

**Construction Industry Council**

**Committee on Environment and Technology**

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Meeting No. 005/12 of the Committee on Environment and Technology for 2012 was held on 22 November 2012 (Thursday) at 2:30 pm at ZCB, Sheung Yuet Road, Kowloon Bay, Hong Kong.

Present:	Wai-wai YU	(WWY)	Chairman
	Andrew CHAN	(AC)	
	Jan-ming KO	(JMK)	
	Wo-hei LAM	(WHL)	
	Christopher LEUNG	(CL)	
	Kevin POOLE	(KP)	
	Choi-kai AU	(CKA)	Director of Buildings
	Connie YEUNG	(CYG)	Housing Authority
In Attendance:	Derrick PANG	(DP)	Chair of WG-IPM
	Wai-wah HO	(WWH)	Chair of TF-RSS
	Russell JONES	(RJ)	Hong Kong Construction Association
	Kenneth POON	(KP)	Hong Kong Institute of Surveyors
	Sam-choi CHAN	(SCC)	Construction Site Workers General Union
	Ping-wai CHOW	(PCH)	Hong Kong Construction Industry Employees General Union
	Pun-hing HO	(PHH)	The Hong Kong Federation of Electrical and Mechanical Contractors
	Jimmy CHAN	(JC)	Development Bureau
	Dan FUNG	(DF)	Environmental Protection Department
	Hon-kwok WONG	(HKW)	Architectural Services Department
	Joseph MAK	(JM)	Housing Authority
	Guiyi LI	(GYL)	Director - ZCB
	Ivan WONG	(IW)	Senior Manager - Council Services 2
	Julian LEE	(JL)	Manager - Research
	Ivan KO	(IK)	Manager - Council Services 2
	Apologies:	James KWAN	(YCK)
Siu-hung CHAN		(SHC)	
Hau-wai CHEUNG		(HWC)	
James PONG		(JP)	Hong Kong Institute of Surveyors
Thomas NG		(TN)	The University of Hong Kong

## **PROGRESS REPORT**

### **Action**

#### **5.1 Confirmation of the Progress Report of the Previous Meeting**

Members took note of Paper CIC/ENT/R/004/12 and confirmed the progress report of the last meeting held on Thursday, 6 September 2012 at CIC Headquarters, 15/F, Allied Kajima Building, 138 Gloucester Road, Wan Chai, Hong Kong.

#### **5.2 Matters Arising from the Previous Meeting**

##### **5.2.1 Schematic Design for Application of RFID, GPS and Sensor Technology in Monitoring the Movement of Construction Waste**

Mr Simon Wong, CEO of LSCM accepted to be the Chair of Task Force. Members endorsed Mr Simon Wong as a Co-opted Member of the Com-ENT.

##### **5.2.2 Construction Product Certification**

The matter was covered by the agenda item 5.3.

##### **5.2.3 Strength of the Hong Kong Construction Industry**

Consolidated views from CIC had been submitted to DevB and hence separate meeting to discuss the matter was not necessary.

##### **5.2.4 Research on Adhesion Technologies for External Wall Tiles**

The Chinese version of the Study Report and Reference were submitted to the Task Force for final review after several rounds of comments on consultant's submissions.

Per Council's previous decision, both the Chinese and English versions of the Study Report would be uploaded to CIC's website for public access subject to any comments on the Chinese version of the Study Report made by Task Force. It was expected that the Study Report would be published to CIC's website by mid-December 2012.

**5.3 Presentation on Construction Product Certification in Housing Authority**

Mr. Joseph MAK of Hong Kong Housing Authority (HKHA) delivered a presentation on “Implementation of Construction Products Certification in Hong Kong Housing Authority”.

Mr. Mak presented the following:

1. the initiative of the implementation of product certification in HKHA is to seek for extra assurance of product quality by using upstream quality control which offers a better guarantee for quality, safety and reliability of products by putting more emphasis on the technical capability of supply factories;
2. HKHA currently requires the suppliers of seven major construction materials to obtain certification in stages, they are:
  - Fire-rated timber doors
  - Panel wall partition
  - Cement products (for architectural use)
  - Tile adhesives
  - Ceramic tiles
  - Repair mortars
  - Aluminium windows and 4-bar hinges assembly

Other products in the pipeline for requiring product certification in the near future are :-

- uPVC drainage pipes & fittings
  - Close-coupled water closet suites
  - Mesh reinforcement
  - Couplers for reinforcement;
3. product certification process, regime and prerequisites for implementation were explained;
  4. benefits of the product certification to client, contractor, manufacturer and end user;
  5. wider implementation of construction product certification needs continuous and wider collaboration with stakeholders from private sector to public sector of the construction industry.

