Building Inclusive, Safe, Resilient & Sustainable City with Persons with Disabilities

HKCSS S+ Summit cum Expo 2024

Adoption of Universal Design Concept for Building Livable Community

2 May 2024

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Sustainable Development Goals (SDGs)

"World leaders have an unprecedented opportunity this year to shift the world onto a path of inclusive, sustainable and resilient development" - Helen Clark, UNDP Administrator.

At the United Nations Sustainable Development Summit on 25 September 2015, world leaders adopted the 2030 Agenda for Sustainable Development, which includes a set of 17 Sustainable Development Goals (SDGs) to end poverty, fight inequality and injustice, and tackle climate change by 2030.



What are the Sustainable Development Goals?

UN 2030 Agenda for Sustainable Development



SGD Goal 11: Sustainable Cities and Communities

Make cities and human settlements inclusive safe resilient sustainable

Goal 11. Make cities and human settlements inclusive, safe, resilient and sustainable

11.1: By 2030, ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums

11.2: By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons

11.7: By 2030, provide universal access to safe, inclusive and accessible, green and public spaces, in particular for women and children, older persons and persons with disabilities

Disability in the SGD's Indicators

United Nations - Convention on Rights of Persons with Disabilities (UN-CRPD)

- The UN Convention is intended as a *human rights* instrument with an *explicit, social development dimension* (50 Articles)
- Adopted by General Assembly on *13 December 2006* at the UN Headquarters in New York, and entered into force in *3 May 2008*

International Convention

191 Ratifications to the Convention (*China - 30/3/2007*) *Hong Kong & Macau*

164 Signatories of the Convention (China - 1/8/2008) Hong Kong & Macau

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104 Ratifications to the Optional Protocol

94 Signatories of the Optional Protocol

UN - CRPD Latest Development May 2024

UN Convention on Rights of Persons with Disabilities

Adopted by UN GA 2006, Entry into force 2008

The Convention prohibits discrimination against persons with disabilities in all areas of life

•Article 2: Definition - Universal Design (*Inclusive Design*)

•Article 9: Accessibility

•Article 30: Participation in Cultural Life, Recreation, Leisure & Sport

International Convention UN-CRPD

UNIVERSAL DESIGN

Making design accessible to everyone in society

7 PRINCIPLES OF UNIVERSAL DESIGN:





Flexibility



nple &



information

Tolerance



effort



Size & space

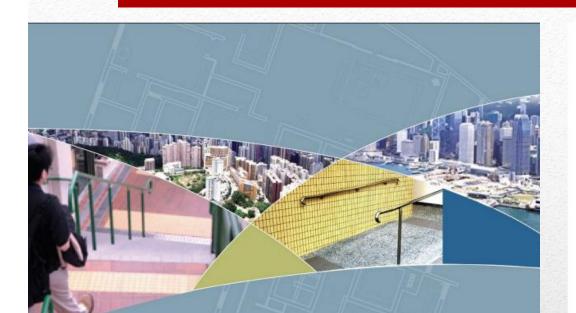
- Hong Kong Planning Standards & Guidelines (HKPSG) July 2022
 《香港規劃標準與準則》July 2022
- Building (Planning) Regulations B(P)R 1984
 《建築物(規劃)條例》BD DM: BFA2008/21
- Transport Planning Design Manual (TPDM) Vol. 6, Chpt. 8: Facilities for PwDs 2018

Hong Kong Regulations

Buildings Department

- Design Manual Access for the Disabled 1984
- DM Barrier Free Access 1997《設計手冊1997》
- DM Barrier Free Access 2008/2021《設計手冊2008/21》

Hong Kong Regulations



DESIGN MANUAL : BARRIER FREE ACCESS 2008 (2021 EDITION)



Design Manual Barrier Free Access 2008 (2021 Edition)

