

The Centre for Excellence in Universal Design



Údarás Náisiúnta Míchumais
National Disability Authority





Universal Design

Universal Design in an Irish Context

NDA Conference 2012

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Senior Design Advisor, ICT

**Centre for Excellence in
Universal Design (CEUD)**

nDA

Contents

- Remit of the Centre
- Areas of work
- Getting motivated
- Our work through partnerships



Design Universal

Trinity, CEUD, Contents, motivated, Dublin, Getting, NY, UD, Environment, Normals, Broadcasters, Built, services, Manufacturers, Model, Development, Institute, Anthropometry, Suppliers, Promote, Areas, people, first, Knowledge, equipment, Education, Cambridge, SWiFT, Digital, Buffalo, using, Equipment, Engineering, Product, providers, http://www.universaldesign.ie/digitalTV, Council, Provide, Senior, Level, environment, Research, Products, Module, communicate, Tomorrow, Excellence, Service, Participate, Data, awareness, year, Policy, Aim, Stimulate, Awareness, million, Remit, TV, Work, Professional, Building, standards, Irish, education, ICT, Energy, partnerships, Centre, UK, College, improve, Ireland, NDA, Lived, content, Rating

Centre For Excellence in Universal Design (CEUD)

Standards

- Stimulate research
- Participate in Standardisation work nationally and internationally
- Provide advice to stakeholders
- Encourage compliance

Education and Professional Development

- Incorporate UD content into design curriculum
- Guidance on Universal Design for teaching, examinations and accreditation

Awareness

- Maintain a best practice database (website)
- Promote awareness and understanding

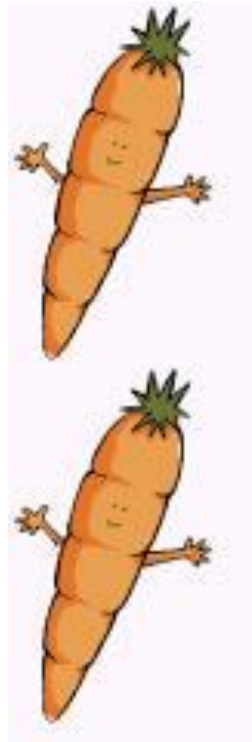


Stick - Key benefits of Universal Design - **Carrots**



Requirement

(Legal, organisational)

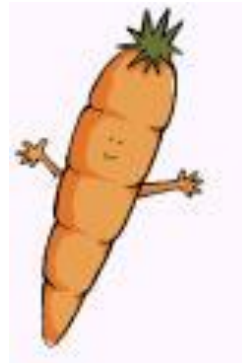


Increased reach

(increasing the effectiveness of your message, increased market)

Increased efficiency

(reduce costs of maintenance, support)



Social Responsibility

(Ethical, the right thing to do, leading from the front)

Universal Design





**Built environment
Products & Services
ICT**

3

Universal Design



1. INFORMATION AND COMMUNICATION TECHNOLOGIES



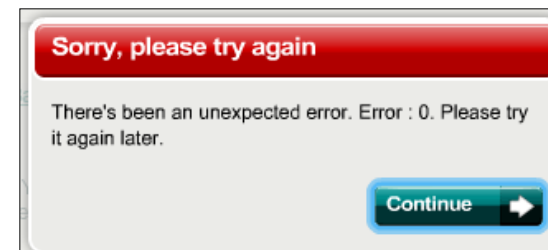
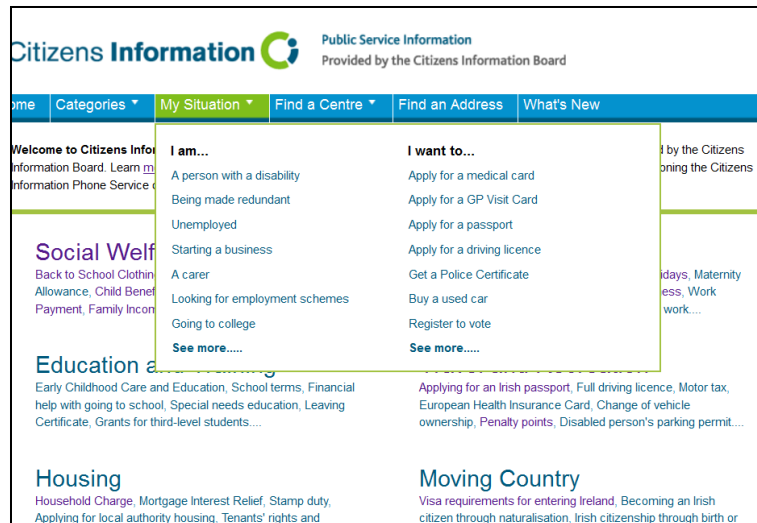
Universal Design Guidelines for Digital TV Equipment and Services

