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Our Ref: OM-LA/018

16 July 2010

MEMORANDUM

To : Engineering Staff

From : Andrew Loh

(A) INFINITY EDGE POOL MUST BE SAFE FOR USE
(B) SITE CONDITIONS FOR TOP INSPECTION
(C) CHANGES TO APPLICATION FOR APPROVAL BUILDING PLANS FORM

Please find attached the circular from BCA dated 12 July 2010 pertaining to the above-captioned for your information and attention.

ANDREW LOH

cc LFY/TLS/CCG/GSH
cc Memo File

enc

/hi

BCA ISO 14000 CERT. NO.:2003/134 SS ISO 14001 : 2004
BCA ISO 9000 CERT. NO.: 324 SS ISO 9001 : 2000
ACCREDITED CERTIFICATION BODY SAC Cert. NO. QS 1597.02 Member of the IAF MLA for QMS

Building and Construction Authority

We shape a **safe**, **high quality**, **sustainable** and **friendly** built environment.

Our Ref.: BCA BC 15.0.3 Building Plan and Management Division

12 Jul 2010

See Distribution

Dear Sir/Madam

A) INFINITY EDGE POOL MUST BE SAFE FOR USE
B) SITE CONDITIONS FOR TOP INSPECTION
C) CHANGES TO APPLICATION FOR APPROVAL BUILDING PLANS FORM

Objective

This circular is to advise the industry on following:

a) Infinity edge pools should be designed such that they are safe for use;

b) Site conditions for TOP Inspection; and

c) Changes to Application for Approval Building Plans Form (Form BCA-BP-BPAPPV01).

Infinity Edge Pool

2 An infinity edge pool (also named negative edge, zero edge, disappearing edge or vanishing edge pool) is a swimming or reflecting pool which produces a visual effect of water extending to the horizon, vanishing, or extending to "infinity".

3 In the recent building plan submissions and TOP inspections, we have observed a trend of providing infinity edge pools for the purpose of swimming in condominiums and hotels/resorts. Some are even located at height such as the rooftop of the developments.

4 In a swimming pool, the use of inflatable float on which the user could lie is foreseeable. The use of such float in an infinity edge swimming pool can be dangerous especially if the pool is located at height and there is no safety barrier to stop the float from flowing over the pool edge with the water. Industry is thus advised to incorporate reasonable precautionary measure in

the design to prevent the float from flowing over the pool edge, such as raising the pool edge such that it is higher than the water level and providing a barrier beyond the pool (see illustration at **Annex A**).

5 In addition, some infinity edge swimming pools are observed to have wide pool edge which allows people to walk on. This encourages children to run along the pool perimeter and can be dangerous should there be a drop in height beyond the edge. In such circumstances, industry is reminded that **Clause H of the Fifth Schedule of the Building Control Regulations ("Safety from Falling") will apply to any part of the perimeter of the pool if there is a drop in height of 1m or more beyond it** (see illustration at **Annex B**).

Site Conditions for TOP Inspection

6 We have observed that there is an increasing number of developments which are not ready for TOP inspection on the day of the appointment. Due to the incomplete works, re-inspections have to be scheduled. As a result, the other sites which are ready are deprived of the TOP inspections at earlier dates.

7 On this note we would like to draw the attention of the industry, in particular the qualified persons (QPs) requesting for TOP inspections and the QPs supervising the erection of the building works, to the following documents submitted during the request for TOP inspection.

a) "Declaration by Qualified Person for the Application of Temporary Occupation Permit/Certificate of Statutory Completion for Building Works" -- The QP declares he has inspected the completed building works and that that these works comply with the Building Control Act and Regulations.

b) "Certificate of Supervision of Building Works" -- The QP for the supervision of the erection of the building works certifies that the building works have been completed in accordance with the Building Control Act and Regulations.

8 The declarations of completion of building works and compliance with the regulatory requirements when the works on-site are actually incomplete may amount to **an offence of false declaration under s20(4) Building Control (BC) Act**. Thus we would like to remind the QPs to declare completion of works only when it is really so on-site.

9 In addition, we would also like to highlight to the QPs for the supervision of the building works that it is the duty of the QP, under s9(4) BC Act, to take all reasonable steps and exercise due diligence in supervising and inspecting the building works to ensure that the works are carried out in accordance with the Act, Regulations and the approved plans.

10 With effect from **1 August 2010**, if major safety provisions have not been completed, our officer would not be able to proceed with the TOP inspection and the QP will have to schedule another date for TOP inspection when these provisions have been completed. Examples of the major safety provisions deemed as incomplete could be **any of the following conditions:**

a) No safe and proper access to or within the development;

b) Incomplete building works, in relation to:

i) safety from falling from height; and

ii) treads and risers as well as safety barrier of staircases.

c) Incomplete basic finishing work which affects the measurements of width of corridors and staircases, height of safety barriers, ceiling height and headroom.