First issue	:	December 2008
This revision	:	December 2021





Outdoor Barriers





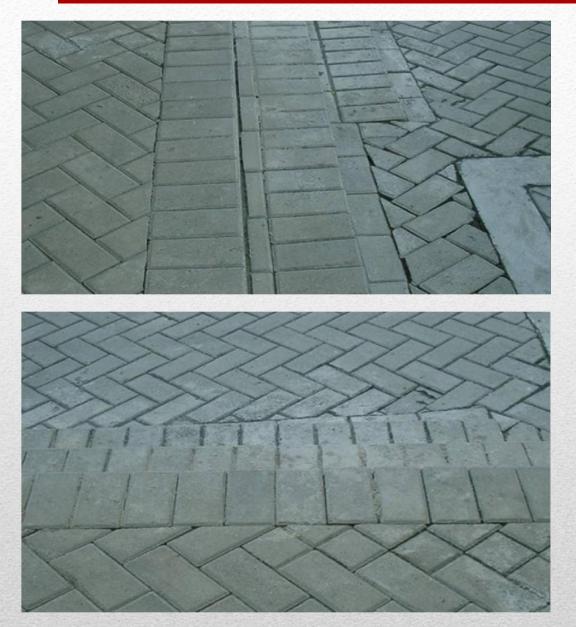


Outdoor Barriers - Pedestrian Crossings and Paving





Physical Barriers - Result of Poor Designs



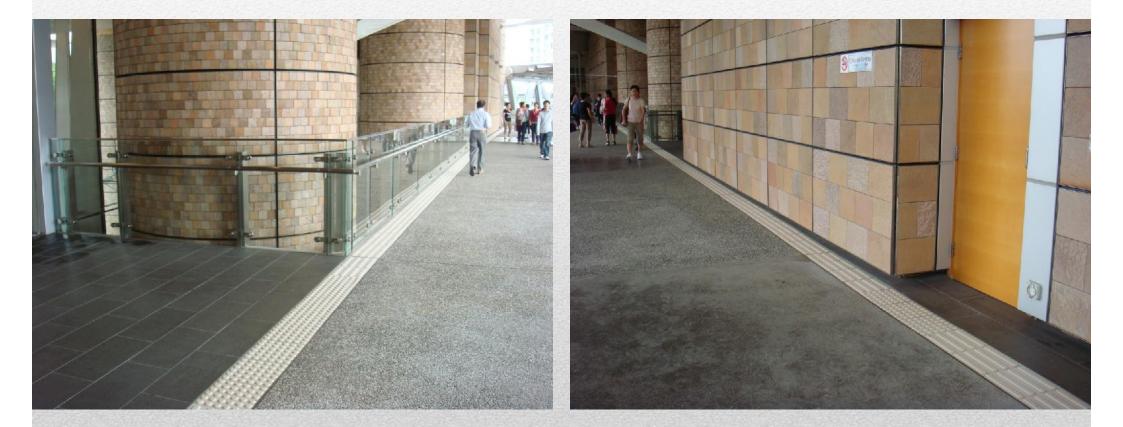


Barriers to Visual Impaired



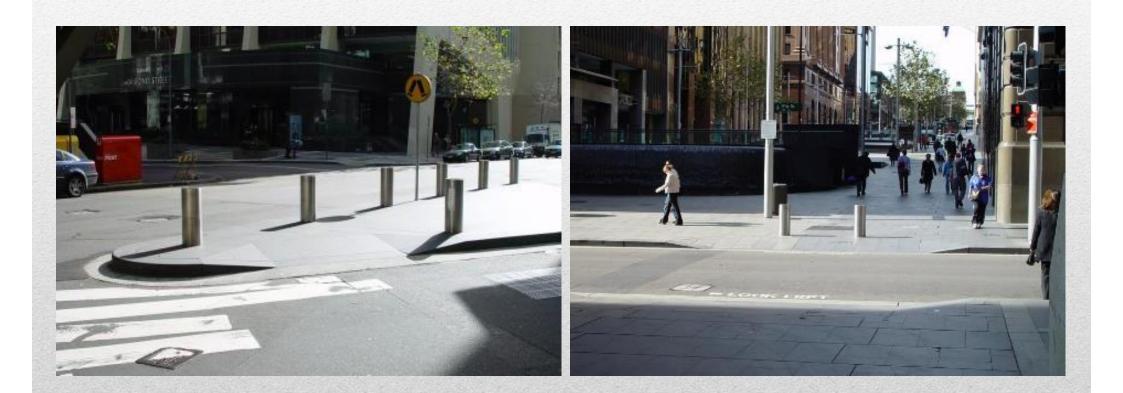
Barriers to Toilets

Building Professionals need to be More Socially Responsible !!!