- Covers:
 - Consumer equipment
 - Programme Content
 - Customer Service
- Target audience
 - Broadcasters
 - Digital TV service providers
 - Manufacturers
 - Policy makers
- Aim: improve usability and accessibility of Digital TV content, services and equipment



Lived experience of people using public sector websites

- Research and guidance



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A sans serif font: Verdana

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The sans serif font with poor contrast

The serif font with poor contrast

Universal Design



Technology and Older People

- European Year of Active Ageing.
- Dublin City of Science 2012
- Saturday 2/3rd November 2012



Your new
caregiver?



ACTIVAGE SEMINAR
ST. JAMES'S HOSPITAL
SAT NOV 3RD 2012



2. BUILT ENVIRONMENT



Building for Everyone (BfE): A Universal Design approach

- **1 Book is now turned into 10 Booklets**
- **Informing about Universal Design**
- **Promoting Universal Design in the Built Environment**
- **Aimed at professionals working in the Built Environment & the general public**
- **Increase in technical drawings & photographs**



Building for Everyone: A Universal Design Approach

External environment and approach

1



Building for Everyone: A Universal Design Approach

Entrances and horizontal circulation

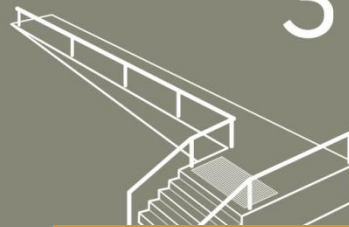
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Building for Everyone: A Universal Design Approach

Vertical circulation

3



Building for Everyone: A Universal Design Approach

Internal environment and services

4



Building for Everyone: A Universal Design Approach

Sanitary facilities

5



Building for Everyone: A Universal Design Approach

Facilities in buildings

6



Building for Everyone: A Universal Design Approach

Building types

7



Building for Everyone: A Universal Design Approach

Building management

8



Building for Everyone: A Universal Design Approach

Planning and policy

9



Building for Everyone: A Universal Design Approach

Index and terminology

10



Universal Design



Building for Everyone (BfE) has been revised to include Universal Design principles. This is the 3rd version, the 1st version was in 1998 with another revision in 2002.

‘Universal Design refers to the design and composition of an environment so that it can be accessed, understood and used to the greatest extent possible by all people, regardless of their age, size, ability or disability.’

Synopsis of the Disability Act, 2005

BfE references Part M 2010 ‘Access & Use’ Building Regulations and goes beyond.

