7th International Conference on Tall Buildings
Hong Kong, CHINA
29 - 30 October 2009

Organiser

The University of Hong Kong

Co-organisers

The Hong Kong Institution of Engineers

The Hong Kong Institute of Architects

Principal Sponsor

AECOM

Major Sponsor

ARUP

Sponsors

Aedas

Gammon

協興建築 HIP HING CONSTRUCTION

MEINHARDT

Paul Y 保華建業集團有限公司 Paul Y. Engineering Group Limited

泰昇集團 TYSAN GROUP

VSL intrafor

ICTB-VII

7th International Conference on Tall Buildings

InterContinental Grand Stanford Hotel, 70 Mody Road
Tsimshatsui East, Kowloon, Hong Kong
29 – 30 October 2009

Foreword

On behalf of the Organising Committee, it is our pleasure to welcome you all to the Seventh International Conference on Tall Buildings organised by The University of Hong Kong, and co-organised by The Hong Kong Institution of Engineers and The Hong Kong Institute of Architects.

Since the turn of the 21st century, tall buildings with growing heights, increasingly complicated shapes and innovative structural systems have been built worldwide. China has now become one of the countries in the world where tall buildings are being developed. The new CCTV headquarters building with a unique shape has been finished. The 432-meter Pearl River New City West Tower in Guangzhou has been constructed up to 350 meters high. The construction of the proposed 580-meter Shanghai Center will start at the end of this year. The recent Wenchuan earthquake in Sichuan Province has especially highlighted serious cause for concern over the safety of building structures. All of these have made China a focus of world attention. The comfort, amenity and sustainability of these buildings have been the focus of world attention. In view of the numerous landmark skyscrapers being built all over the world, it is timely to organise an International Conference on Tall Buildings to allow experts and researchers worldwide to share information pertinent to the latest practise, lessons learnt, and research outcomes of tall buildings.

Tall buildings feature prominently in many of the infrastructure developments in Hong Kong namely in office and residential high-rise developments. Like other previous successful conferences in the series, the 7th International Conference on Tall Buildings (ICTB-VII) is founded on a series of prevailing themes ranging from innovative and sustainable design / construction aspects, to comfort and amenity of occupants and social-economic issues as well. The conference, therefore, provides a forum for all construction stakeholders to exchange ideas on how to further advance the development and management of tall buildings so as to fulfill the needs of the society and the end-users.

We would also like to express our sincere gratitude to the keynote and invited speakers and authors of all papers whose contributions have made this conference possible. Our thanks goes to all those who have devoted their time and effort in the organisation of the conference.

Hope you all have a pleasant stay and fruitful exchange in Hong Kong.

Y.K. Cheung
The University of Hong Kong
October 2009

香港大學 The University of Hong Kong

香港工程師學會 THE HONG KONG INSTITUTION OF ENGINEERS

香港建築師學會 The Hong Kong Institute of Architects

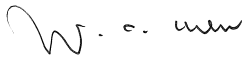
香 港 大 學
THE UNIVERSITY OF HONG KONG

Welcome Message

The 7th International Conference on Tall Buildings is an opportunity for experts and researchers from all around the world to share information related to tall buildings, in terms of the latest practice, lessons learnt, and research ideas and outcomes. It is a forum at which ideas can be exchanged on how to further advance the development and management of tall buildings for the needs of the society, clients, and those who use them. With high-rise residential properties in Hong Kong reaching record heights, the International Conference on Tall Buildings is particularly relevant to the Hong Kong community, and I look forward to seeing many innovative and pioneering ideas emerging from it.

This relationship with the Hong Kong community is one that HKU understands. The University has grown with Hong Kong, and many of our graduates have taken on positions of leadership in society. We will continue to move forward with this dedication to excellence, a strong international outlook, and a commitment to the Hong Kong community.

On behalf of The University of Hong Kong, may I offer my best wishes for another productive and memorable International Conference on Tall Buildings, and I congratulate all those who have worked so hard to make the event a success.