Duty & Responsibility

Universal Accessible Inclusive & Safe City



Accessible Public Domain



Well Defined & Marked Pedestrian Crossings





Speed Table provide level pedestrian crossing



Accessible Public Spaces - Yokohama



Pedestrian Crossings

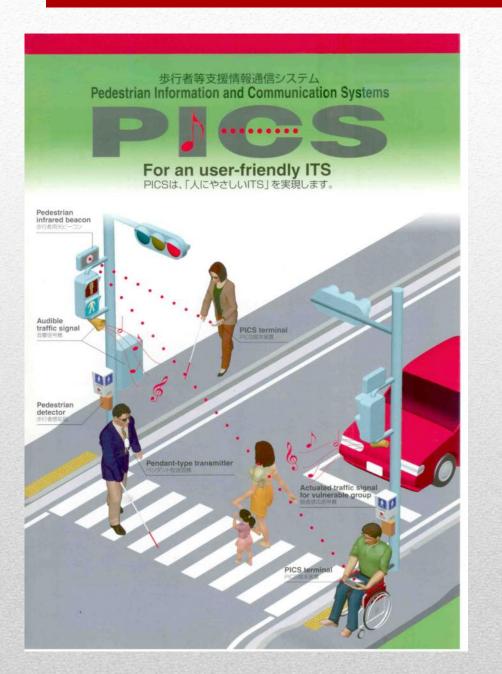


Braille Information to Handrails





Inclusive Public Toilet



Various Systems of PICS PICSを構成する各種システム

Audible traffic signal 音響信号機



Supports and ensures the safety of pedestrians while crossing intersections by informing pedestrians of green light by voice and by guiding visually impaired pedestrians through intersections. Another type of audible traffic signal called "simplified audible traffic signal" informs of green light right after it changes from red by voice and is designed for use at minor intersections.

歩行者の背信号を音声で知らせ、これにより目の不自由な歩行者を誘導し、交差点構新時における安全の確保を支援します。また 小さな交差点用として背信号の開始時のみを音声で知らせる「職易型音響信号機」もあります。



Actuated traffic signal for vulnerable group 弱者感応信号機

Enables handicapped people to cross intersections without hurry by extending time for green light for pedestrians when the pedestrians press their designated pushbutton device or when a radio wave is received from their pendant-type transmitters.

専用の押水タンを押すか、ペンダント製活但機からの電波を受信したときに、通常よりも歩行者の貴盛号を証拠させ、ゆべりと交差 点を積新することができます。



Actuated traffic signal for pedestrians 步行者感応信号機

An user-friendly traffic signal not only for people but also for vehicles, detects the number of pedestrians via a pedestrian detector and extends or shortens lime for green light for pedestrians accordingly to help ease traffic congestion.

歩行者感知識で歩行者の量を感知することにより、歩行者の背信号を証長・拒領するもので、渋滞の緩和にも役立ち、人だけではな く単にもやさしい信号機です。



PICS terminal with the use of pedestrian infrared beacon[®] 歩行者用光ビーコンを利用したPICS端末装置⁴

Terminal which provides guidance by voice 音声による本内装置 Transmits information of intersection names and traffic lights via pedestrian beacon to terminals held by visually impaired pedestrians by voice.

目の不自由な歩行者の所持する端未装置に対して歩行者用光ビーコンから交差点名称や信号機の状態を送信することにより、これ らの情報を端未装置から音声で案内するものです。

Terminal which provides guidance by image 缺像による案内装置

Transmits information of intersection names and route guidances via pedestrian beacon to terminals held by pedestrians by image. Controls actuated traffic signal for vulnerable group in place of designated pressbutton device and pendant type transmitter.