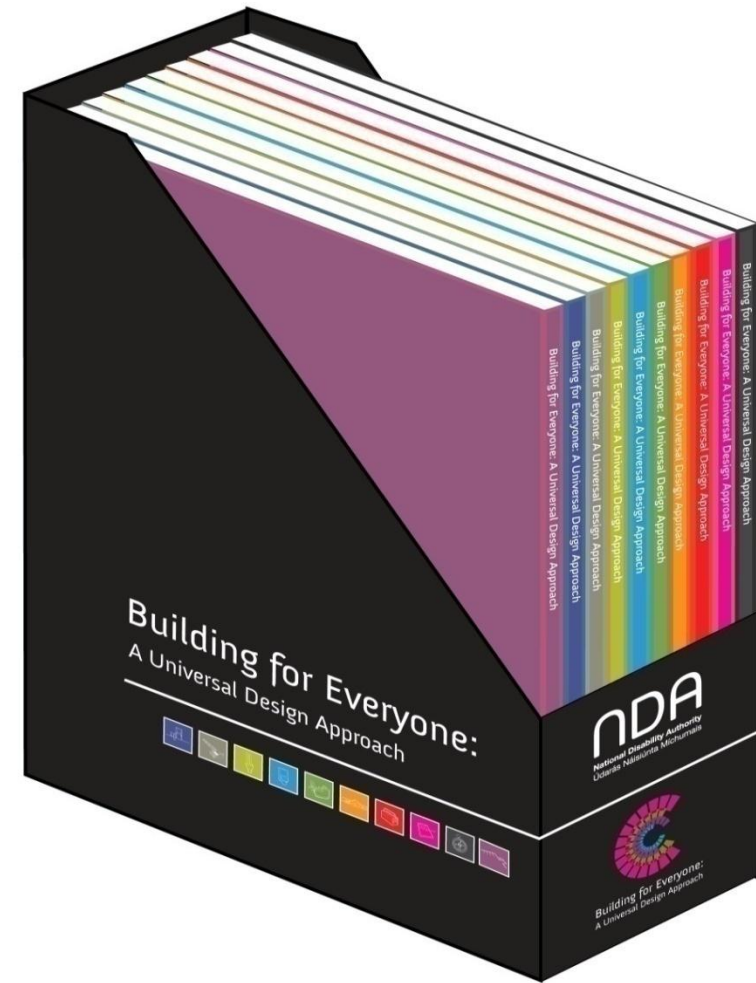
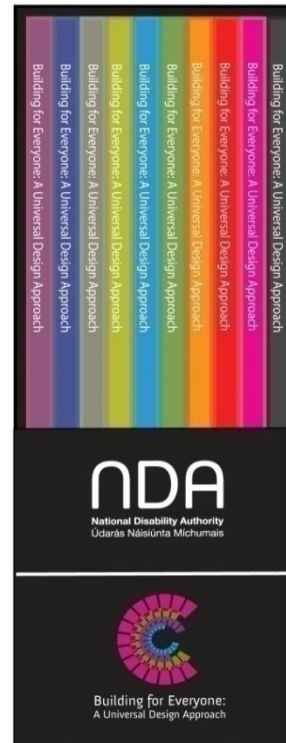
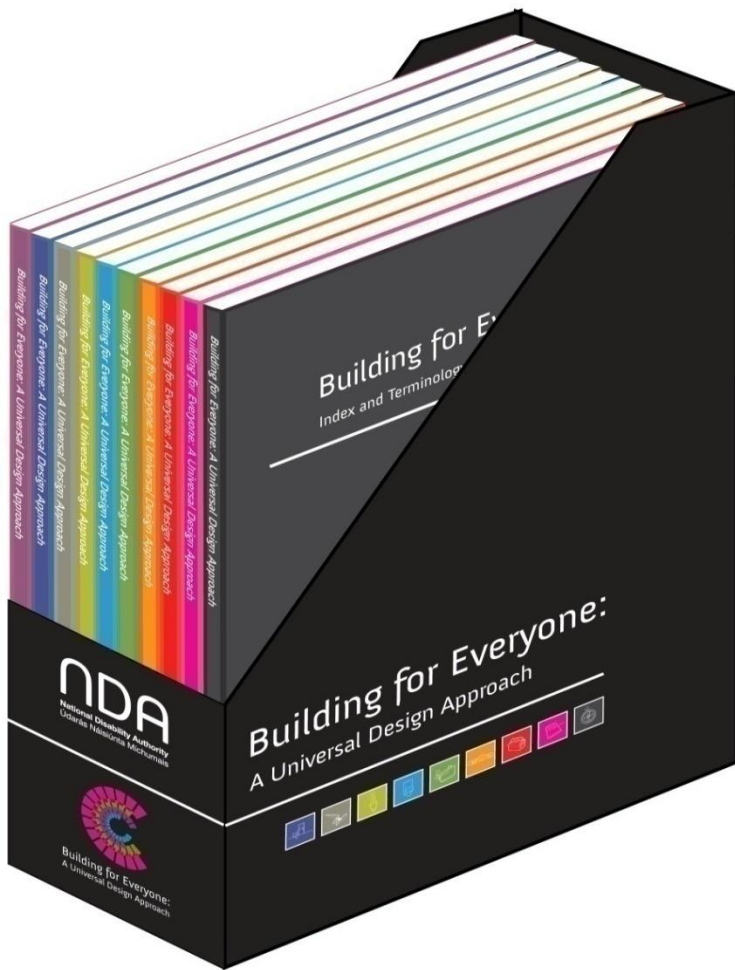
BfE is good practice.

Dimensions and references throughout BfE are based on combined guidance from many of the international standards and guidelines.

A range has been given instead of a single optimum dimension as this provides more flexibility to designers.