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HKHA's product certification scheme was still at the starting stage. Future stages of certification development may include the extension of the product categories and supply regions/ countries. It was observed that the product quality supplied from western countries and Japan were more consistent than that from Pearl River Delta region; whereas, quite a number of construction products for Housing Authority came from Pearl River Delta region. As such, the starting stage of the scheme focused on those suppliers locating within 800 km of Hong Kong.

The product schemes being used by HKHA were prepared by relevant Hong Kong professional institutes and were compiled based on international standards. They are open standards such that stakeholders in Hong Kong could make use of these product schemes as their product certification requirement. However, these product schemes may not be adopted by other countries because most of them have their own local schemes and certification requirements.

HKHA estimated that the product certification would not significantly (compared with bill value of a product) affect the product cost as a whole because the cost for certifying one product would be around HK\$100,000 and the process lead time required would be around 6 – 9 months.

Members consented that CIC would be the appropriate body to co-ordinate the preparation of the product schemes in order to encourage the wider adoption of product certification. The Secretariat would study how to put forward the matter.

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*[Mr. MAK left at this juncture.]*

**5.4 Report of The Hong Kong Construction Association – Hong Kong's Construction Industry Vision 2020**

Members took note of Paper CIC/ENT/P/030/12.

Strategic Planning and Steering Committee requested the relevant committees to review the respective items in the Vision 2020 to identify if CIC could take forward any suggestions in the report.

HKCA has been invited to assign a representative to attend the meeting to present the environmental issues raised in the Vision 2020 report and to respond to questions raised at the meeting, but

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the representative was not yet confirmed before the meeting. Mr Russell JONES, the Co-opted Member nominated by HKCA, said that Mr. Ringo Yu had been nominated as spokesperson on this topic by HKCA and he will be pleased to address the Committee accordingly.

In absence of the spokesman of HKCA for the environment and energy efficiency issues in the Vision 2020, Chairman advised to defer this agenda item to the next meeting.

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**5.5 Working Group on Strategic Implementation of Prefabrication and Modular Construction**

Members took note of Papers CIC/ENT/P/031/12.

DP stressed that the report was written on the basis of fact finding as per industry practitioners' current practice and experience sharing only.

He recommended to pursue the wider application of prefabrication, phase 2 study would be required:

1. to define clear objectives of pursuing implementation of prefabrication and modular construction in Hong Kong, for example, to tackle manpower shortage issue, to enhance site safety, to improve construction productivity and efficiency, or to improve construction cost effectiveness?
2. to carry out benefit analysis and costing analysis to substantiate the opinions collected through experience sharing set out in the phase 1 study report.

While the report addressed that client's initiatives and incentives were the key drivers for the adoption of prefabrication, a Member raised concern about the "Possible Actions" relating to the incentives on GFA concessions to be provided by the Government in view of the adverse effect on the environment brought about by GFA concessions and that the prevailing stand of the Government was to reduce GFA concessions as far as possible. It was clarified that the incentives proposed in the report did not pinpoint on GFA concessions but any form of actions taken to encourage use of prefabrication.

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DP explained that the “Possible Actions” set out in Chapter 10 were the opinions of the Task Force through experience sharing during the task force meetings, which were included in the report for the consideration of the relevant stakeholders only. To avoid confusion that the “Possible Actions” were recommended actions for the respective stakeholders to follow up, wordings in Chapters 9, 10 and 11 should be fine-tune to reflect the actual intent of the Task Force afore-mentioned.

**TF-Prefab**

A Member suggested revising the second bullet point under point (g) of Chapter 7 from “... long lead time in obtaining approval of the revised building plans from BD...” to “... long lead time in *the redesign works for obtaining approvals of the revised plans.*” as the long lead time was not primarily due to the time for various approvals (including but not limited to statutory approval) but the time for such redesign.

**TF-Prefab**

After much deliberation, Members also suggested:

1. extending the scope of study to cover prefabrication of Mechanical, Electrical and Plumbing (MEP) works in future studies; and
2. exploring the opportunity of technology driven construction mode to replace current labour intensive construction mode, such as wider use of machinery with complementary new construction process aiming to reduce the reliance on frontline workforce, in future studies.

The Secretariat was directed to make a proposal for the follow up actions at the next meeting.

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## 5.6 Research Proposals by Research Institutes

Members took note of Paper CIC/ENT/P/032/12.