Professor W.C. Chew
Dean of Engineering
The University of Hong Kong

Committees

International Advisory Committee

Professor Derek CLEMENTS-CROOME
University of Reading, UK

Dr. Gary C. HART
Weidlinger Associates Inc., USA

Professor Worsak KANOK-NUKULCHAI
Asian Institute of Technology, Thailand

Professor Hitoshi KUWAMURA
The University of Tokyo, Japan

Professor Guoqiang LI
Tongji University, China

Professor Xilin LU
Tongji University, China

Professor David A. NETHERCOT
Imperial College, UK

Professor Harry POULOS
Coffey Geotechnics, Australia

Professor Jiaru QIAN
Tsinghua University, China

Dr. Leslie E. ROBERTSON
Leslie E. Robertson Associates, USA

Professor Yongjiu SHI
Tsinghua University, China

Dr. Peter SIMMONDS
IBE Consulting Engineers, USA

Professor Dasui WANG
East China Architectural Design & Research Institute Co. Ltd., China

Dr. Lijun WANG
Capital Engineering and Research Incorporation Limited, China

Dr. Qiwen WANG
Shenzhen General Institute of Architectural Design & Research, China

Organising Committee

Chairman

Professor Y.K. CHEUNG
Department of Civil Engineering,
The University of Hong Kong, Hong Kong

Executive Chairmen

Professor Albert K.H. KWAN
Department of Civil Engineering,
The University of Hong Kong, Hong Kong

Ir Peter K.K. LEE
Department of Civil Engineering,
The University of Hong Kong, Hong Kong

Conference Secretary

Dr. Ben YOUNG
Department of Civil Engineering,
The University of Hong Kong, Hong Kong

Members

Dr. Francis T.K. AU
Department of Civil Engineering,
The University of Hong Kong, Hong Kong

Ms. Ada Y.S. FUNG
Deputy Director, Housing Department,
The Government of HKSAR, Hong Kong

Ir Chi Kin LAU
Chairman, Structural Division, The Hong Kong Institution of Engineers, Hong Kong

Ir Professor C.K. MAK
Permanent Secretary for Development, Development Bureau, The Government of HKSAR, Hong Kong

Ir Professor Fred S.H. NG
Consultant, DLS Management Ltd., Hong Kong

Technical Committee

Chairman

Dr. Francis T.K. AU
Department of Civil Engineering,
The University of Hong Kong, Hong Kong

Members

Dr. C.M. Chan
Department of Civil and Environmental Engineering, The Hong Kong University of Science & Technology, Hong Kong

Professor Edmund C.C. CHOI
Department of Building & Construction, City University of Hong Kong , Hong Kong

Ms. Ada Y.S. FUNG
Housing Department, The Government of HKSAR, Hong Kong

Ms. Anna S.Y. KWONG
The Hong Kong Institute of Architects, Hong Kong

Dr. Dennis LAM
School of Civil Engineering, University of Leeds, UK

Dr. H.F. LAM
Department of Building and Construction, City University of Hong Kong, Hong Kong

Professor Nelson LAM
Department of Civil and Environmental Engineering, The University of Melbourne, Australia

Professor Edward NG
Department of Architecture, The Chinese University of Hong Kong , Hong Kong

Dr. Ray K.L. SU
Department of Civil Engineering, The University of Hong Kong, Hong Kong

Professor Brian UY
School of Engineering, University of Western Sydney, Australia

Dr. Kevin K.F. WONG
National Institute of Standards and Technology, USA

Dr. Michael C.H. YAM
Department of Building and Real Estate, The Hong Kong Polytechnic University, Hong Kong