歩行者の所持する場末装置に対して歩行者用先ビーコンから交差点を制や造案内情報等を送信することにより、これらの情報を総 末装置から映像で案内するものです。また、専用の押ボタンやペンダント型送信機の代わりに端末装置から将著感染信号機を振移 することも可能です。

(*)is a system currently under research. (*)印は、現在研究中のシステムです。



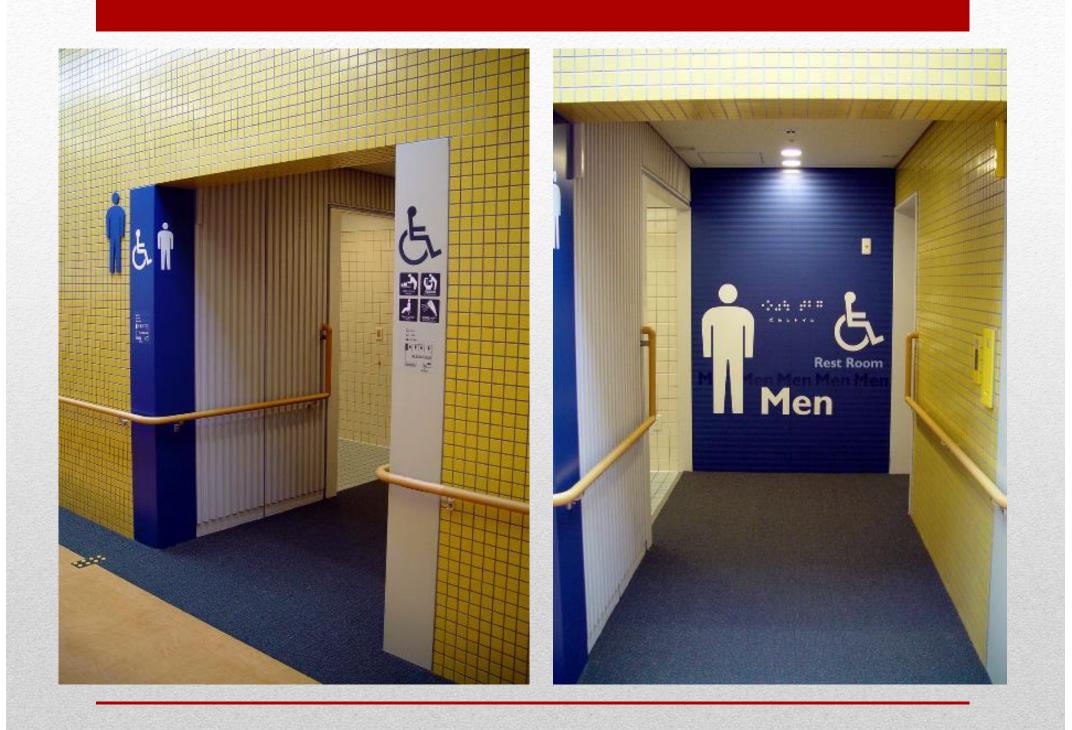
社団法人新交通管理システム協会 〒162-0843 東京都新部区市谷田町二丁目6番 エアマンズビル市谷湾 Tel: 03-3235-6520 (代) Fax: 03-3235-6522 http://www.utms.or/go 転転:警察庁

