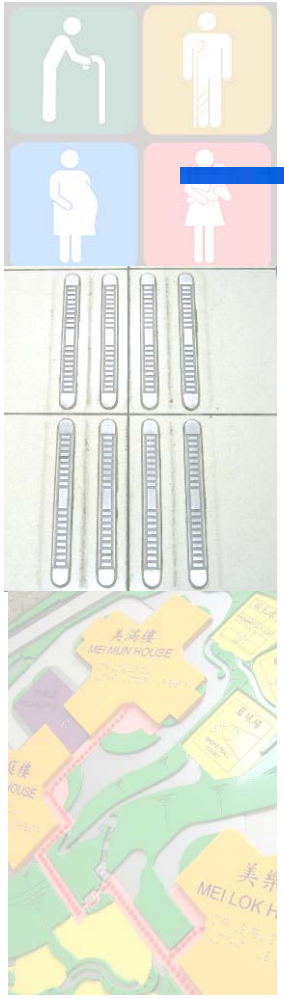


CB(1) 2018/09-10(01)

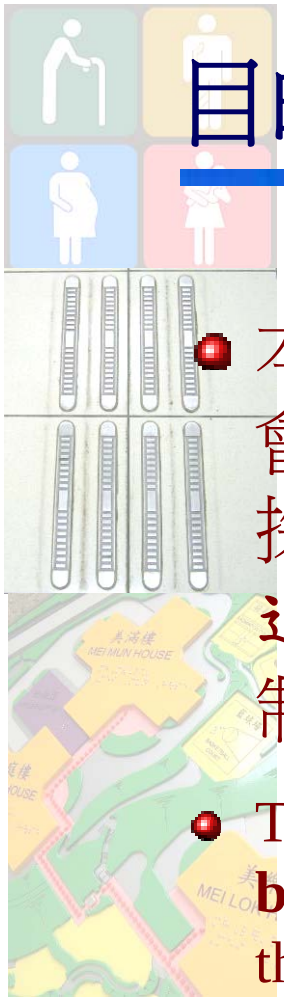
立法會房屋事務委員會
Legislative Council Panel on Housing

在新建公共屋邨
提供無障礙通道的新措施

New Initiatives for Barrier Free Access in New Public Housing Estates

24.05.2010

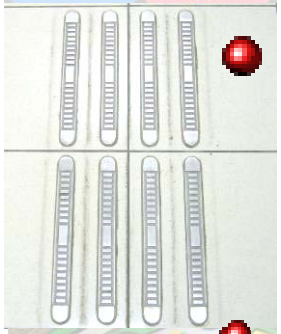
目的 Purpose



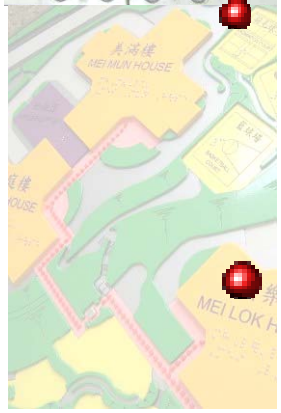
- 本文件旨在向委員報告香港房屋委員會（房委會）在新建的公共租住房屋屋邨（公共屋邨）所採取**暢通無阻的新設施**，以配合**《設計手冊：暢通無阻的通道2008》**（《設計手冊》）訂明的強制性設計規定。

- To inform Members of the implementation of **new initiatives for barrier free access** in new public rental housing (PRH) estates by the Hong Kong Housing Authority (HA) in accordance with the obligatory design requirements of the **Design Manual: Barrier Free Access 2008** (the Design Manual).

背景 Background



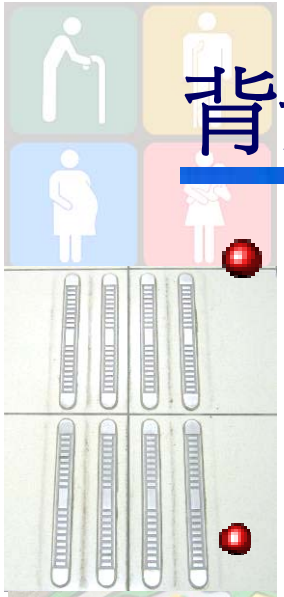
- 自2002年起，房委會已在新建的公共屋邨採用**通用設計**的概念，以締造傷健一家、和諧共融的生活環境。



- Since **2002**, the HA has been implementing a **Universal Design** concept in PRH estates to provide a harmonious living environment for people with different physical abilities.