Fund Raising Committee

Convenor

Ir Professor Fred S.H. NG

Members

Dr. Francis T.K. AU

Ms. Anna S.Y. KWONG

Ir Chi Kin LAU

Dr. Ben YOUNG

Programme Overview

29 October 2009 (Thursday)	30 October 2009 (Friday)
8:30am – 9:15am: Registration	8:30am – 9:00am: Registration
9:15am – 9:50am: (Picasso Room) Opening Ceremony	9:00am – 10:20am: (Picasso Room) Keynote Lectures
9:50am – 10:30am: (Picasso Room) Keynote Lecture	
10:30am – 11:00am: Tea Break	10:20am – 10:50am: Tea Break
11:00am – 12:20pm: (Picasso Room) Keynote Lectures	10:50am – 12:20pm: Session 3A: (Picasso Room) Sustainable Development and Green Engineering (II) Session 3B: (Monet Room A) Structural Identification and Retrofitting Session 3C: (Monet Room B) Concrete and Composite Structures (I)
12:20pm – 1:20pm: (Academy Room) Lunch	12:20pm – 1:20pm: (Academy Room) Lunch
1:20pm – 3:00pm: Session 1A: (Picasso Room) Sustainable Development and Green Engineering (I) Session 1B: (Monet Room A) Architectural and Planning Issues Session 1C: (Monet Room B) Seismic Engineering (I)	1:20pm – 3:00pm: Session 4A: (Picasso Room) Structural Forms and Optimization Session 4B: (Monet Room A) Computer Modelling and Analysis/ Innovative Technology Session 4C: (Monet Room B) Concrete and Composite Structures (II)
3:00pm - 3:30pm: Tea Break	3:00pm - 3:30pm: Tea Break
3:30pm – 5:00pm Session 2A: (Picasso Room) Steel and other Metallic Structures Session 2B: (Monet Room A) Fire Engineering Session 2C: (Monet Room B) Seismic Engineering (II)	3:30pm – 5:00pm Session 5A: (Picasso Room) Case Studies Session 5B: (Monet Room A) Vibration/ Wind Engineering Session 5C: (Monet Room B) Foundation
	6:00pm – 8:00pm: (Hong Kong Club) Closing Cocktail Reception **Dress Code: Dinner Attire – Jacket & Tie**

Programme on 29th October 2009

Time	Picasso Room
8:30 am – 9:15 am	**Registration**
9:15 am – 9:50 am	Chairman: Albert K.H. KWAN **Welcome speech** **W.C. CHEW** Dean, Faculty of Engineering, The University of Hong Kong, Hong Kong **Opening address** **Patrick LAU** LegCo Member (Architectural, Surveying and Planning Functional Constituency), Hong Kong
9:50 am – 10:30 am	Chairman: Fred S.H. NG **Keynote lecture:** **The Architect and the Structural Engineer:** **Both Friends and Foes** ***Leslie E. ROBERTSON*** Leslie E. Robertson Associates, USA
10:30 am – 11:00 am	Tea Break
11:00 am – 12:20 pm	Chairman: Peter K.K. LEE **Keynote lecture:** **Harmonizing Tall Buildings in the Built Environment – from the Perspective of Building Control in Hong Kong** ***Choi Kai AU*** Buildings Department, The Government of HKSAR, Hong Kong **Keynote lecture:** **Holistic Considerations for Sustainable Tall Building Design** ***Andrew CHAN*** Arup Group Ltd., Hong Kong
12:20 pm – 1:20 pm	Academy Room (1/F) Lunch

