



Technical Visit To The Exchange 106 Project

by Dr Sudharshan N. Raman

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Due to popular demand from the local engineering fraternity, the Civil and Structural Engineering Technical Division (CSETD) of IEM organised a half-day technical visit to The Exchange 106 Project on Thursday, 14 May 2018. A total of 19 participants joined the visit, which included engineers from engineering consultants, contracting firms, and government agencies, as well as faculty members from local higher learning institutions. The ratio of participants represented a good mix of young engineers and experienced practitioners. The delegation was led by Ir. Chong Chee Meng, the then Deputy Chairman of CSETD.

The participants departed from the IEM Headquarters in Jalan Sultan, Petaling Jaya in a chartered coach at 8.15 am and arrived at the The Exchange 106 Project site at 9.30 am. The Exchange 106 Project is located in TRX International Financial Centre of Kuala Lumpur, faces the Jalan Tun Razak on the east, Jalan Kampung Pandan on the south, and Jalan Barat on the west. The delegation were received by the Engineer of the main contractor, China State Construction Engineering (M) Sdn. Bhd. and were led to a safety briefing session. After the safety briefing, the IEM delegation were transported by vans of the main contractor to the Project Office of the main contractor located within the basement of The Exchange 106 Tower, for the project briefing session. The project briefing was done by the Project Director of the main contractor, Mr. David Bian Cheng Wei.

The main contractor for the project is China State Construction Engineering (M) Sdn. Bhd., while the project architects are Mulia Group Architects and PC Architects. The structural engineers for the project are Louie International Structural Engineers and EDP Consulting Group Sdn. Bhd., while Geo Optima, Inc. are the geotechnical engineers for the project. Meanwhile, Rowan Williams Davies & Irwin Inc. (RWDI) are the wind study consultants, and the M&E engineers are Beca Engineering NZ Ltd, and PRIMETECH Engineers Sdn. Bhd.

During the project briefing session, the IEM delegation was presented with various technical, design and construction aspects of the project. The project covers an area of 13,833 square meters, and with a total construction area of 380,000 square meters, building height of 452 meters above ground, 6 floors basement, and 106 floors above ground. Upon completion at the end of 2018, it would become the tallest building in Malaysia. The steel columns in the tower tilt inwards at an angle of 1.35° starting from the 4th floor upwards, and the area per floor is reduced from 3160 m^2 to 2600 m^2 . There are three separate units of annexes of 4-storeys, 6-storeys and 4-storeys, which are located at east, south and west sides of the tower respectively. The project's material consumption include a total of 150,000 cubic meters of concrete, 33,000 tons of steel reinforcement, and 25,000 tons of structural steel members. The floors' typical areas are between 2500 m^2 to 3800 m^2 , and it has a total of 59 elevators. A 4-dimensional BIM software was used for the monitoring and management of the construction processes of the project.

Upon completion of the project briefing session and a lively question and answer session, the delegation were brought on a site tour to selected floors within the tower, namely to Level 84, Level 88 and Level 91. The project construction team shared further details on the architectural, safety, materials, design, and construction aspects of the project during the site tour, during which the delegation was presented with various first-hand information and details of this unique project. After the site tour which lasted approximately for 75 minutes, the delegation were led back to the meeting room for another session of question and answer. The delegation had further chance to clear their doubts on various aspects that they had observed during the site tour. The visit was concluded by thanking the project team for their cooperation and the presentation of a token of appreciation to the Project Director.



The Exchange 106 Tower



A group photo of the IEM delegation with the project members



The project briefing session



The IEM delegation being briefed during the site tour



The presentation of the token of appreciation to the Project Director by Ir. Hooi Wing Chuen, the then Advisor of CSETD