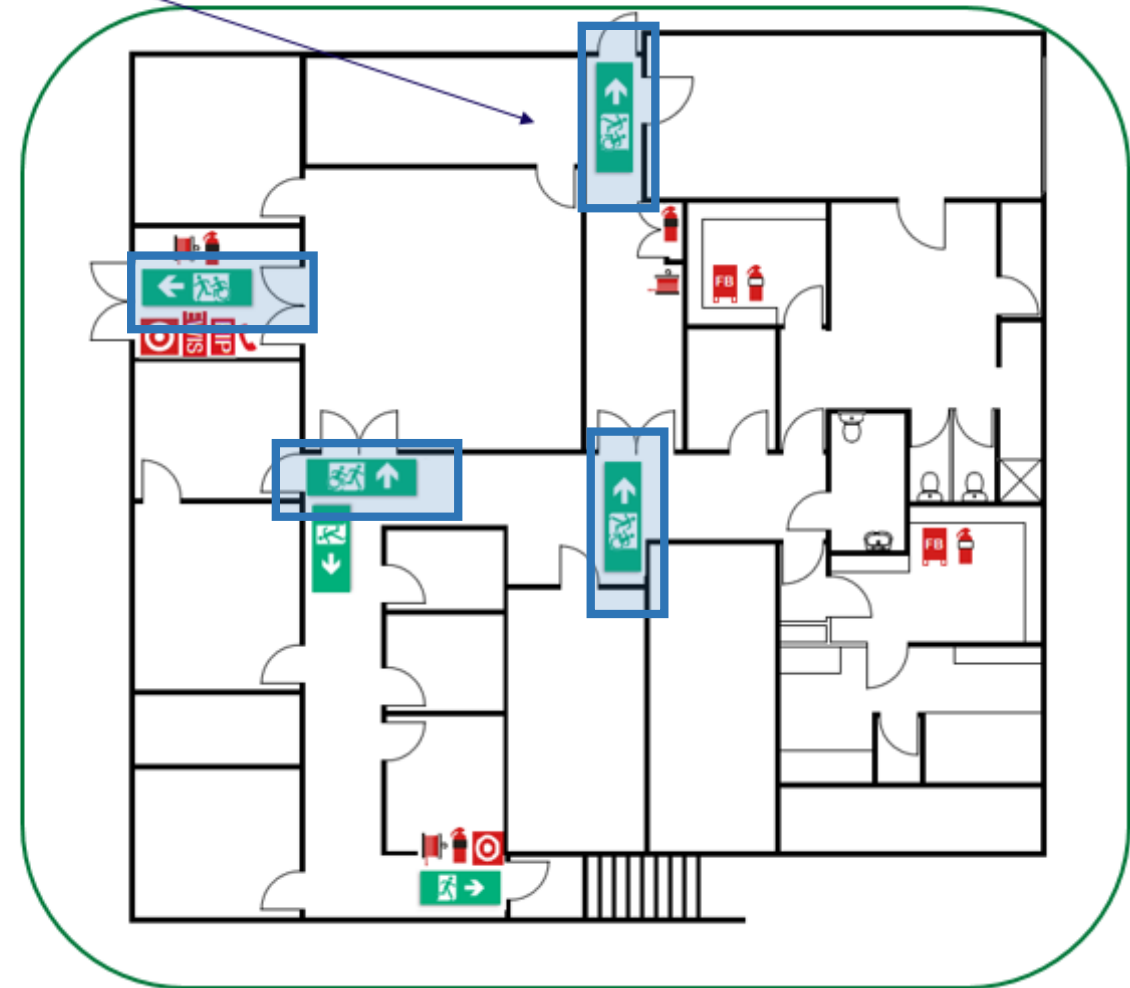
Evacuation diagram example



This requires adopting an integrated approach, which includes emergency management planning in the fire engineered performance-based solution

Evacuation Diagram

You are here





Website poll

- Results as at 20 September 2015:

- Yes – 84.37%
- No – 15.62%
- Maybe 0%

- Results as at 20 August 2016:

- Yes – 80.56%
- No – 16.67%
- Maybe 2.77%

(Over 2 years of data)

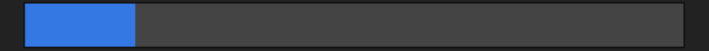


Should the image above be the new image to replace the Running Man on all exit signs on an accessible exit route?

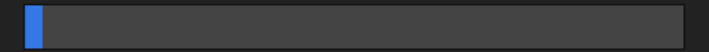
Yes 80.56%



No 16.67%



Maybe 2.77%



Like Share 0

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Conclusions



- We need a change in attitudes and legislation
- Accept new signs to identify parts of the accessible egress route
- Fire engineers and building surveyors to accept performance-based exit sign solutions



FREE Guidebook

2nd Edn released July 2016

www.accessibleexitsigns.com/evacuation-guide

Evacuation planning is a critical component of life safety, including evacuation for persons with disabilities

United States Access Board



Universal Design. Meets the Exit Sign.

Thank you

Please feel free to contact me to discuss this presentation, or The Accessible Exit Sign Project.

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