Programme on 29th October 2009

Time	Picasso Room
1:20 pm – 3:00 pm	Session 1A: Sustainable Development and Green Engineering (I) Chairman: Edmund C.C. CHOI and Edward NG **Invited Paper: The Environmental Design of Tall Buildings in High Density Subtropical Cities** ***Edward NG, Justin Zhengjun HE and Xipo AN*** **Invited Paper: Air Ventilation in Cities with Dense High-Rise Developments and Complex Topography** ***Edmund C. C. CHOI*** Designing Vital Urban Environments *Timothy JOHNSON* Strategizing Low Carbon and Low Energy Tall Buildings in China *Han LIN, Hong WANG and David C.S. LEE* High-performance Concrete for Green Construction *Herbert W. ZHENG, Fiona W.Y. CHAN and Albert K. H. KWAN* The Humanism of Cities and Development Strategy of Tall Buildings *Liyong JIANG and Lu GAO*
3:00 pm – 3:30 pm	Tea Break
3:30 pm – 5:00 pm	Session 2A: Steel and other Metallic Structures Chairman: Kang Hai TAN and Albert K.H. KWAN **Invited Paper: Application of Buckling-Restrained Braces in Steel Frameworks against Earthquakes** ***Guo-Qiang LI*** Construction Monitoring of Tall Steel Structures *Xiangsheng DUAN and Xiyuan ZHOU* Study on Elasto-Plastic Similitude Relationship of Steel Bridge Pier Models *Wensheng LU, LI Xiaoling, LI Meng and LU Xilin* Numerical Analyses of Steel Beam-Column Joints Subjected to Catenary Action Under In-Plane Loading *Bo YANG and Kang Hai TAN* Numerical Analyses of Steel Beam-Column Joints Subjected to Out-of-plane Loading *Bo YANG and Kang Hai TAN* Web Crippling Tests of Aluminum Rectangular Hollow Sections *Feng ZHOU and Ben YOUNG*

7th International Conference on Tall Buildings

Programme on 29th October 2009

Monet Room A	Monet Room B
Session 1B: Architectural and Planning Issues	Session 1C: Seismic Engineering (I)
Chairman: Anna KWONG and Ziona STRELITZ	Chairman: J.S. KUANG and H.H. TSANG
Access to and Manoeuvre in Super Highrise Building *Artur C. K. AU YEUNG and Robert P.H. LAM*	Performance-Based Design Approach for Seismic Design and its Application for Building Projects in China *Edward S.C. CHAN, W.L. LEUNG and David C.S. LEE*
A New Urbanity *Stefan KRUMMECK*	Experimental Study of Seismic Performance of Short T-Shaped Columns with Diagonal Reinforcing Bars *Xuanming HUANG and Wanlin CAO*
Remaining Virtuous in a Climate of Decadence: Delivery of Efficient and Practical Buildings in the Context of a Novelty-Minded Market *Alexander LUSH*	Performance-Based Seismic Design for High-Rise Buildings *Man KANG, Yang WANG and Wei LIAO*
Tall Buildings & Urban Livability in Hong Kong *K. S. WONG*	A Simplified MDOF Model for Seismic Analysis of Shear Wall-frame Structures *J.S. KUANG and Kai HUANG*
Analysis of Change in Dynamic Properties of Tall Buildings after Numbers of Earthquake Actions *Weixing SHI and Jiazeng SHAN*	Displacement-Based Rapid Seismic Assessment Procedure for Building Structures *H.H. TSANG, R.K.L. SU, N.T.K. LAM and S.H. LO*
Sustainable Vertical Transportation System for Our Next Generation *Alkin KWONG*	
Tea Break	
Session 2B: Fire Engineering	Session 2C: Seismic Engineering (II)
Chairman: Peter K.K. LEE and Fei-fei SUN	Chairman: Edmund C.C. CHOI and H.H. TSANG
A Discussion on Technical Means of External Thermal Insulation Fireproofing *Guangqi JI and Jinping WANG*	Seismic Response Analysis of National Hall of China Pavilion for Expo 2010 Shanghai Considering Traveling-waves Effects *Hai-Tao BAI, Jiang QIAN and Jiang-Guang YUE*
Fireproof Performance Test Research on Building made of the Sandwich Panels of Steel Mesh Cement with EPS *Guangqi JI, Chunling ZHU, Xiwei YANG, Xiaoling ZHANG, Baochun FENG, Yingshun WANG, Dexin ZHANG, Xiaoyuan HU and Jinping WANG*	Study on Seismic Behavior of RC Composite Perforated Core Wall with Concealed Steel Truss Subjected to Combined Action *Weihua CHANG/ Wanlin CAO/ Dongbin LI/ Fuquan XU*
Fire Fighting in High-Rise Building *Shane Siu-hang LO*	Seismic Performance Analysis Methodology of Large Span Architectural Curtain Walls *Wensheng LU, Baofeng HUANG and Wenqing CAO*
Experimental Research of Car-Fire Spread in Mechanical Parking Building Unit Affiliated to High Buildings *Xuan SUN and Wenguo WENG*	Static-Dynamic Earthquake Analysis for Vibration Reduction of Shear Wall Structure Based on Equivalent Storey Model *Guangjun SUN, Aiqun LI, Zhiqiang ZHANG,/ Ruixin HUANG and Hong JIA*
Solution for Automatic Fire Detection and Fire Extinguishing in Large Space *Yuchen SUN and Yu CAO*	Seismic Analysis of Guang Dong Science Centre With or Without Base-isolation: A Case Study *Yong ZHU, R.K.L. SU and Ji Chao ZHANG*

