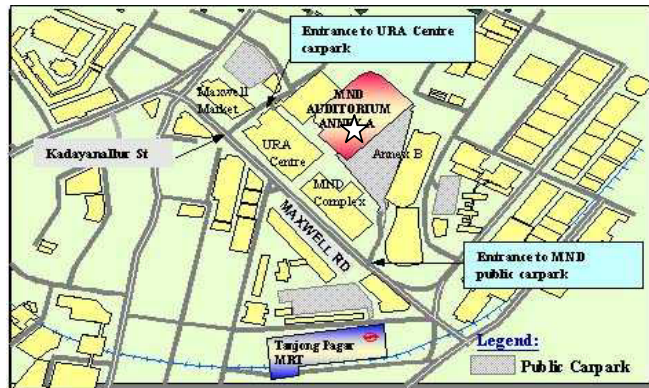


Registration Details

- Mail** : Building and Construction Authority
5 Maxwell Road #02-00
MND Tower Block
Singapore 069110
Attn: Ms Mary Siow
- Fax** : (65) 63257127
- Enquiries** : Please contact Miss Felicia Lee Pheck Hoon or Madam Linda Lian Seow Ngo for more information at
Tel : (65) 63258630 or (65) 63257106
Email : lee_pheck_hoon@bca.gov.sg or
lian_seow_ngo@bca.gov.sg
- Fee** : \$ 80 (inclusive of GST, 1 tea-break and seminar materials)
- Payment** : Crossed cheques should be made payable to: "Building and Construction Authority" and mailed together with the registration form to the above-mentioned address. No refund of fees will be made for cancellation. Replacement for the participant is allowed before the closing date.

Closing date: 13 Nov 2004



☆ Location Map
MND Auditorium
(MND Complex Annexe A)



Special Functions Division presents

Civil Defence Shelter Seminar



Accredited by:

Professional Engineers Board (PEB): 3 PDUs

Singapore Institute of Architects (BOA-SIA): 4 CPD Points

- Date** : 30 Nov 2004 (Tuesday)
Time : 08:30 am to 12:30 pm
Venue : MND Auditorium
MND Complex Annexe A
5 Maxwell Road

Who should attend this seminar?

Developers, Architects, Engineers and Public Agencies

PROGRAMME

Date : 30 Nov 2004 (Tuesday)
Venue : MND Auditorium
MND Complex Annexe A
5 Maxwell Road

08:30 am Registration of Participants

09:00 am Opening Address

09:15 am **An Update on the Implementation of Household Shelter Programme**
By Maj Ng Shu Herng (SCDF)

SCDF and BCA have regularly been reviewing shelter technical requirements as well as regulatory control by taking into account of the current changes in the building industry. The paper covers an overview on the main concerns and developments pertaining to the implementation of household shelter programme, e.g. protection capability and effectiveness of the HS, product listing scheme for HS doors, ventilation openings, permitted and not-permitted works and proper fixing of HS door handle etc.

09:45 am **Salient Update on Technical Requirements of Household Shelter**
By Victor Lian Choong Meng (BCA)

SCDF and BCA are regularly reviewing shelter technical requirements to keep pace with the building trends in the construction industry as well as to aid flexibility and space efficiency in building design. There have been several amendments made to the shelter technical requirements since Nov 2001. These changes, including the use of trellis to make up for shortfall of setback distances and other such permissible variations, will be covered in this paper. Performance validation test of shelter components will also be highlighted in the paper.

10:15 am Tea Break

10:45 am **Incorporating Household & Staircase Storey Shelter in a Condominium Development**
By Mdm Wong Meng Heng (Team Design Architects Pte Ltd)

Besides household shelter that is provided inside the dwelling unit, the new staircase shelter concept offers yet another option for developers and designers to choose. Since the release of the staircase shelter design requirements by SCDF in Jul 2004, response from the building industry has been most encouraging. This is evident from the numerous shelter design consultations that BCA has received. Team Design Architects Pte Ltd is one of the first few who has made use of household and staircase shelter concept for a high rise condominium project. This paper highlights the impact of the design solution and challenges posed in adopting both household and staircase shelter concept.

11:15 am **Design of Environmental Control System (ECS) in MRT CD Shelters**
By Lee Chee Keong (BCA)

To convert an underground MRT station into a CD shelter when the need arose, several considerations have to be taken into account when designing ECS in a MRT station. This poses unique challenges to the designer. This paper highlights the salient and interesting parameters used in the ECS design. It also covers the various modes of operation, specialised equipment and special features of the ECS in a CD shelter.

11:45 am **Good Design Practice Leading to Lesser Maintenance of Public Shelters**
By Mrs Lee-Tan Li Kim (BCA)

It is observed from the audit inspections of existing public shelters that some of the defects detected may not be entirely due to wear and tear. The importance of considering maintenance aspect cannot be over-emphasised. This paper highlights examples of good design practice of public shelters resulting to lesser maintenance problem.

12:15 pm **Q&A Session**

12:30 pm **End of Seminar**

REGISTRATION FORM

Civil Defence Shelter Seminar, 30 Nov 2004 (Tuesday)

COURSE FEE PER PARTICIPANT: \$80

Name of Participant(s):

1. Dr/Mr/Mrs/Ms : _____

Designation : _____

2. Dr/Mr/Mrs/Ms : _____

Designation : _____

3. Dr/Mr/Mrs/Ms : _____

Designation : _____

Name of Organisation:

Address:

Contact Person : _____

Tel No. : _____ (O) _____ (HP/Pg) _____

Fax No. : _____ Email : _____

Please find:

Cheque No: _____ Amount (S\$): _____

Payable to "Building and Construction Authority"

Authorised Signature

Company Stamp : _____

Closing Date: Please send in your registration form together with your payment by **13 Nov 2004**. Registration will be on a first-come-first-serve basis. The title of the seminar and name of the participant(s) should be indicated on the back of the cheque.

Mailing Address: **Building and Construction Authority**
5 Maxwell Road #02-00 MND Tower Block
Singapore 069110
Attn: Ms Mary Siow