

Construction Industry Council

Committee on Environment, Innovation and Technology

Meeting No. 003/15 of the Committee on Environment, Innovation and Technology for 2015 was held on 24 July 2015 (Thursday) at 2:30 pm at CIC Headquarters, 15/F, Allied Kajima Building, 138 Gloucester Road, Wanchai, Hong Kong.

Present:	Kevin POOLE	(KP)	Chairman	
	Andrew CHAN	(AKYC)		
	Paul CHONG	(PC)		
	Stephen LAI	(SLI)		
	Robert LAM	(RL)		
	Christopher LEUNG	(KYL)		
	Ringo YU	(RY)	Hong Kong Construction Association	
	Siu-wai HUI	(SWH)	Director of Buildings	
In Attendance:	Vincent MAK	(VM)	Development Bureau	
	Thomas NG	(TN)	The University of Hong Kong	
	Sam-choi CHAN	(SC)	Construction Site Workers Union	
	Ping-wai CHOW	(PWC)	Hong Kong Construction Industry Employees General Union	
	Ivan LEUNG	(ILg)	LSCM	
	Clarence FUNG	(CF)	HKHA	
	Ka-chun MAK	(KCM)	ArchSD	
	Henry LAI	(HLA)	EMSD	
	Albert KWAN	(AK)	The University of Hong Kong	
	Victor WONG	(VWg)	Senior Manager – Council Services	
	Ivan KO	(IK)	Senior Manager – Construction Trade Testing	
	Sally LEUNG	(SYLg)	Manager – Council Services	
	Alfred LEUNG	(ALg)	Assistant Manager – Council Services	
	James WONG	(JW)	Senior Officer – Research	
	Apologies:	Reuben CHU	(RC)	
		Ada FUNG	(AF)	for Permanent Secretary for Transport and Housing (Housing)
Wai-wah HO		(WWH)	Chair of TF-RSS	

Simon WONG (SW) Chair of TF-RFID
Tony LEE (TLee) Environmental Protection Development

PROGRESS REPORT

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3.1 Research on River Sand Substitutes for Concrete Production and Cement Sand Mortar Production (Phase Two)

Members received a presentation by AK from HKU on CIC/EIT/P/012/15 for the endorsement of the final report (English version). The Phase 2 report included the following scope of works:

- Laboratory tests for evaluation on the effects of fines content on concrete and mortar;
- Laboratory tests for investigation on possible substitutes of river sand using crushed waste glass and recycled fine aggregate;
- Field trials of manufactured sand and river sand;
- Draft of recommended specifications for aggregates for mortar;
- Interview with companies.

Members questioned if there was a BSEN (European) standard implemented for Hong Kong's specification. AK responded that there was a European standard for aggregate for mortar but the sieve sizes were totally different. Therefore, the Hong Kong SAR Government Civil Engineering and Development Department produced the local standard - Construction Standard CS3:2013 - Aggregates for Concrete.

Members also wondered if the production process of sand was environmental friendly. AK provided two processes of controlling the fine contents for reference, the water-washing sand and air classification. He explained that the former one was cheaper, yet, a lot of pollution was produced. On the other hand, the later one was greatly adopted in worldwide. Less pollution was produced. However, the air classification could only function with dry fine aggregates.

Some Members wondered the appetite for producing the recycle fine aggregates and if it could be produced in the same plant of doing manufacturing sand. AK explained that there was lack of space for recycling industry in Hong Kong. Besides, the recycling production process of the aggregates was held in Mainland China. The equal products would then be exported to Hong Kong. Thus, Hong Kong's C&D rate was very low as the waste was not produced within Hong Kong. He further elaborated that the plant could use up

to 100% recycled waste in low grade concrete and mortar.

After deliberations, Members endorsed the final report (English version).

(PC and SC joined the meeting at 2:50pm and 2:53pm respectively; AK left the meeting at 3:10pm)

3.2 **Consultancy Services on Development Strategy for the Hong Kong Construction Industry**

(JW joined the meeting at 3:10pm)

JW provided a presentation on Paper CIC/EIT/013/15 to the members. The presentation provided the progress update. Members were invited to comment on Chapter 5 and 7, either in written form or verbal form to the CIC Secretariat in four weeks time after the meeting. Members were also invited to join the consultation forum that would be held on 30 September 2015 to provide recommendation on the Mckinsey report. It was expected that the project would be completed at the end of this year.

Members were invited to provide their comments and feedback on this final draft report to the Secretariat.

[Post Meeting Note: No comments and feedback received from Members on the Mckinsey report]

(JW left the meeting at 3:25pm)

3.3 **Confirmation of the Progress Report of the Previous Meeting**

Members took note of Paper CIC/EIT/R/002/15 and confirmed the progress report of the last meeting held on Thursday, 30 April 2015 at CIC Headquarters, 15/F, Allied Kajima Building, 138 Gloucester Road, Wanchai, Hong Kong.

3.4 **Matter Arising from the Previous Meeting**

VWg updated the following 3 matters:

- Refer to Agenda Item 2.5, the progress update of RFID in Monitoring Movement of Construction Waste would be reported in Agenda 3.5.
- Refer to Agenda Item 2.7, the Task Group on Establishment of Industry Standard for BIM Implementation, the English Version of the BIM Standard was endorsed by the committee on 30 April 2015. It was further approved in the Council Meeting No. 003/15 held on 19 June 2015. It would be published as reference materials and uploaded on CIC website.
- Refer to Agenda Item 2.8, Assignment Brief of BIM Standards to Facilitate the Submission of GBP for Statutory Authorities (Phase One), the Secretariat took note of the comment and would update in preparing the tender.