Programme on 30th October 2009

Time	Picasso Room
8:30 am – 9:00 am	**Registration**
9:00 am – 10:20 am	Chairman: H.C. CHAN **Keynote lecture:** **Foundation System Design for Tall Buildings** ***Harry POULOS*** Coffey Geotechnics, Australia **Keynote lecture:** **From Mass Production to Mass Customization** ***Ada Y.S. FUNG*** Housing Department, The Government of HKSAR, Hong Kong

	Picasso Room
10:20 am – 10:50 am	Tea Break
10:50 am – 12:20 pm	Session 3A: Sustainable Development and Green Engineering (II) Chairman: Andy DAVIDS and Ziona STRELITZ **Invited Paper: Tall Buildings' Contribution to Sustainable Urbanisation and Growth: Less Take, More Give** ***Ziona STRELITZ*** **Invited Paper: A Postcard from Dubai** **Design and Construction of Some of the Tallest Buildings in the World** ***Andy Davids, Julia Lai, Jonathan Wongso, Darko Popovic and Angus Mcfarlane*** Green and Healthy Living in Public Housing *N.M. CHAN, Rosa HO and Stephen YIM* Quality Living in High Rise Domestic Buildings through Building Services Design *Chi Shing HO* Sustainable Public Housing Two Decades of Transformation in Maintenance and Management Practices *H.W. PANG, C.O. CHAN, Allan WONG, L.S. CHAN and Virgil K.L. HSU*
12:20 pm – 1:20 pm	Academy Room (1/F) Lunch

7th International Conference on Tall Buildings

Programme on 30th October 2009

7th International Conference On Tall Buildings
29 – 30 October 2009

	Monet Room A	Monet Room B
	Tea Break	
	Session 3B: Structural Identification and Retrofitting	Session 3C: Concrete and Composite Structures (I)
	Chairman: H.F. LAM and R.K.L. SU Detection of Multiple Cracks on a Partially Obstructed Plate Following the Bayesian Approach *H.F. LAM, T. YIN and H.M. CHOW* Optimal Sensor Placement Method for the Purpose of Structural Health Monitoring *H.F. LAM, H.M. CHOW and T. YIN* Post-compressed Plates for Strengthening Preloaded Rectangular Reinforced Concrete Columns *R.K.L. SU and Lu WANG* Nonlinear Analysis of FRP-Reinforced Concrete Slabs with a Shear-Locking Free Layered Composite Plate Element *Yong ZHU, Sarah Y.X. ZHANG and R.K.L. SU* Effects of Material Strength on Flexural Ductility of Reinforced Concrete Columns *Z.Z. BAI and Francis T.K. AU*	Chairman: J.C.M. HO and H.J. PAM Improving Flexural Ductility of High-Strength Concrete Columns *J.C.M. HO and A.K.H. KWAN* Precast to last - Hong Kong Public Housing Experience *Sze Chuen LAM and Kwok Chuen CHUNG* Displacement-Based Deformation Capacity Design Method of Steel Reinforced Concrete Structural Walls with High Axial Load Ratio *Kai Ze MA and Xingwen LIANG* Concrete Compressive Stress Distribution of RC Members Subjected to Flexure *Jun PENG, Johnny Ching Ming HO, Hoat Joen PAM and Yuk Lung WONG* Cyclic Load Tests of Half Fabricated Half Cast-in-Place Composite RC Walls *H.M. ZHANG, X.L. LU, J.B. LI, L. LU and L.G. WANG*
	Academy Room (1/F) Lunch	