- 屋宇署於2008年11月公布《設計手冊》的更新版本，並將它納入《建築物條例》內。

- In **November 2008**, the Buildings Department (BD) promulgated an updated version of the Design Manual, which has been incorporated into the Buildings Ordinance (BO).

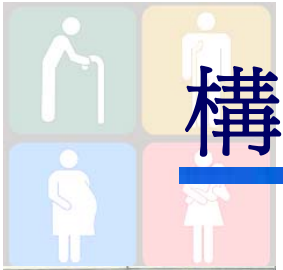


背景 Background

- 房委會雖然獲豁免受《建築物條例》的規管，但轄下所有新建的公屋發展項目，均遵守該條例實施的所有設計規定。
- Although the HA is exempted from the control of the BO, the design requirements under the BO have been implemented for all new public housing developments.

- 考慮到環保效益，並爲提高暢道通行，我們研發了**創新設計**，包括**觸覺引路徑連多能感應地圖**，以及**新的照明設計**。

- **Innovative design solutions** including **tactile guide path system with multi-sensory map** and **new lighting design** are adopted, having regard to environmental-friendliness and to enhance universal accessibility.



構思創新的新設施 New Initiatives

I. 觸覺引路徑連多能感應地圖

2006年8月開始在新設計的公共屋邨裝設

I. Tactile Guide Path System with Multi-sensory Map

implemented in new PRH estates since August 2006

II. 新照明設計

自2008年12月開始在新設計的公共屋邨應用實施

II. New Lighting Design

implemented in new PRH estates since December 2008

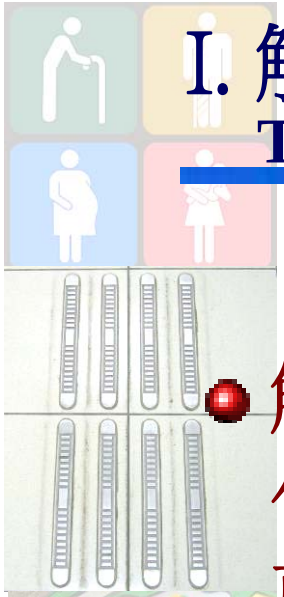
I. 觸覺引路徑連多能感應地圖
Tactile Guide Path System with Multi-sensory Map

爲令視障人士可在公共屋邨內獨立地前往目的地

(雖然就住宅大廈而言，這並不是一項強制性的設計規定)

To assist visually impaired persons to travel independently within the PRH estates

(although this is not an obligatory design requirement for domestic buildings)



I. 觸覺引路徑連多能感應地圖
Tactile Guide Path System with Multi-sensory Map

- 觸覺引路徑由公共屋邨主要入口通往各座住宅大廈入口、屋邨管理處、以及其他主要屋邨設施（例如商場、社區中心、巴士總站等）。

- Tactile guide paths are provided to connect the main estate entrances to the entrances of domestic blocks, estate management offices and other major estate facilities such as commercial centres, community centres, bus terminals etc.

I. 觸覺引路徑連多能感應地圖
Tactile Guide Path System with Multi-sensory Map

石硤尾第1期的觸覺引路徑
Tactile Guide Path for Shek Kip Mei Phase 1

連接往香港盲人輔導會的觸覺引路徑
Connect to the tactile guide path leading to the Hong Kong Society for the Blind

連接往石硤尾港鐵站出口的觸覺引路徑
Connect to the tactile guide path leading to Shek Kip Mei MTR Station

I. 觸覺引路徑連多能感應地圖
Tactile Guide Path System with Multi-sensory Map

- 多能感應地圖裝設在新建的公共屋邨的各個重要地點，協助有需要的人士辨別方向，並查找通往住宅大廈及主要屋邨設施的觸覺引路徑。
- The multi-sensory maps installed at strategic locations in the new PRH estates to assist people to orientate and identify the tactile guide path leading to the domestic blocks and the major estate facilities.