3.5 Progress Update on the Task Force on Schematic Design for Application of RFID, GPS and Sensor Technology in Monitoring the Movement of Construction Waste

ILg from LSCM updated the Members on the progress of the Task Force. The objective of the RFID trial system was to monitor the dump trucks carrying the construction waste to the landfill center. The original plan was to complete the trial system by the end of July 2015. Yet, there were difficulties on the installation of the system at the North East New Territories (NENT) Landfill site. A technical installation proposal for the pilot test to be carried out for the dump trucks running between NENT landfill was submitted to the contractor of NENT site by LSCM for reference and comment. Another issue was about the workers' insurance coverage. LSCM had certain project amount to cover the liabilities for their research centre but NENT required to buy insurance for the workers as well thus LSCM need to buy two insurance sets. Moreover, MTRC was willing to provide some sites to LSCM for trial run; LSCM would work with them to find suitable construction sites. So that the RFID trial system could be set at the starting point of the MTR site and the end point at the NENT site.

Some Members wondered the timescale to get the RFID system implemented and the public insurance. It was predicted to start off the progress in the middle of August 2015. The pole would then be moved from the Tsing Ma Bridge to the NENT site for installation. Two separate public insurances would be covered. One was the insurance for the pole installation, while the other one would be the insurance for workers at the NENT site. ILg explained the target to

complete the trial system setup in September 2015.

3.6 **Research and Survey on the Construction & Demolition (C&D) Waste in Hong Kong**

A Task Group on Strategy for Management and Reduction of Construction and Demolition Waste in Hong Kong was formed lately. Invitation emails had been sent to all relevant departments, associations and institutions last month. Up till now, six representatives from Development Bureau (DevB), Hong Kong Housing Authority (HKHA), Hong Kong Green Building Council (HKGBC), The Hong Kong Institution of Engineers (HKIE), The Hong Kong Institute of Surveyors (HKIS) and Hong Kong Construction Association (HKCA) confirmed to join the Task Group. However, Environmental Protection Department (EPD) and The Hong Kong Institute of Architects (HKIA) had not yet nominated a representative to join the Task Group. CIC Secretariat would follow-up accordingly.

[Post Meeting Note: Civil Engineering and Development Department (CEDD) nominated Ir Stephen YIU Fan-lai, while The Hong Kong Institute of Architects (HKIA) nominated Mr. Chan Cho Sing, Joel to join the Task Group. EPD replied that they would assign different representatives to attend the Task Group Meetings with reference to the discussion natures, for example, Mr. Andrew LAI would attend the second meeting held on 26 October 2015 to share with the task group about the experience on the previous snapshot survey report conducted in 2013. Mr. Harris WONG would provide advice and assistance to facilitate the future Task Group snapshot surveys at EPD's landfills while Mr. Eddie LEUNG would provide advice and assistance to policy related issues.]

3.7 **Client Summit Reports of the Development of BIM Implementation Strategies for Government Sector; Public Sector and Private Sector**

(TN joined the meeting at 3:48pm)

IK reported the Paper CIC/EIT/P/014/15 and Members were invited to endorse the paper after deliberation.

The reports aimed to assist project clients to work out their own

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BIM implementation strategies and provided decision makers of the project clients with valuable insights and international experiences to adopt the BIM around the world. The Summit report illustrated both the diversity and communality of the issues faced by the project clients in Hong Kong. Suggestions and solutions were recommended in the report. In addition, action plan of first year, third year and fifth year were also included in the report. Some strategic recommendations with respect of planning, adoption, technology and performance were suggested based on the discussion in the summits and workshops.

The followings were highlighted:

Refer to the client summit report; some Members noticed that Fire Services Department and Lands Department did not participate in the Project Clients Summit. Some concerns were raised about the statutory submissions by using BIM for General Building Plan to the Government sectors, which were yet to be agreed among different departments. Some Members welcomed the CIC approach to educate the industry in using BIM. Lastly, it was agreed that gradual progression of BIM adoption was needed for implementation and dissemination to the industry.

After deliberations, Members endorsed the report for the CIC Secretariat to publish the three reports on the CIC website after gaining approval from Council.

[Post Meeting Note: The above-mentioned reports were approved by the CIC Meeting No. 004/15 held on 28 August 2015]

3.8 **Assignment Brief for the Survey on the Potential Utilization of Prefabrication Yard in Hong Kong**

KP reported the progress of the tender to the Members. The Assignment Brief for the Survey on the Potential Utilization of Prefabrication Yard in Hong Kong had been reviewed by him and invited the CIC Secretariat to proceed the tender process accordingly.

CIC
Secretariat

3.9 **Any Other Business**

Regarding to the heavy metal content being found in drinking water, one of the Members suggested Com-EIT to consider the possibility

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to conduct a research study on alternative materials for plumbing water pipes. After much deliberation, it was agreed that this topic was quite controversial at the moment and recommended to be further discussed.

KP reminded Members about the CIC Innovation Award. It was hoped to receive more entries (both local and overseas) and promote the image of Hong Kong. Members noted that the Hong Kong Chief Executive was invited as the guest of honor at the CIC Innovation Award Presentation to be held on 15 December 2015 to deliver a speech.

The Chairman of Com-EIT reported that Mr. Victor WONG, Senior Manager of the CIC would be transferred to the Training & Development Section of the CIC commencing 1 September 2015 and expressed gratitude for his past contribution to the Committee.

[Post Meeting Note: The Government and Housing Authority have already set up three investigating committees to look into the matter of excess lead found in drinking water of public housing estates.]

3.10 Tentative Date of Next Meeting

12 November 2015 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 4 pm