Wayfinding with PICS







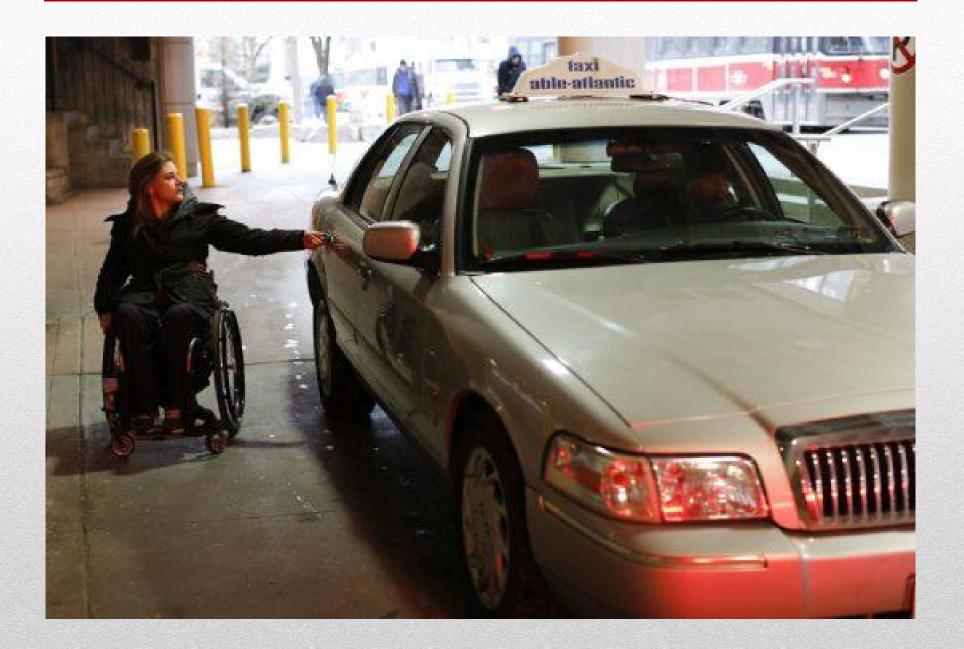


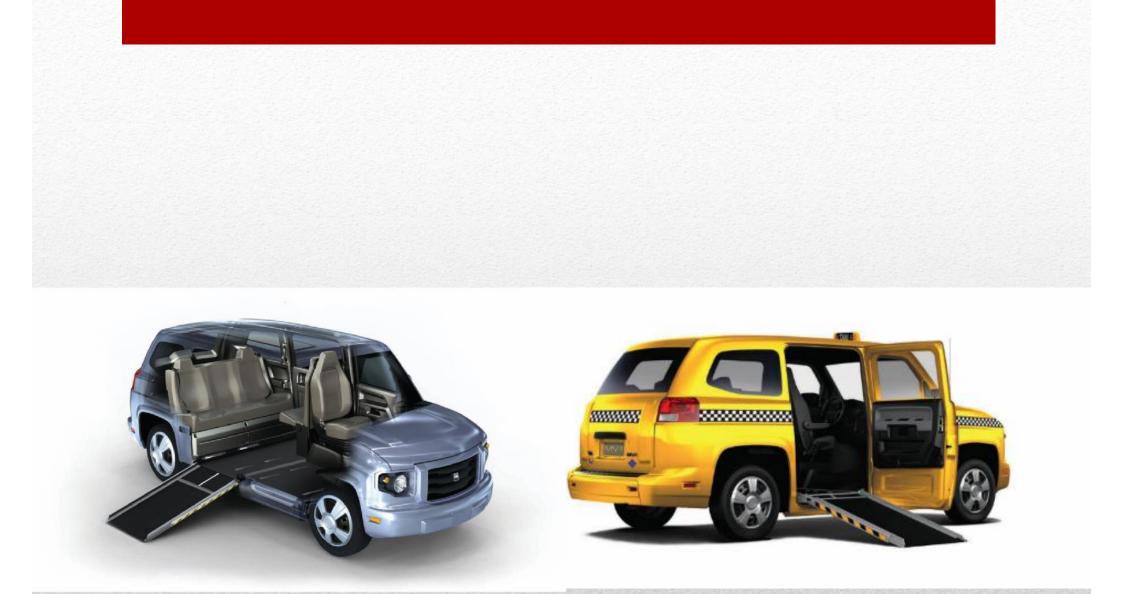












Accessible Public Taxicabs



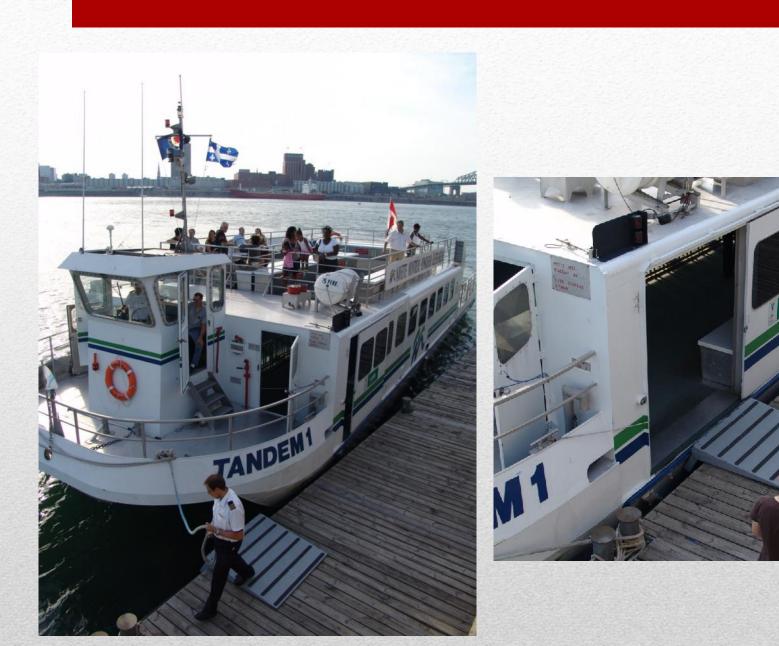




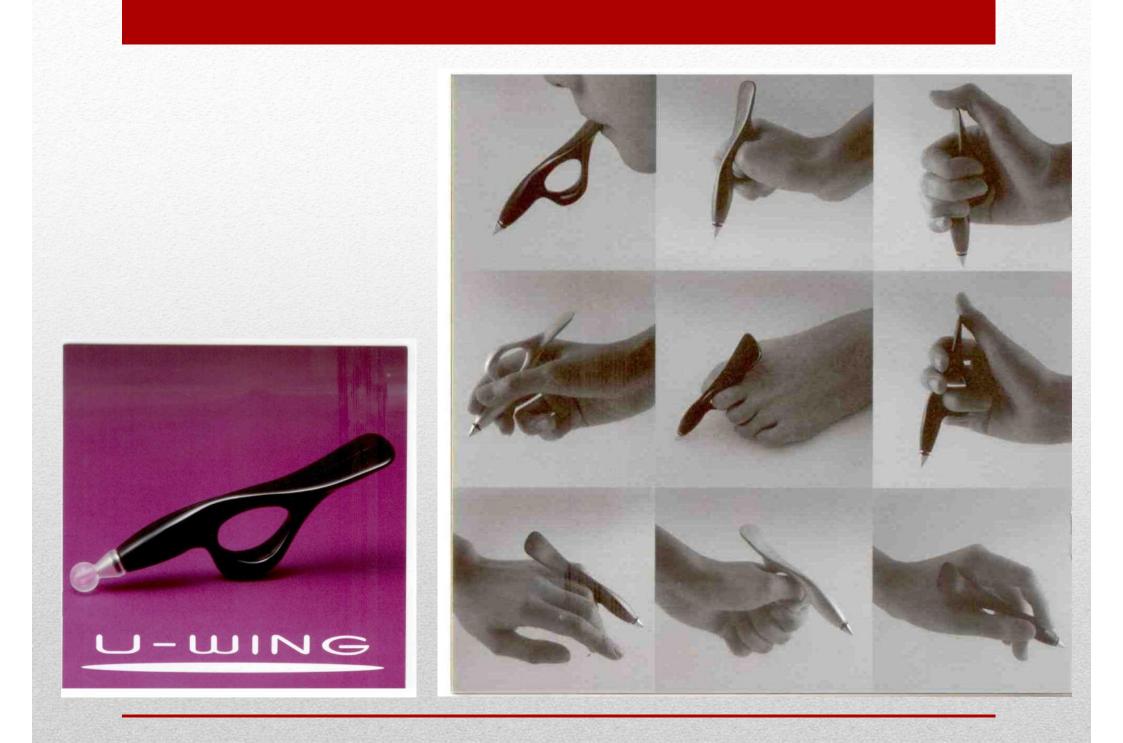
Level Access - Platform to Train



Universal Accessible Cable Car



Marine Transportation



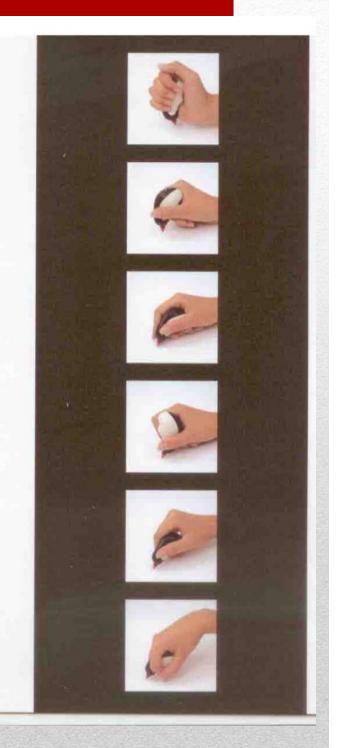




進化していくかたち

初期のハンディ・バーディ はできるだけ手の平に正 確にフィットする形状を 追求したデザインでした。

今回、あらためてデザイ ンを見直したハンディ・ バーディ(ミニィ)は利 き手を選ばない左右両用 のデザインを採用し、よ り自然な握り心地を実現 すべく、自由でありつつ も完成度の高いエルゴノ ミクスを追求しました。



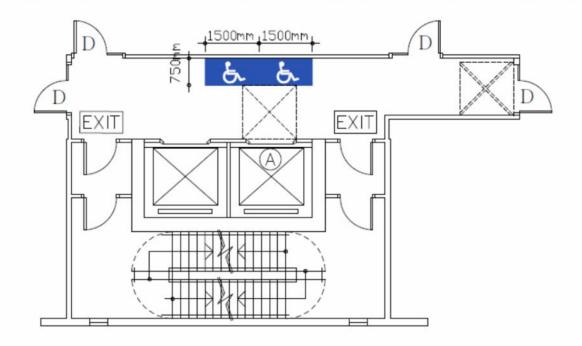
SAFETY Access Egress Evacuate

- Emergency Evacuation
- Fire in Buildings
- Natural Disasters