位於南昌街的
屋邨入口
Estate entrance at
Nam Cheong Street

位於偉智街的
屋邨入口
Estate entrance at
Wai Chi Street

石硤尾第1期的觸覺引路徑
Tactile Guide Path for Shek Kip Mei Phase 1

I. 觸覺引路徑連多能感應地圖
Tactile Guide Path System with Multi-sensory Map

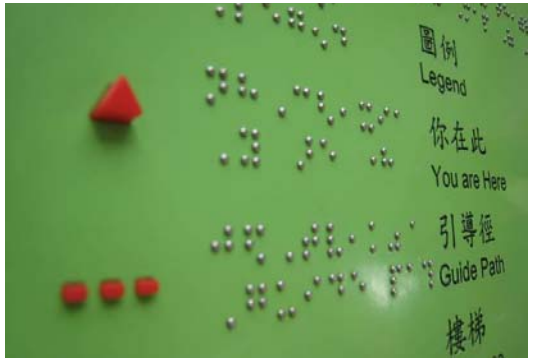
- 多能感應地圖提供視覺、觸覺和話音訊息，不論年紀或視力，任何人士均可借助該地圖查找路向。
- The multi-sensory maps provide visual, tactile and voice messages to provide directions for all people, regardless of their age or quality of vision.

傳統地圖讓視力正常人士容易閱覽

Conventional map layout easily read by people with normal vision

觸覺和點字訊息爲喪失視力的人士而設

Tactile and Braille message for people with no vision

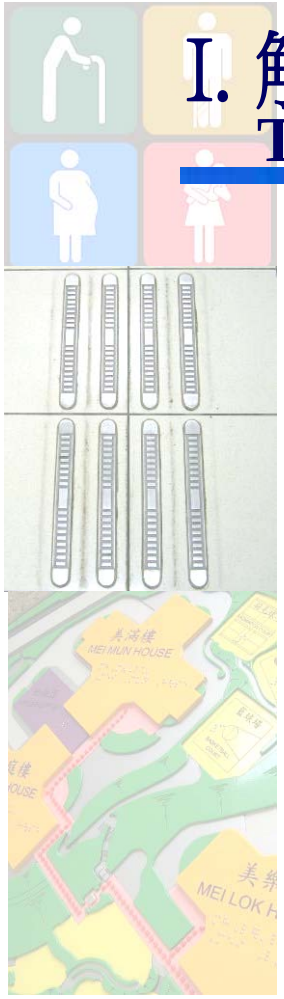


高對比顏色展示的地圖有助視力欠佳的人士閱覽

High contrasting colour display for the low vision

按鈕啓動的話音訊息，爲不諳點字的失明人士而設，提示觸覺引路徑的路向，協助他們前往屋邨主要設施 。

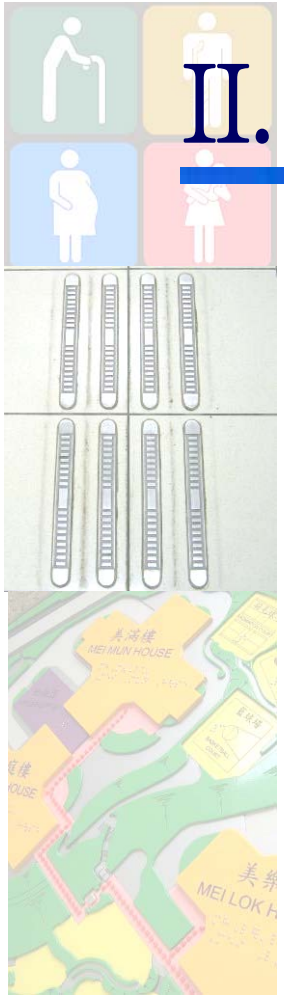
Voice messages activated by pressing the button to indicate the route of tactile guide path to major estate facilities for people who cannot read Braille



I. 觸覺引路徑連多能感應地圖
Tactile Guide Path System with Multi-sensory Map

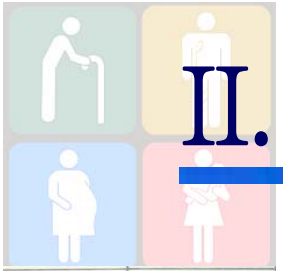
- 視障人士如何使用觸覺引路徑和多能感應地圖，安全及有效地由石硤尾港鐵站出口返回居住的大廈。
- Visually impaired person using the tactile guide path system with multi-sensory map to travel safely and effectively from Shek Kip Mei MTR Station to the domestic block