7th International Conference on Tall Buildings

Programme on 30th October 2009

Time	Picasso Room	Monet Room A	Monet Room B
1:20 pm – 3:00 pm	Session 4A: Structural Forms and Optimization Chairman: Philip Kang Hai TAN and Chun-Man CHAN **Invited Paper: Continuous Deep Beams on Spring Supports** ***Philip Kang Hai TAN*** Improving the Cost and Value of Tall Buildings using Computational Design Optimisation *Chun-Man CHAN and Mingfeng HUANG* The Optimum Outrigger Locations in Outrigger-braced Structures with Complex Objective *Guo-Kang ER, Xing-Hua WANG and Shuang-Wen LAN* Diagnosis and Treatment of Cracked Transfer Beams in Tall Buildings *Jianzhong YANG, Ni WANG, Guangjing XIONG and Qifei YANG* Case Base & Data Mining System of High-rise Structure Intelligent Form Optimization *Shihai ZHANG, Shujun LIU, Xiaoyan LIU and Jinping OU*	Session 4B: Computer Modelling and Analysis/ Innovative Technology Chairman: Joseph Y.W. MAK and Ben YOUNG General Procedure of Formulating the Governing Equations for Analyzing Outrigger-braced Structures *Guo-Kang ER and Vai Pan IU* Universal 3D Connection Solid Elements for Building Analysis *S.H. LO, D. WU and K.Y. SZE* Modeling of a SMA-based Self-centering Damper and its Control Performance Analysis *Hong-Wei MA and Michael C.H. YAM* Sustainability Through the Use of Quality and Green Materials *Joseph Y.W. MAK* Application of Combined Isolator System in Multi-Body Structure *Lan WU and Aiqun LI* Research on Buckling-Restrained Braced Frames with Fractional Order Differential Equations *Yanhong XU, Aiqun LI and Xingde ZHOU*	Session 4C: Concrete and Composite Structures (II) Chairman: Fei-fei SUN and Francis T.K. AU Time-dependent Analysis of Frames Taking Into Account Creep, Shrinkage and Cable Relaxation *Francis T.K. AU and X.T. SI* Time-dependent Behaviour of Reinforced Concrete Multi-storey Building Frames due to Shrinkage *C.H. LIU, Francis T.K. AU and Peter K.K. LEE* Estimation of Shrinkage with Creep Effects on Floor Structures of Multi-storey Reinforced Concrete Buildings under Frame Effects *S.C. LAM and C.W. LAW* Predication of Concrete Creep By Multi-Layer Visco-elastic Model *P.L. NG, A.K.H. KWAN, W.W.S. FUNG and J.S. DU* Experimental Study on a Novel Self-centering Rocking Device for Tall Buildings *Fei-fei SUN and Hu CAO* Ductility Calculation of Reinforced Concrete Shear Walls *Lin Jun SI, Guo Qiang LI and Fei Fei SUN* Reinforced Concrete in Shear: a Modified Rotating-angle Softened-truss Model *H.F. WONG and J.S. KUANG*
3:00 pm – 3:30 pm	Tea Break	Tea Break	