Free to download as accessible PDF's or hard copy collection from the
Centre for Excellence in Universal design
www.universaldesign.ie/buildingforeveryone



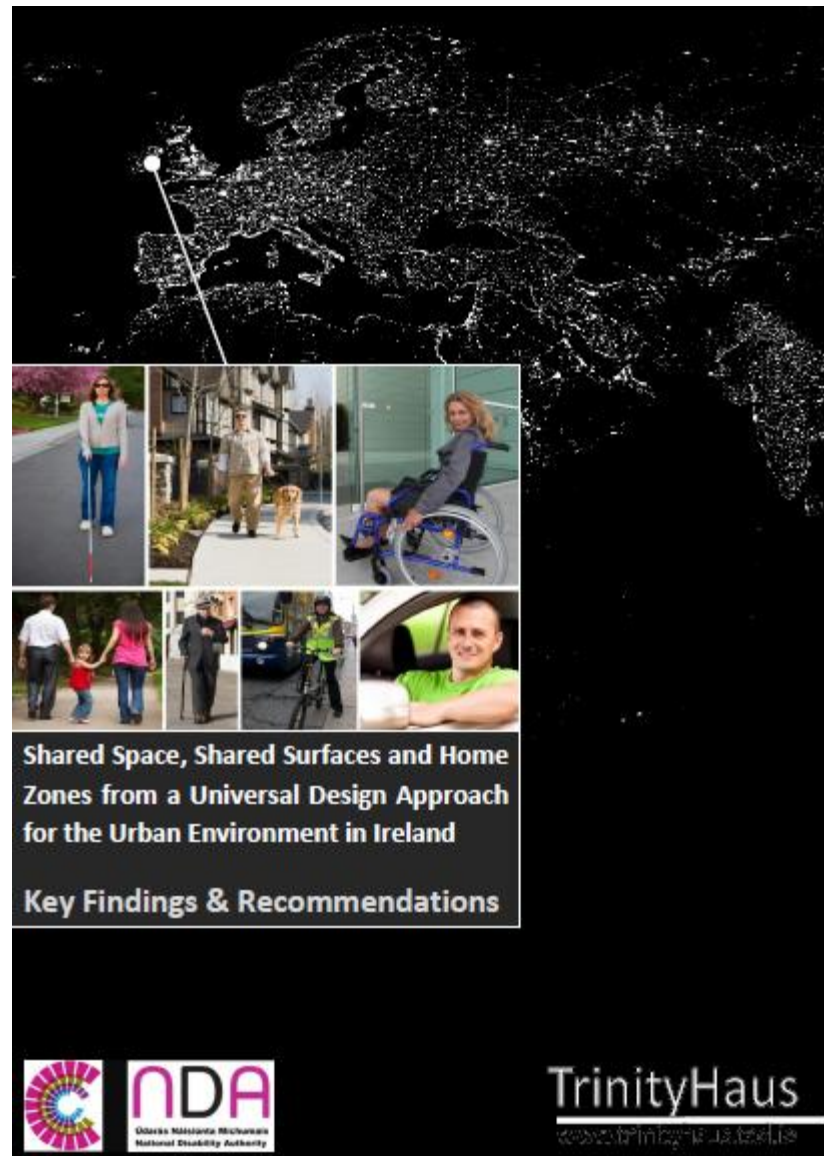
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Further Built Environment work CEUD is involved with in 2012 & beyond...

Shared Spaces, Shared Surfaces and Home Zones Research and Recommendations for Ireland



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Further Built Environment work CEUD is involved with in 2012 & beyond...

Centre for Excellence in Universal Design

Draft Guidelines Universal Design Homes for Ireland

August 2012



Research, Recommendations & Design Guidance for Dementia & Home design for Ireland looking at New Build and Retro-Fit Homes from a Universal Design approach – Tender Evaluation Stage

Research on Universal Design Educational Campuses across the Life-Cycle (UDLCEC) – Tender Evaluation Stage