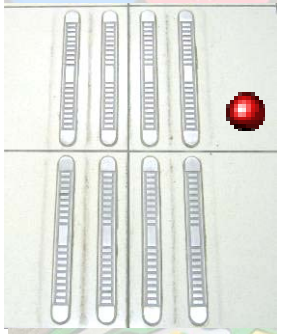
石硤尾第1期 **Shek Kip Mei Phase 1**



II. 新照明設計 New Lighting Design

- *為求在節約能源及《設計手冊》強制規定的照明光度之間取得平衡*
- *To strike a balance between energy conservation and mandatory illumination required by the Design Manual*





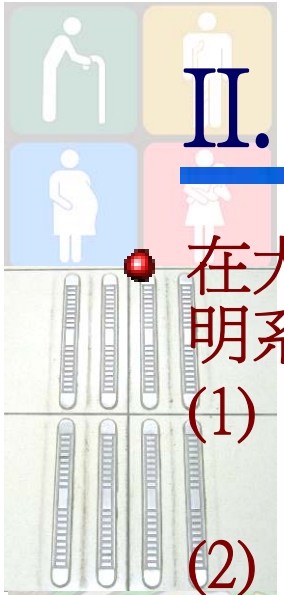
II. 新照明設計 New Lighting Design

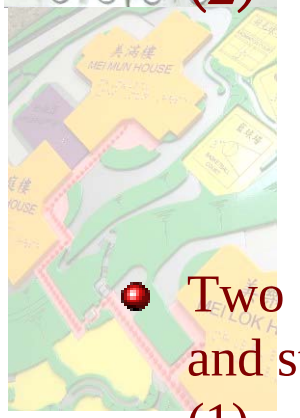
- 《設計手冊》強制規定住宅大廈在不同指定區域的最低照明光度。但這些規定的光度，一般較房委會在2008年12月之前所採用的標準爲高，因而增加能源消耗量。
- The Design Manual mandates the minimum illumination level at designated areas of a domestic building, which is generally higher than the standard adopted by the HA before December 2008 and would consume more energy.

II. 新照明設計 New Lighting Design

- 有關兩類標準的詳情見下表：
- Details of the two standards are as follows：

	房委會的標準 (2008年12月之前) HA Standard (before December 2008)	《設計手冊》的規定 Design Manual Requirement
地面入口大堂 Ground floor entrance lobby	**150** 勒克斯 (lux)	**120** 勒克斯 (lux)
樓上升降機大堂 Lift lobby of upper floors	**85** 勒克斯 (lux)	**85** 勒克斯 (lux)
走廊、暢通易達路徑 Corridor, accessible paths	**50** 勒克斯 (lux)	**85** 勒克斯 (lux)
樓梯 Staircases	**40** 勒克斯 (lux)	**85** 勒克斯 (lux)





II. 新照明設計 New Lighting Design

- 在大廈公用地方（即升降機大堂、走廊及樓梯）設有兩組照明系統 —

(1) 長明系統

經常亮着，以滿足大部分人士的需要。

(2) 備用系統

通常處於備用狀態，當進入指定區域的使用者啓動系統後，該區域的照明光度可在一段預設的時間內調高至85勒克斯。

- Two sets of lights are provided in the communal areas, i.e. lift lobby, corridor and staircase –

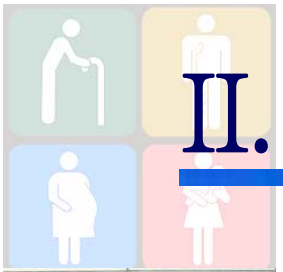
(1) Duty set

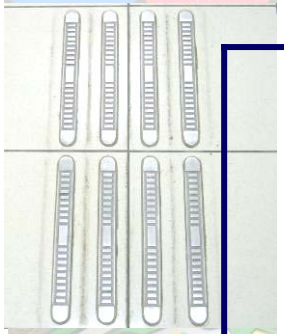
constantly powered to provide minimum illumination level to meet the need of most people.

(2) Standby set

triggered by users entering these areas. The illumination level will increase to 85 lux, zone by zone, for a pre-determined period of time.