3:30 pm – 5:00 pm	Session 5A: Case Studies Chairman: Bernard V. LIM and Francis T.K. AU **Invited Paper: The Hong Kong Community College (Hung Hom Bay Campus) A Case Study in Sustainability in Campus Design** ***Bernard V. LIM*** Design and Construction of an Effective Window Wall System in High Rise Condominiums: A Case Study *D.J. CAESAR, R.C. RICHMAN and K.D. PRESSNAIL* Use of Glass Reinforced Concrete in the Construction of Bel-Air No. 8, Cyberport, Hong Kong *Daniel K.S. KONG, Andrew W.C. KWONG and Hugo H.N. WONG* Modular Flat Design for Public Housing *Wilfred LAI, Clarence FUNG and Connie YEUNG* The Design and Construction of a Fast-track Casino/Hotel Project in Macau *David C.S. LEE, H.Y. LEE and Chester W.M. CHAN*	Session 5B: Vibration /Wind Engineering Chairman: H.F. LAM and Joseph Y.W. MAK The Assessment of the Aerodynamic Performance of Building-Integrated Wind Turbines on Tall Building *Volker BUTTGEREIT/ Stefano CAMMELLI* Practical Application of CFD for Wind Loading on Tall Buildings *Gordon H. CLANNACHAN, James B. P. LIM, Nenad BICANIC, Ian TAYLOR and Tom J. SCANLON* Application of Static-Dynamic Analytical Method to Vibration-Absorptive Analysis of High-Rise Buildings *Rui-Xin HUANG and Ai-Qun LI* The Application of Wind Tunnel Study and Vibration Control in Building Design *C.L. NG, K.C. WONG, David C.S. LEE and Brian LIM* Wind Loads on Tall Buildings in Hong Kong and Macau - A Comparative Study *H.K. NG and Helen P.J. KWAN* Vibration Measurement and Control of Tall Buildings Floor System for Human Comfort *Weixing Shi, Pengfei Wang and Jinwei Huang*	Session 5C: Foundation Chairman: J.C.M. HO and Ben YOUNG Foundation Design for a Tall Tower in a Reclamation Area *Frances BADELOW, SungHo KIM, Harry G. POULOS and Ahmad ABDELRAZAQ* Comparative Study on Dynamic Soil-structure Interaction System with NonLiquefiable and Liquefiable Soil by Using Shaking Table Model Test *Peizhen LI, Peng ZHAO, Xilin LU and Shenglong CUI* Construction of "Large Diameter Hand Dug Caisson" in Downtown of Singapore *Sze Tat NG, Akira WADA and Sei WAKABAYASHI* Innovative Foundation Systems for the High-rise Building TOWER185 *H. QUICK, S. MEISSNER, J. MICHEAL and U. ARLAN* 3D Elasto-plastic Analysis of Piled-Raft Foundation in Tall Buildings *Yuwen YANG* A New Program for Design and Analysis of Pile Group with Raking Piles *G.F. ZHU, K.WANG, P.C. ZHA and C.Z. ZHAN* Office Development - Landmark East at 100 How Ming Street, Kwun Tong, Hong Kong *Alan YAU and Eddy SUEN*
6:00 pm – 8:00 pm	**Closing Cocktail Reception** Venue: The Garden Lounge, The Hong Kong Club, No. 1 Jackson Road, The Central, Hong Kong **Dress Code: Dinner Attire – Jacket & Tie**	**Closing Cocktail Reception** Venue: The Garden Lounge, The Hong Kong Club, No. 1 Jackson Road The Central, Hong Kong **Dress Code: Dinner Attire – Jacket & Tie**	

7th International Conference on Tall Buildings

Closing Cocktail Reception

Date: 30 October 2009 (Friday)
Time: 6:00pm – 8:00pm
Venue: The Garden Lounge
The Hong Kong Club
No. 1 Jackson Road
Central, Hong Kong