• **DiDRR** (Disability-inclusive Disaster Risk Reduction)

Area of Rescue Assistance





Lobby to fireman's lift of minimum dimensions of 1.5m to be used as wheelchair manoeuvring space



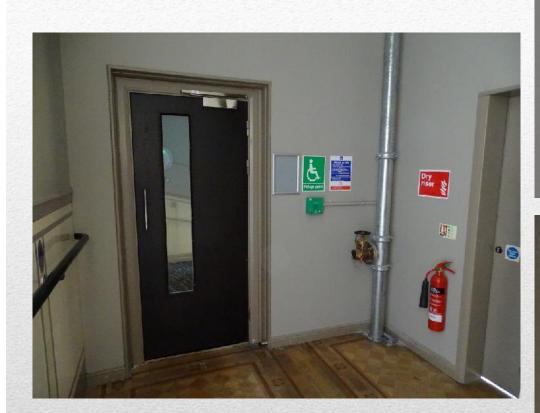
1.5m x 1.5m wheelchair manoeuvring space at 3.5m deadend



Temporary refuge space (0.75m x 1.5m) in fireman's lift lobby

D

Fire rated door for accommodation



Area of Rescue Assistance





Emergency Stairway Descent & Evacuation







International Fire Safety Pictogram - Assembly Points



Inclusive Play Space – Tuen Mun Park Hong Kong

Essential Principles



for Built Environment Professionals

Teaching and Learning Briefing Guide

Bringing inclusive design into built environment education