II. 新照明設計 New Lighting Design

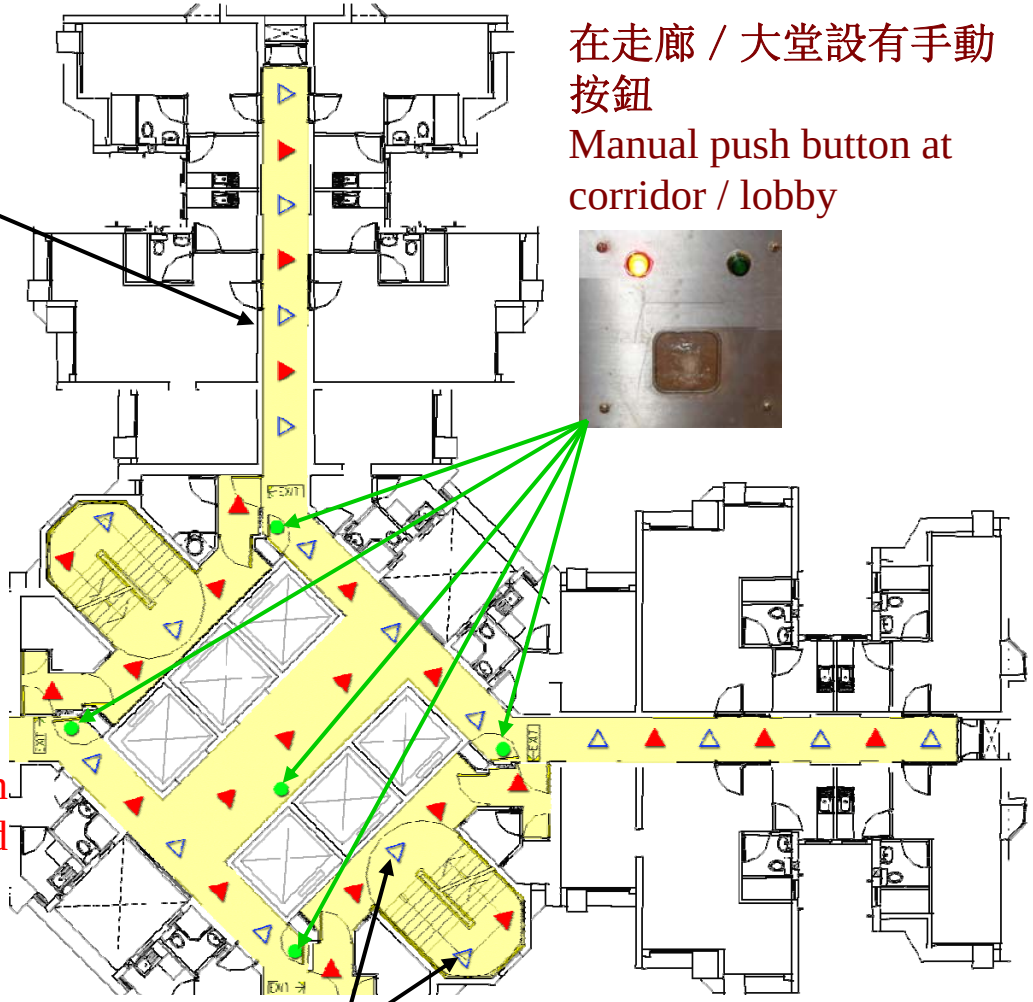




	長明系統的照明光度 Illumination of Duty Set	啟動備用系統後 的照明光度 Illumination Level after Triggering of Standby Set
樓上升降機大堂 Lift lobby of upper floors	**50** 勒克斯 (lux)	**85** 勒克斯 (lux)
走廊及樓梯 Corridors and staircases	**30** 勒克斯 (lux)	**85** 勒克斯 (lux)

標準住宅樓層的照明分布圖
Typical Domestic Floor Lighting Layout Plan

在每個住宅單位的大門電話對講系統設有照明系統按鈕
Designated button on the door phone handset inside each flat



在走廊 / 大堂設有手動按鈕
Manual push button at corridor / lobby

圖例 Legend

手動按鈕 Manual Push Button

長明系統 (Duty Set)
在走廊和樓梯提供30勒克斯和在升降機大堂提供50勒克斯基本光度的照明系統
Light fitting to provide basic illumination level of 30 lux for typical corridor and staircase and 50 lux for typical lift lobby