Dress Code: Jacket & Tie

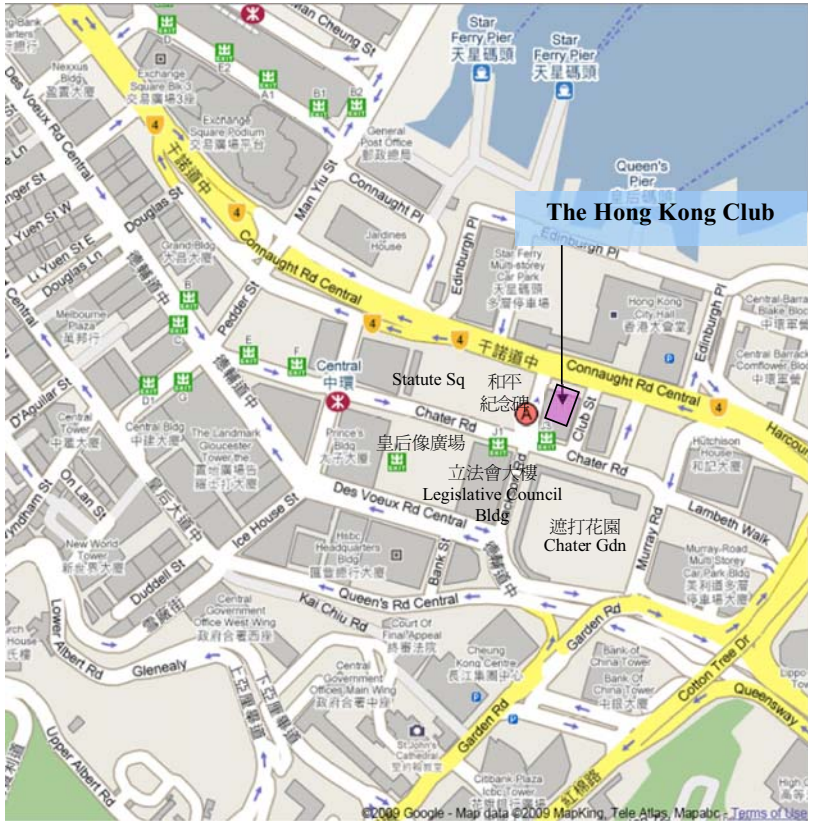
Tel: +852 2525 8251, Fax : +852 2868 4655
http://www.thehongkongclub.hk

Suggested Route to Hong Kong Club from InterContinental Grand Stanford Hotel

MTR

- Walk along Mody Road to Tsim Sha Tsui MTR Station M2.
- Take MTR train to Central Station
- Exit at J3 to Hong Kong Club

Location Map



Notes

Notes

Notes

AECOM

Embracing Building Engineering Excellence

AECOM

The Asia Building Engineering team has been established for over 25 years serving multiple countries in the region. As a key member to the AECOM Global Building Engineering Group, our specialized knowledge is renowned as we support projects throughout the world.

We provide fully integrated multi-disciplinary services to local and global clients. Our project experience encompasses all sectors of buildings and infrastructure projects, from initial concept to completion. We also share knowledge and technical expertise across geographical boundaries, allowing us to support the world's most prestigious projects with innovation, cost-effectiveness and sustainability.

We are experienced in designing structures of different materials for low-rise to very high-rise buildings, for instance, reinforced and pre-stressed concrete, precast and high strength concrete, structural steelwork composite structure, and tension structure. We are also experienced in a variety of building and associated services such as: services integration and coordination with three dimensional modeling, performance based fire design and renewable energy. Our particular skills in alternative designs, design & construct procurement, refurbishment, site supervision, maintenance & repair, temporary works, earthquake design, wind tunnel testing, tall buildings, deep basements, railway structures & environmental systems and green building accreditation are continually applied in our projects.

To learn more about AECOM, please visit www.aecom.com.

1881 Heritage, Former Marine Police Headquarters
Hong Kong, China

AIG Tower
Hong Kong, China

Discovery College
Hong Kong, China

Shenyang International Financial Center
Shenyang, China

Capital Tower
Singapore

York House
Hong Kong, China

Grand Lisboa
Macau, China

Cyberport
Hong Kong, China

Lujiazui Development
Shanghai, China

National Library Building
Singapore