Amendments to Application Form for Approval of Building Plan (Form BCA-BP-BPAPPV01)

11 We have made the following changes to the application form for approval of building plan (Form BCA-BP-BPAPPV01).

a) New Developments located on Land sold under Government Land Sales Programme to attain Higher Green Mark Certification

In our circular dated 6 May 2010, the industry was informed that new developments located within the areas identified in the Schedule of the Building Control (Environmental Sustainability) Regulations which are sold under the Government Land Sales Programme must attain higher Green Mark Certification (GoldPlus or Platinum).

Section III.9 of Form BCA-BP-BPAPPV01 has been amended for this purpose. QPs who are submitting for projects which are subject to the requirement of higher Green Mark Certification should fill in this Section accordingly.

b) Computation of SGFA of New Building/Building Works

We have added a new table for the computation of SGFA (statistical gross floor area) of new buildings/building works under Section III.13 of Form BCA-BP-BPAPPV01. This is to standardise the format of submission on SGFA computation of QPs and to streamline the verification process by our officers. We hope, as a result, the unnecessary delay in processing the building plan submissions due to error/confusion in computation of SGFA could be minimised.

12 QPs making building plan submissions are advised to use the new form **with effect from 1 August 2010**.

For Clarification

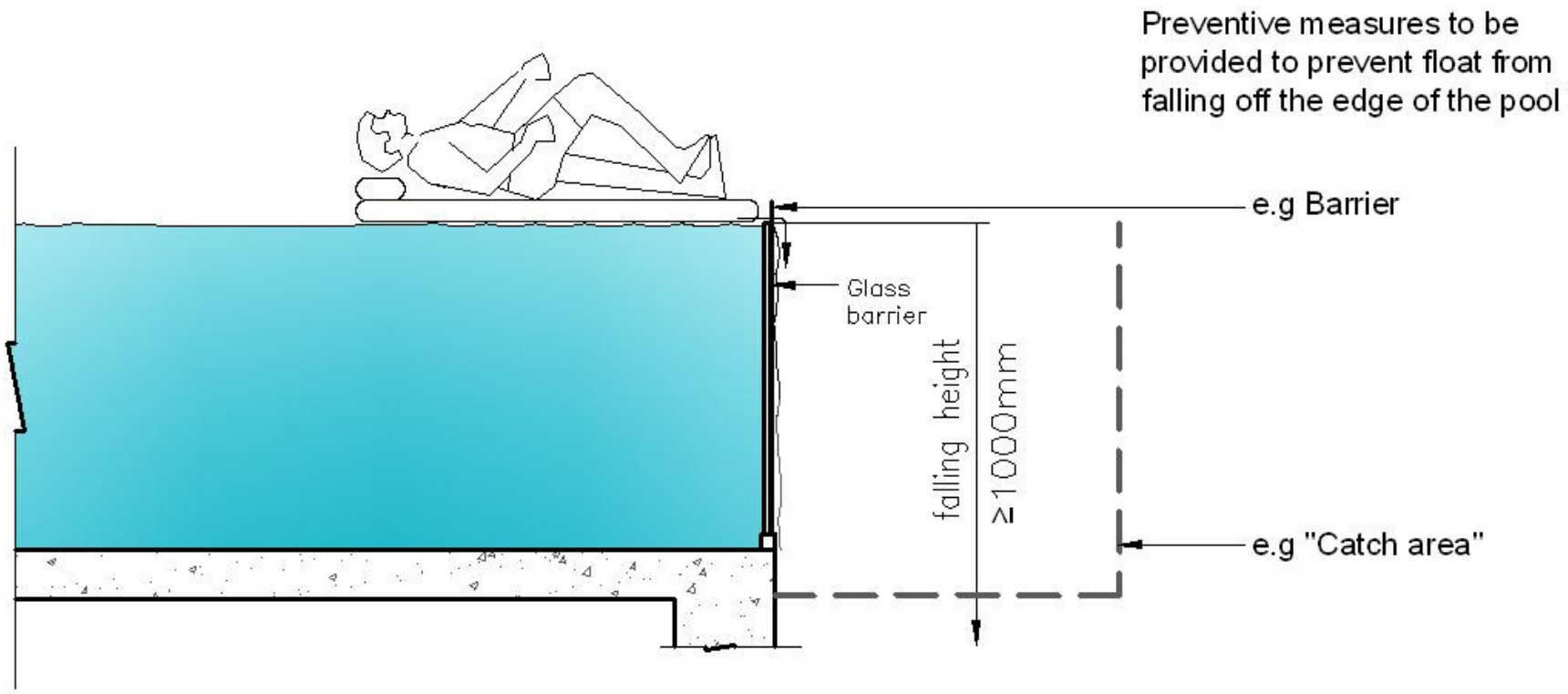
13 We would appreciate it if you could convey the contents of this circular to the members of your organisation. For clarification, you may call our BP Hotline at 6325 7159, TOP Hotline at 6325 7160 or email to bca_enquiry@bca.gov.sg.