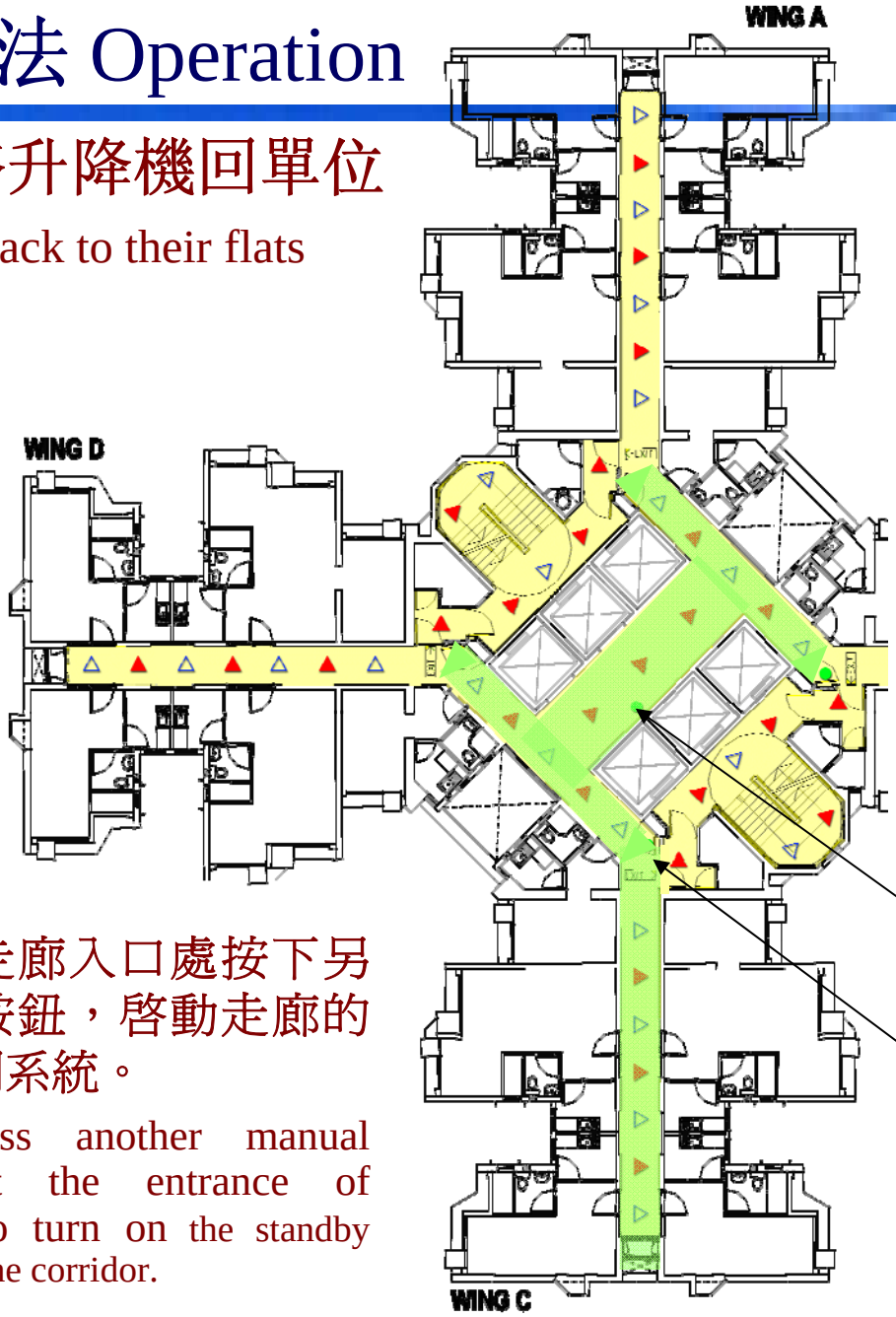
備用系統 (Standby Set)
把光度提升至85勒克斯的照明系統
Light fitting to elevate the illumination to 85 lux

在樓梯設有動作感應器
Motion sensor at staircase landing

操作方法 Operation

居民乘搭升降機回單位

Tenants go back to their flats



1. 居民步出升降機前往住宅單位時，可按下升降機大堂的手動按鈕以開啓升降機大堂區域的備用照明系統。

For tenants coming out from lifts on their way to domestic flats, they can press the manual switch in the lift lobby to turn on the standby lightings in the lift lobby area.