Universal Design Homes (UDH) – Cost Benefit Analysis – Project Initiation Stage

Universal Design



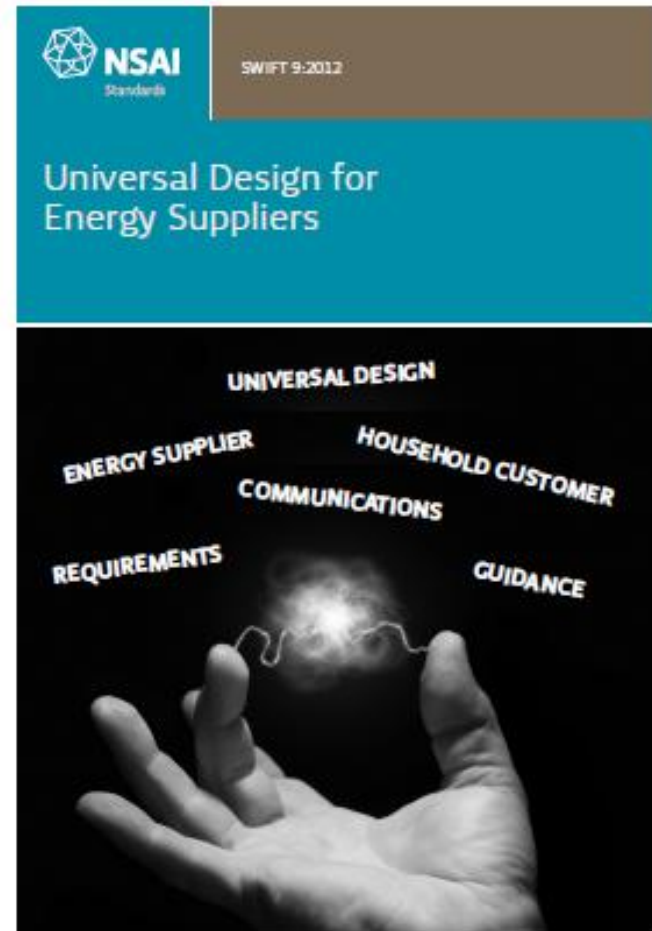
3. PRODUCTS AND SERVICES



SWiFT 9: Universal Design for Energy Suppliers

The NDA co-produced a world first standard on Universal Design.


Launched on 09-02-2012 the SWiFT 9 provides all Irish Energy Suppliers with practical methods to improve how they communicate with their 1.6 million customers.



Universal Design



Size Data for Universal Design in Ireland (Anthropometry Research, Penn State, USA)



UNIVERSAL DESIGN

DESIGNING FOR BODY SIZE AND SHAPE

Accommodation

Users that are able to interact with a design in the intended manner are said to be **accommodated**. Those for whom the design is uncomfortable, unsafe, or are otherwise unable to achieve the desired performance are said to be **disaccommodated**. One goal of Universal Design is to accommodate users regardless of body size and shape.

ADJUSTABILITY

Incorporating adjustability into a design is one method of accounting for body size and shape. For example, a



Institute of Designers in Ireland Universal Design Award



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EDUCATION

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Universal Design and the Irish Research Council

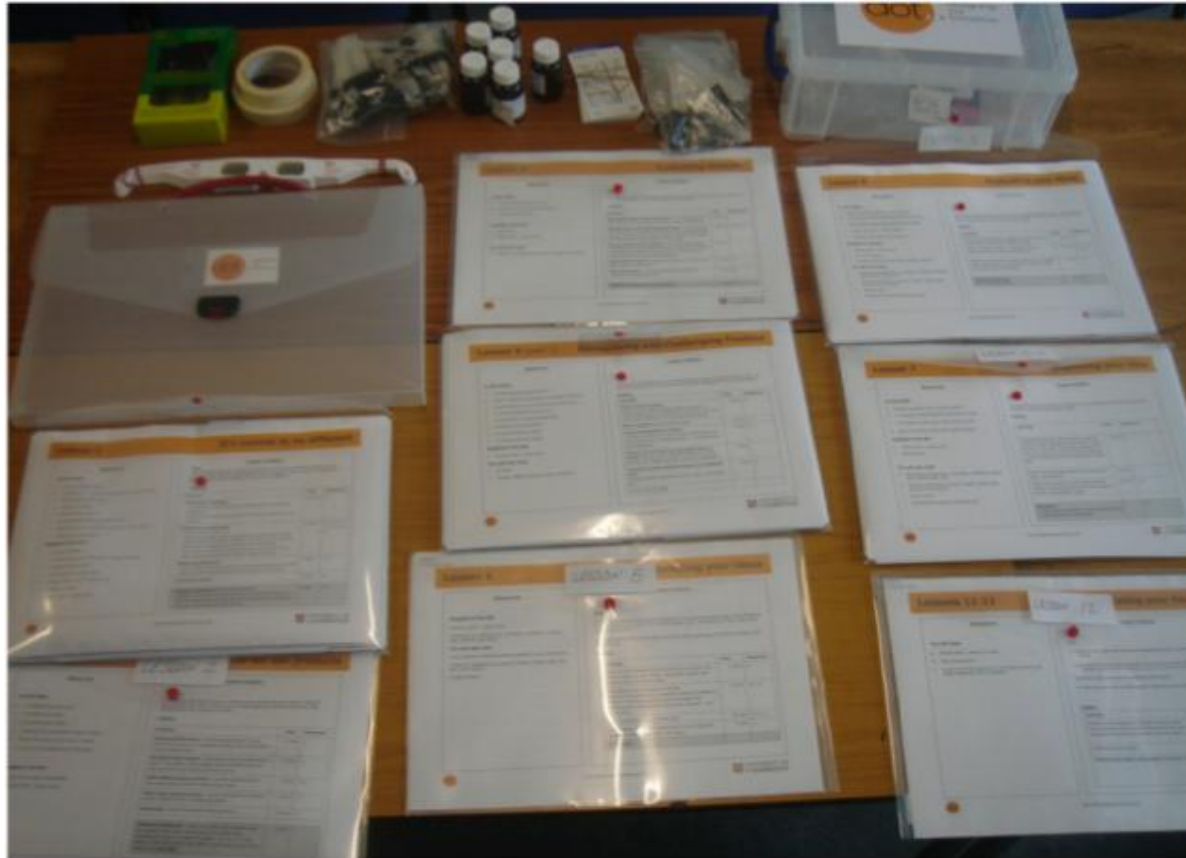
- Universal Design for Product Engineering Curriculum
(Centre for Bioengineering, Trinity College Dublin)
- Universal Design in the Need-to Knowledge (NtK)
Product Development Model, Knowledge Translation
(Dublin Institute of Technology, Univ of Buffalo at NY)
- Universal Design Building Rating System
(Trinity Haus – Trinity College Dublin)



