

Clerk to the Panel on Planning, Lands & Works,  
Legislative Council,  
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The Legislative Council Building,  
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HONG KONG

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*By Fax & Mail*

Dear Sirs,

REVIEW ON THE DRAINAGE SYSTEMS OF  
RESIDENTIAL BUILDINGS IN HONG KONG

I am a retired drainage/plumbing design engineer, as a citizen, I am very concerned with the impact from the transmission of *SARS* through the contaminated sewage system. I believed that it is a good time to review the existing practise and finding ways to resolve and prevent this kind or similar events to be happened again in the near future.

After a perusal through the reports from ACEHK & HKIE on the issue of "*the Drainage Systems of Residential Buildings in Hong Kong*" presented for the meeting of Legco Panel on Planning, Lands & Works on 16 May 2003, I have the following opinions:

*1. Review on the entire drainage installations approval process*

The design should be done and approved by relative licensed professionals ( like BSE/RPE ). And the installations should be carried out and completed by licensed drainage contractors, even more, accompanied by *completion undertaking*.

*2. Enforcing the provision of the floor drain priming requirements*

It is highly recommended that the floor drain anti-syphonage U-trap should be automatically and continuously primed. This could be achieved by connecting the wash basin/kitchen sink discharge pipe in between the floor drain grating and its anti-syphonage U-trap *as illustrated in Figure 1 of HKIE report*. The other advantage of which is gaining easy access for the residents to sterilize the floor drains through the wash basin/kitchen sink respectively.

*3. Application of two-pipe system instead of one-pipe system*

By using the two-pipe system, it could be completely separated the soil and waste discharge and therefore avoiding any risk of cross-contamination. My views on *two-pipe system Vs one-pipe system* are:

a. Flushing effect by one-pipe system

The cross-contamination happened in *Amoy Gardens* may be a proof to challenge the effectiveness and efficiency of the flushing effect by one-pipe system.

b. Significant additional cost for two-pipe system

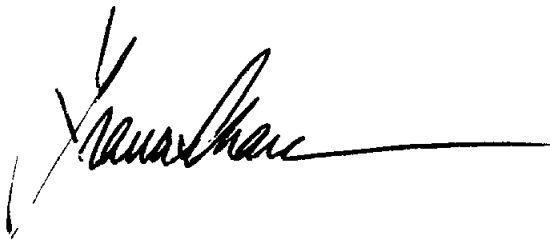
The cost for the additional waste stack ( normally 100mm diameter plastic pipe ) is not significant when compared with the entire development cost. This can also be improved by a thoughtful layout design thus minimized the quantity of stack involved.

c. Difficult accommodation of additional waste stack in light well space

Since the size of the additional stack is not huge ( about 100mm diameter plastic pipe ). By means of a desirable layout design and the well co-ordination of relative services in light well space, it will not be difficult to overcome these constraints with the efforts imposed by the architects and engineers. Meanwhile, the government may consider by granting certain *waivers* to assist the professionals to ease these constraints in their design.

*In view of the above*, I believed that by building Hong Kong to a healthy and hygienic city in the long term, the relative costs and efforts incurred to improve our living standard is worthwhile.

With best regards

A handwritten signature in black ink, appearing to read 'Francis Chan', with a long horizontal line extending to the right.

*CHAN Chak Tin, Francis*  
*MBA, MASPE, MASHRAE, License Plumber*

cc. Chairman of Panel on Planning, Lands and Works, Legislative Council

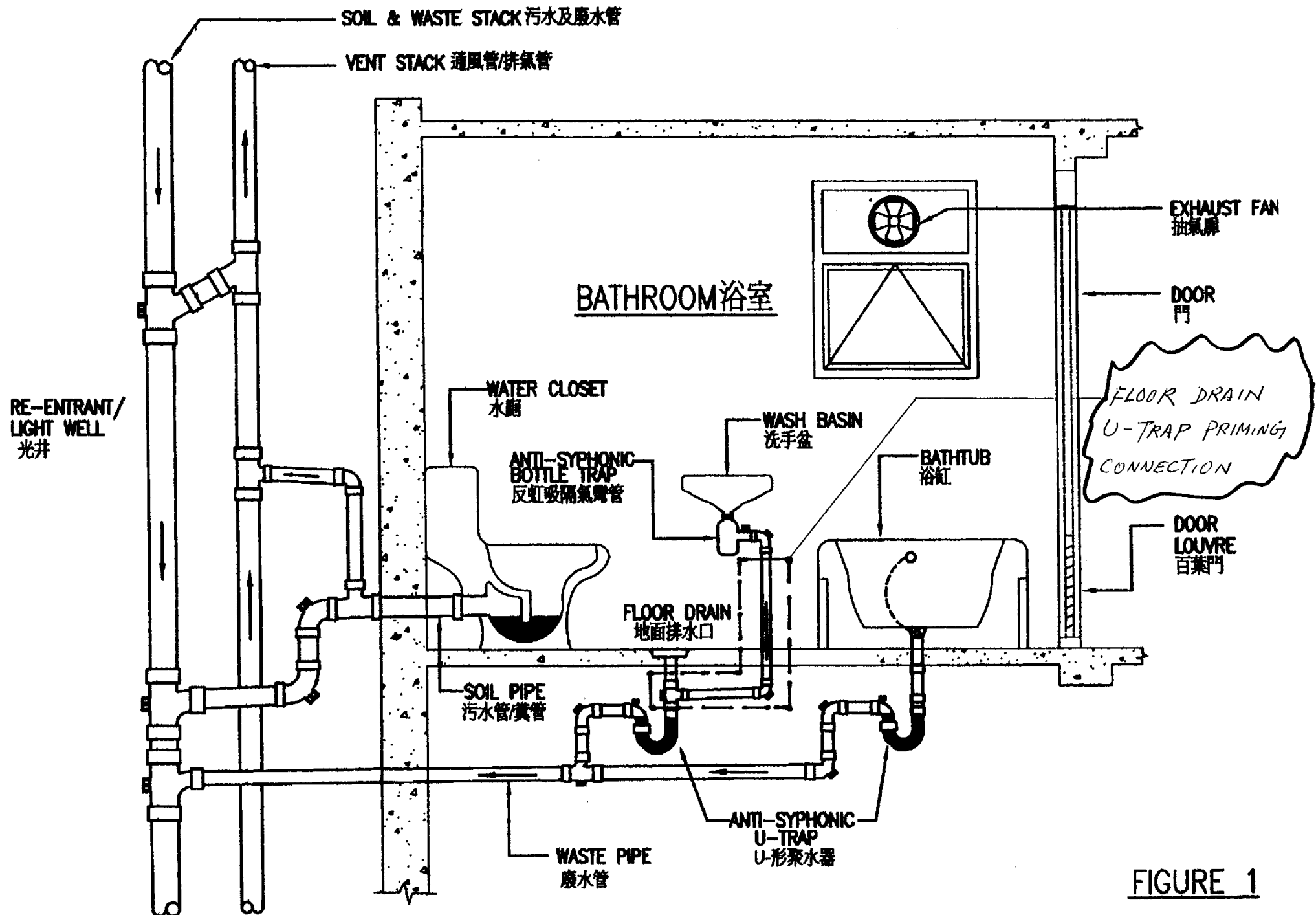


FIGURE 1