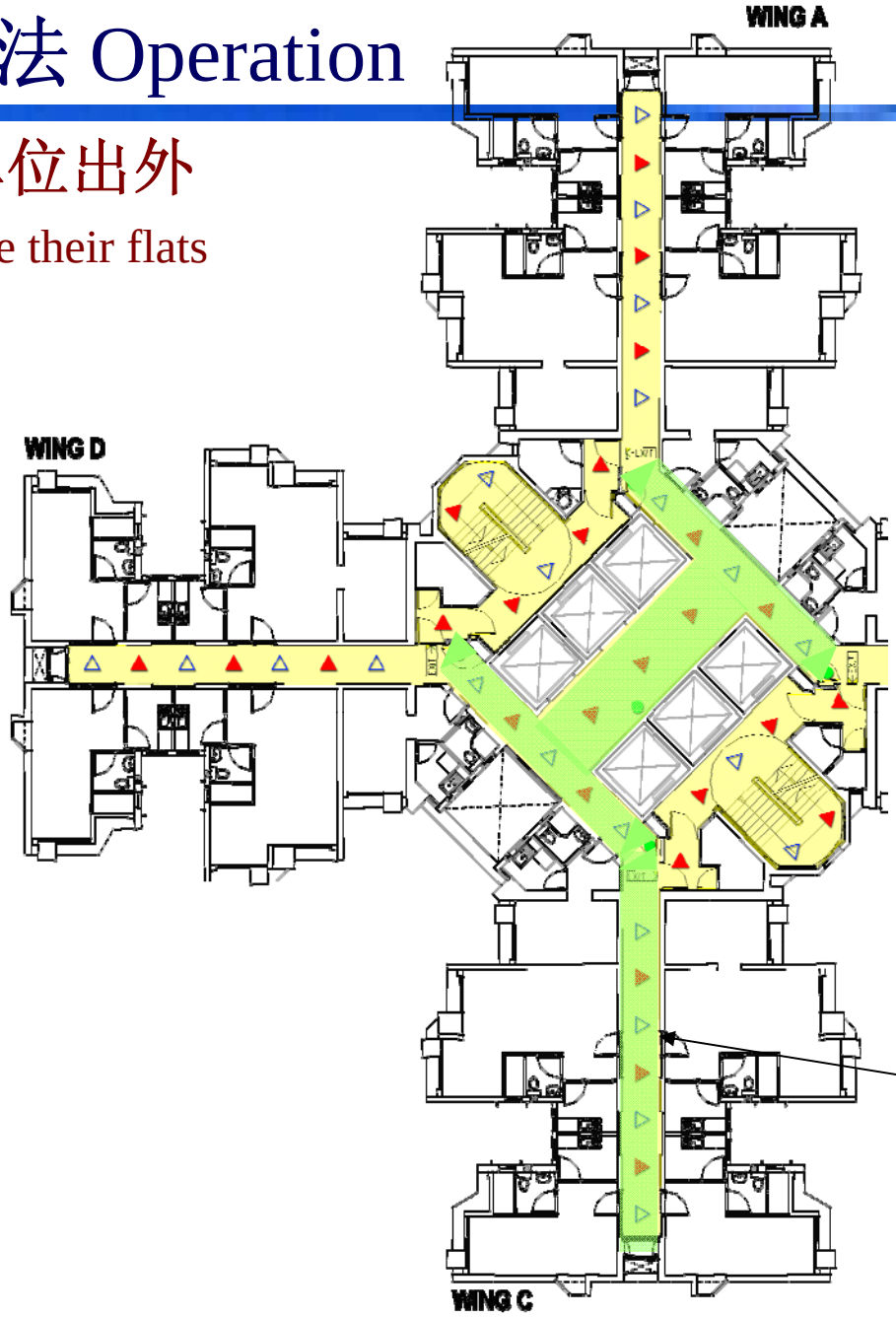
2. 然後在走廊入口處按下另一手動按鈕，啓動走廊的備用照明系統。

Then press another manual switch at the entrance of corridor to turn on the standby lighting in the corridor.