The Secretariat briefed the Members on the prioritisation of the 52 proposals received. The initial assessment was carried out by the research team of the Secretariat based on three major criteria as stipulated in the Research Policy which are: (i) value of project, (ii) cost-effectiveness, (iii) project implementation.

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As there was large amount of information associated with the 52 applications, in order to have the results of applications available by January 2013, Members agreed to set up an ad hoc review group to further assess and finalise the recommendation of the Secretariat on those submitted proposals. Chairman invited Mr. Russell Jones, Dr. Andrew Chan, Prof. Christopher Leung, Prof. Ko Jan-ming, Mr. Derrick Pang as panel members of this review group. The Secretariat will convene this review group.

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Members advised that this review group should also consider the followings during their assessment:

- the reasonability of the fund request;
- whether the proposals fit in the scope of the research policy and funding purpose;
- endeavour to use different angles/ perspectives to evaluate the value of the proposals;
- use more objective scoring system to come up transparent recommendation.

The recommendation made by this review group will be submitted to Com-ENT for endorsement in the next meeting.

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Chairman advised that an agenda item is needed to formulate a mechanism and policy to select, recommend and approve future phases' proposals in the next meeting.

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*[Declaration of Interest: Prof. Christopher Leung declared that a proposal "Development of High Modulus Concrete for Tall Buildings" was jointly submitted by himself and Prof Z.J. Li, and he had to avoid the discussion relating to that application. Prof. Ko Jan-ming declared that the university he previously worked for also submitted applications. Members agreed Prof. Leung and Prof. Ko to stay in the review group as panel members.]*

## 5.7 Revised Categorisation of the CIC Publications

Members took note of Paper CIC/ENT/P/033/12.

Over the years, documents published by the CIC relating to good practices were classified under four categories, namely Alerts, Guidelines, Codes of Practice and Codes of Conduct.

Since then, comments on the categorisation of different publications

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being unclear were received which might create confusion. As such, the Council recently approved the new categorisation of the CIC publication as shown in Annex B of the paper.

Each committee was requested to review the categorisation of the corresponding published documents if the titles need to be changed in accordance with the latest categorisation.

For Com-ENT, there was only one publication “Guidelines on Trip Ticket System for Disposal of Construction & Demolition Materials in Private Sector Works”.

Members recommended that there was no need to change the name of the Guidelines. The recommendation of the Com-ENT would then be submitted together with other committees’ recommendations to the Council for consideration.

A Member suggested keeping the wording “strongly” before the phrase “.... recommends the adoption of these Reference Material ...” in the definition of “Reference Materials” under the new categorisation in view of the wording “strongly” existed in the previous category of “Guidelines”.

After much deliberation, Members considered it is not necessary to put the word “strongly” in the aforesaid new category because the present definition for the category was clear enough to reflect the views of different stakeholders on differentiating the nature of different publications.

**5.8 Establishing a Hong Kong Based Carbon Labelling Framework for Construction Materials**

Members took note of Paper CIC/ENT/P/034/12.

Members took note of the final report. The report would then be uploaded to CIC’s website for public access upon Council’s approval.

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Since a Hong Kong based Carbon Labelling Framework is a useful tool and while the Housing Authority has also devised a similar



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design tool, namely “Carbon Emission Estimation for projects”, CYG advised that Housing Authority would be happy to share their “Carbon Emission Estimation” with Com-ENT members. CIC Secretariat would work with Housing Authority on the presentation date.

Chairman thanked the Task Force members for their great effort on the project.

**5.9 Any Other Business**

- a. TVB afternoon program - “Pleasure and Leisure” (“都市閒情”) invited our Task Force member on External Wall Tiles Adhesion, Mr. K.K. Kwan, to talk about the maintenance needs of the external wall tiles of their premises. The programme was broadcasted on 8<sup>th</sup> November 2012.
- b. CIC is going to organise a technology forum scheduled for 18 January 2013 (14.00 – 17.00 hrs) at ZCB with theme on “Construction for Sustainability” including the elaboration of the research funding policy and arrangement.
- c. CIC sponsored a BIM conference organised by The Hong Kong Institute of BIM scheduled for 14<sup>th</sup> December 2012.

**5.10 Tentative Date of Next Meeting for 2013**

17 January 2013 at 2:30 pm at CIC Headquarters, 15/F, Allied Kajima Building, 138 Gloucester Road, Wanchai, Hong Kong.

**All to note**

There being no further business, the meeting was adjourned at 5:30 pm.