Universal Design



Universal Design 2nd Level Irish Education Pilot Designing our Tomorrow (DOT) (Cambridge, UK)



UNIVERSITY OF
CAMBRIDGE



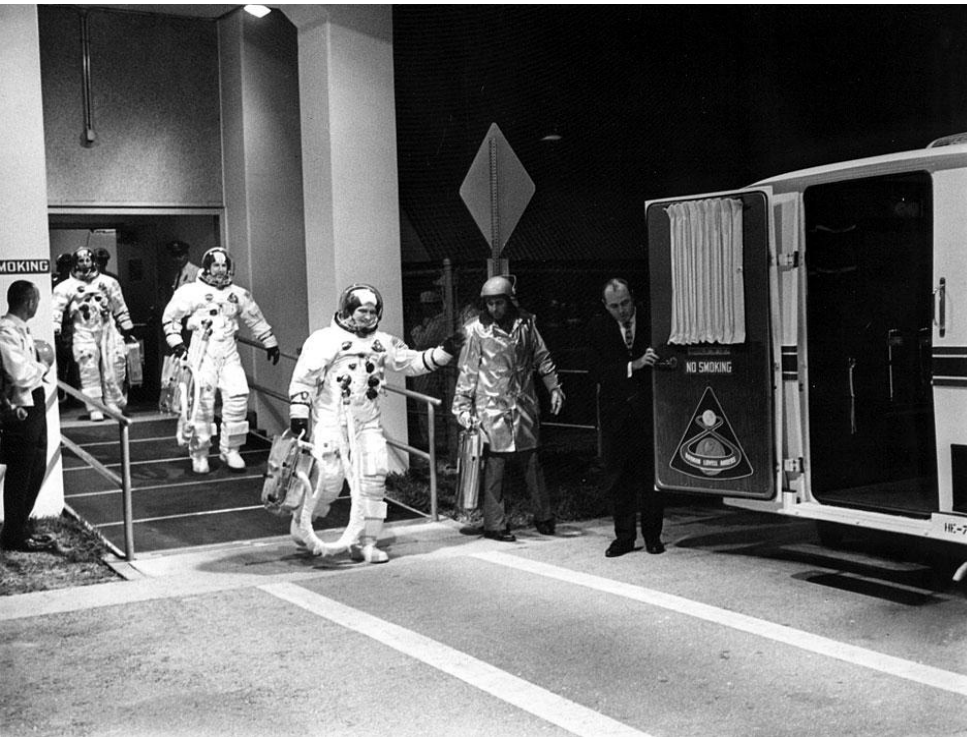
Universal Design 3rd Level Module for first year



Meet the Normals



Food for thought...it took 30,000 years to put wheels on suitcases -



2012 was the 40th anniversary of the wheeled luggage

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www.universaldesign.ie