操作方法 Operation

居民從單位出外

Tenants leave their flats



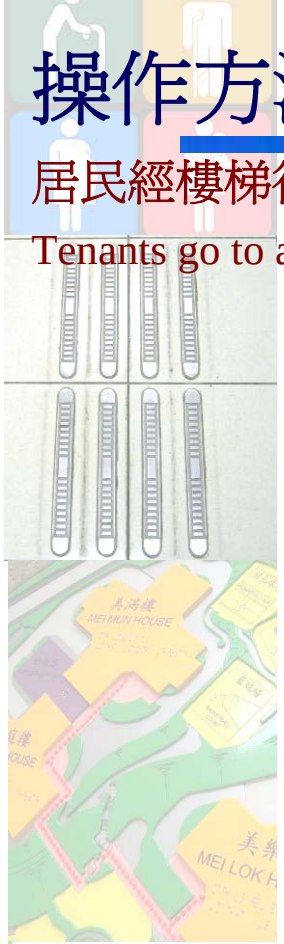
在每個住宅單位的大門電話對講系統設有照明系統按鈕離開住宅單位時，可在單位內按下大門電話對講系統的指定按鈕，開啓有關走廊和升降機大堂的備用照明系統

For tenants leaving domestic flats, they can turn on the standby lighting of the corresponding corridor and lift lobby by pressing a designated push button on the door phone handset inside the domestic flats.

操作方法 Operation

居民經樓梯往另一樓層

Tenants go to another floor vide staircase



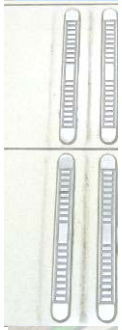
1. 居民步入樓梯時，在樓梯內的動作感應器探測到有人進入時，便會自動開啓相關的樓梯照明備用系統。

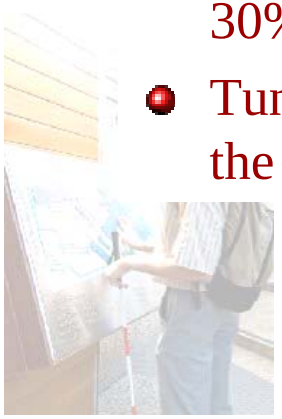
   For tenants entering staircases, motion sensors inside the staircases will turn on the standby lighting fittings upon when detecting any persons entering the staircases.

2. 居民步出樓梯時，可按下裝設在各樓梯入口處的手動按鈕，開啓備用系統以便在到達有關住宅單位前沿途獲得充足照明。

   Tenants coming out from staircases can press the manual switch installed at each staircase entrance to turn on the necessary lighting on their way to the designated domestic flats.

II. 新照明設計 New Lighting Design



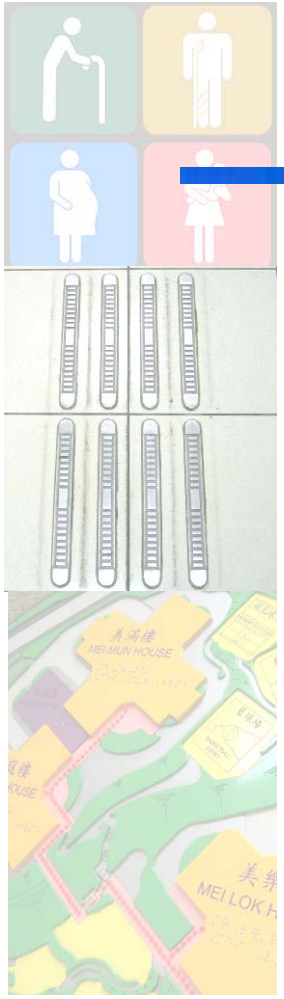


- 這項創新設計既實用，又符合成本效益，而且有利環保。
- 以一幢標準40層高，並有800個單位的十字型住宅大廈計算，估計每年可節省約121 000度電力，約相當於沒有該控制裝置的照明系統總耗電量的30%。
- 東頭邨第9期是首個採用這套新照明設計的發展項目，預計於2011年11月竣工。

- This innovative design is practicable, cost effective and environment-friendly.
- The estimated annual energy saving for a typical 40-storey cruciform domestic block with 800 flats is approximately 121 000 kWh, which is about 30% of the total consumption for the lighting system without such control.
- Tung Tau Estate Phase 9, which is due for completion in November 2011, is the first project with this new lighting design.

未來路向 Way Forward

- 作為一個以關懷為本的機構，房委會將繼續致力提升公共屋邨的通用設計設施，以締造傷健一家、和諧共融的生活環境。
- As a caring organisation, we will continue our efforts to enhance the universal design provisions in PRH estates to foster a community in which people with different physical abilities can live in harmony.



謝　謝

Thank You