July 2017













Teaching Universal Design

Global Examples of Projects and Models for Teaching in Universal Design at Schools of Design and Architecture.

> By B. Kennig and C. Ryhl For AAoutils project

> > European Commission

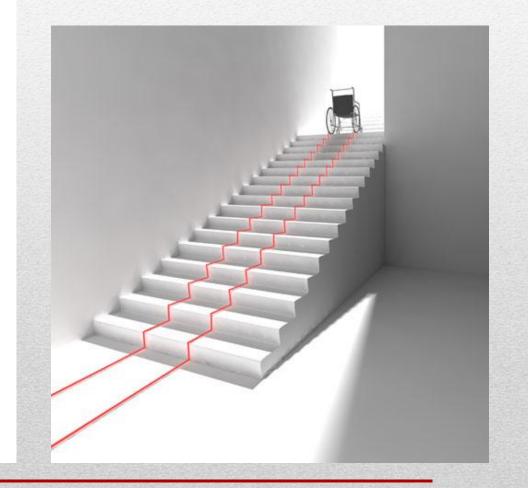


Education and Culture

Leonardo da Vinci Programme

Design for All

from school to practice





MALAYSIAN STANDARD

MS 1184:2014

Malaysian Standards

Universal design and accessibility in the built environment - Code of practice (Second revision)

ICS: 25.060.10

Descriptors: universal design, disabled person, embulant desabled, access, landacape, sign and symbol, facility, lift, requirement.