Yours faithfully



TEO ORH HAI
DEPUTY DIRECTOR
BUILDING PLAN & MANAGEMENT DIVISION
for COMMISSIONER OF BUILDING CONTROL

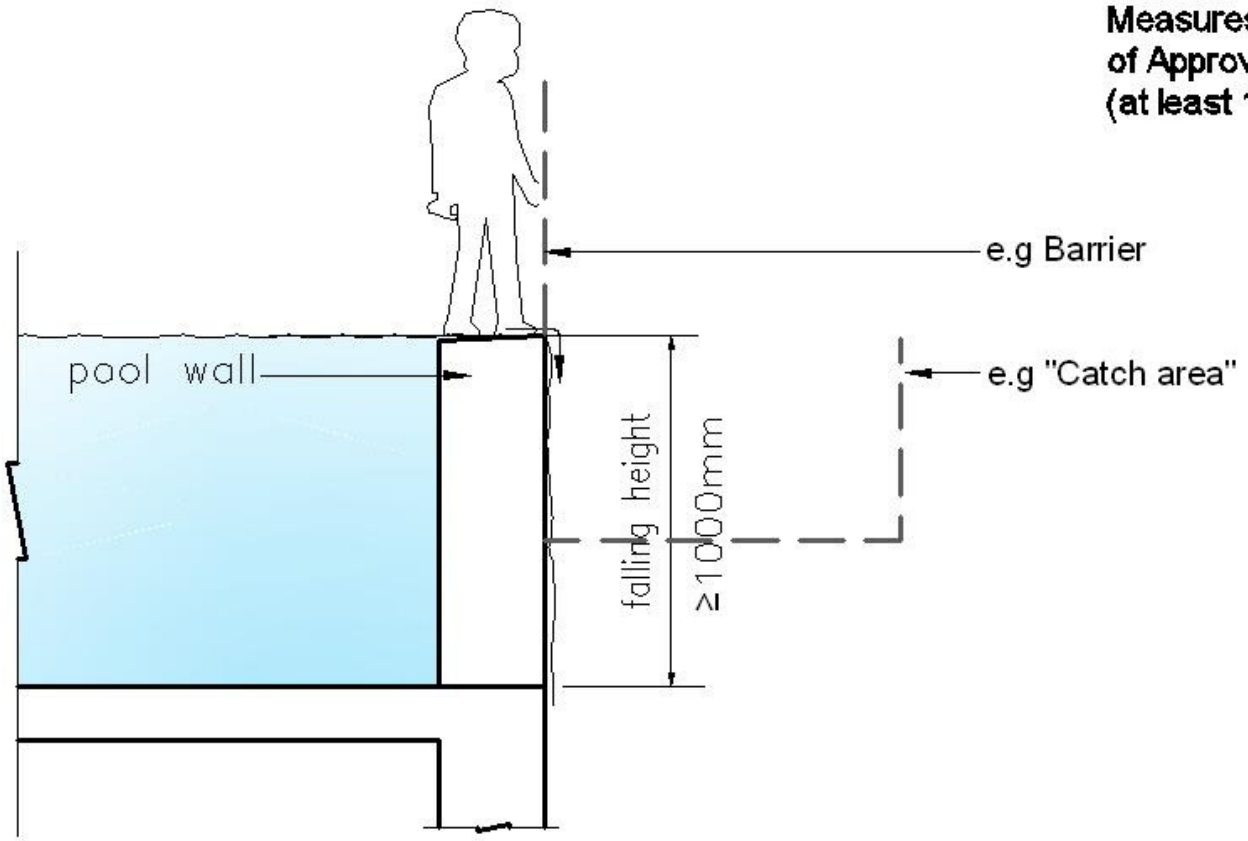
ANNEX A



SECTION OF SWIMMING POOL LOCATED AT HEIGHT

ANNEX B

Measures complying with Clause H of Approved Document required (at least 1m high)



SECTION OF SWIMMING POOL WITH WIDE POOL EDGE WHICH ALLOWS PEOPLE TO WALK ON