© Copyright 2014 DEPARTMENT OF STANDARDS MALAYSIA MS 1184: 2014 Universal Design and Accessibility in Built Environment Code of Practice

(Second Revision) 4 Nov 2014

Malaysian Standards

CODE ON ACCESSIBILITY

IN THE BUILT ENVIRONMENT 2019

Singapore Code Building and Construction Authority



Code on Accessibility in the Built Environment 2019

Singapore Code

6 150 2006 - All rights reserved

IS O/TC 59/SC 16 N N 63

Date: 2008-12-12 DRAFT PROPOSAL 3⁷⁴ ISO/CD 21842 ISO/TC \$9/SC 16/WG 1 N 101

Secretariat: AENOR

Building construction — Accessibility and usability of the built environment

Construction - Assessibilité et fauilité d'utilisation de l'environnement bétiment

This document is not an ISO international Standard. It is distributed for review and comment. It is subject to change without notice and may not be referred to as an international Standard.

Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

Document type: International standard Document subtype: if applicable Document stage: Committee Stage Document language: E ISO Standard: 21542

Building Construction -Accessibility and Usability of the Built Environment 2011/2021

New Section:

• Fire Safety for All to High Rise Buildings

• Tactile Floor Guidance System

International Standards - Five Year Review 2017



Action Plan

Norway universally designed by 2025

The Norwegian government's action plan for universal design and increased accessibility 2009-2013



Norway universally designed by 2025

- Laws, Regulations, Standards & Guidelines
- New Constructions & Existing Buildings
- Exterior, Streets & Footpaths, Seamless Connectivity
- Building Interior, Facilities and Features
- Public Transportation (Air, Sea & Land)
- Fire Safety (Egress & Emergency Evacuation)
- Playground & Public Open Spaces (Indoor & Outdoor)
- Education, Training & Public Awareness
- Policy & Implementation

Building Inclusive Safe Resilient & Sustainable City



in recovery, rehabilitation and reconstruction

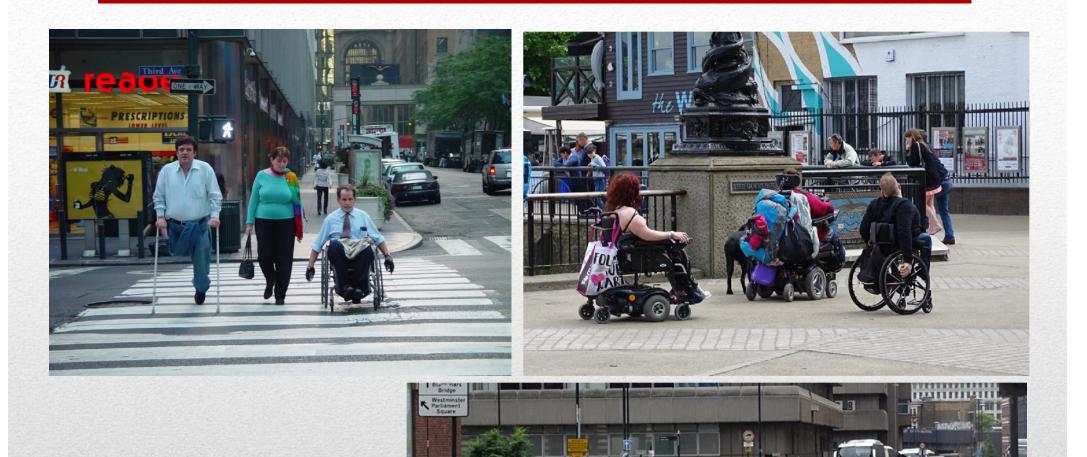
2017 | Consultative version

Build Back Better

Leave No One Behind

In support of the Sendai Framework for Disaster Risk Reduction 2015 – 2030





Inclusive for All







Thank You

Ar. Dr. Joseph Kwan MH DUniv

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