

ONLINE INTERNATIONAL CONFERENCE & EXHIBITION INDIA
CONSTRUCTION WEEK –2020
“REVIVING CONSTRUCTION INDUSTRY IN POST COVID WORLD” –
A JOINT INITIATIVE OF CIDC & INDSTT

**MINUTES OF THE FIRST MEETING OF THE STEERING COMMITTEE
PRE ENGINEERED AND PRE-FABRICATED CONSTRUCTION ON
OCTOBER 10, 2020 (ONLINE PLATFORM)**

Participants :

Mr Y P Kajale, Chairman
Vice President (Engineering, Planning & Design),
B G Shirke Construction Technology Pvt Ltd

Mr P V Rao Co Chair
Joint MD, Pennar Industries

Dr P R Swarup, Director General, CIDC

Mr S D Naskar
Vice President (Projects), B G Shirke Construction Technology Pvt Ltd

Mr P V Mohan
Director, Kirby Building Systems & Structures India Pvt Ltd

Prof. N. Raghavan FNAE, FICE (UK), FIE(I)
Professor of Practice, Dept of Civil Engineering, IIT Madras

Dr. Ajay Chourasia
Sr. Principal Scientist, CSIR-Central Building Research Institute, Roorkee

Dr Girish Chandra Joshi
Senior Consultant, Uttarakhand State Disaster Management Authority

Mr Arun Kumar
Scientist F (CED), Bureau of Indian Standards

Prof Dr Pradeep Ramachandrala
Head Dept of Earthquake Engg, IIIT, Hyderabad

Dr Abhay Gupta
Director, Skeleton Consultants Pvt Ltd

Mr Arun Singh, Sr. Advisor, CIDC

Mr. Sunil Mahajan, DDG, CIDC

Mr Rajeev Jain, Director (VT), CIDC

Mr Ashutosh Bhardwaj, Director (Corporate Affairs), CIDC

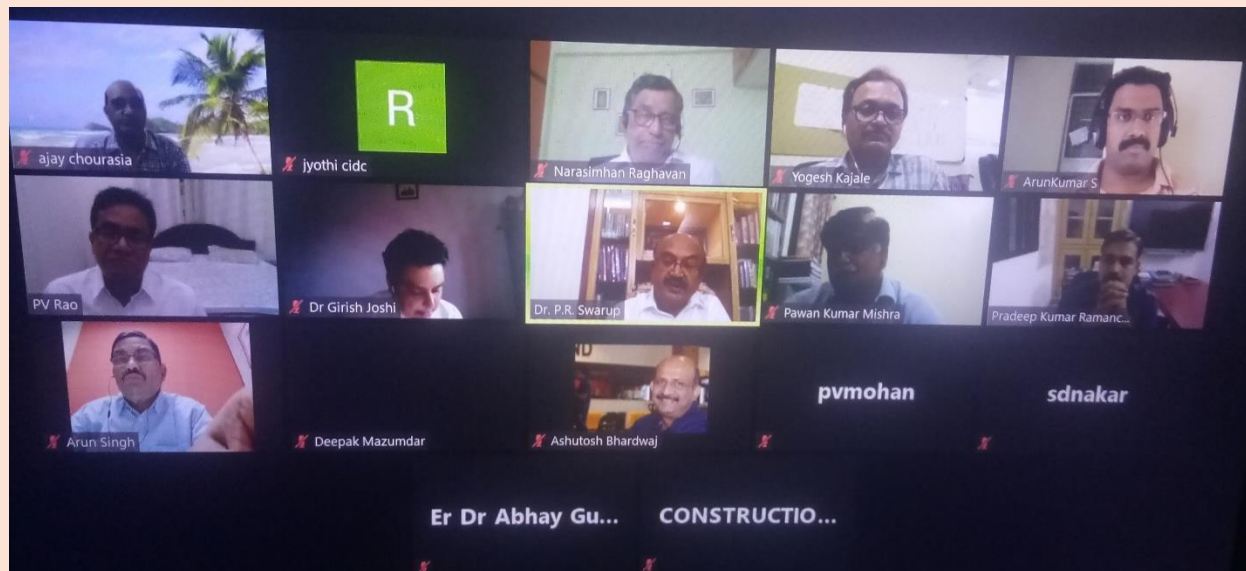
Mr Deepak Mazumdar, Sr Addl Director, CIDC

Mr P K Mishra, Addl Director, CIDC

Mrs. M Jyothi Rani, DGM (Projects), CIDC

The meeting started as scheduled at 1200 hrs. Chairman welcomed the members and informed that this meeting has been organized to discuss the role of Pre Engineered and prefabricated Construction for the forthcoming Online International Conference and Exhibition India Construction Week – 2020. He asked Members to provide details of the background and action needed in this regard.

After the brief introduction by members, Chairman invited Dr P R Swarup, DG, CIDC to present an overview of the International Conference and Exhibition India Construction Week.



Dr P R Swarup, DG, CIDC :

Dr Swarup informed the Committee about the adverse effect COVID pandemic had on Indian economy especially the Indian Construction Industry. In order to address various issues related to Construction and allied industries and to explore opportunities available during this crisis time, CIDC has decided to organize the International Construction Week and gave the background of the conception of the Conference. He detailed the structure of the Conference and formation of various Steering Committees to focus on various issues related to all sectors.

The Conference will provide a single platform for discussions on various issues related to revival of the industry and provide new and alternate solutions. Exhibition will display new products and technologies which provide cost effective and sustainable solutions for the improving the state of the Industry. He highlighted the need for the Revival of Construction Industry and invited inputs and support of all the stakeholders of the Industry.

The gist of the discussions are appended below :

Mr Y P Kajale, Chairman :

- ❖ Policy reforms
 - ❖ Technology – Manufacturing, logistics, site management
 - ❖ Contract Management
 - ❖ Testing and Certification (Online)
 - ❖ Skill Development – semiskilled workers, erectors etc.
 - ❖ Role of equipment - Mechanical Support
 - ❖ Actual case studies – Real Achievements & failures
 - ❖ User feedback
 - ❖ Architectural aspects
 - ❖ Affordability
 - ❖ Awareness creation
- Modules – Online sessions / Webinars
 - Curtain raiser events in various states

Mr P V Rao, Co-Chair:

- ❖ The economic impact of the 2020 coronavirus pandemic in India has been largely disruptive and it has magnified pre-existing risks to India's economic outlook.
- ❖ Supply chains are either broken or severely affected. All aspects of managing supply chains will go through substantial changes and these issues need to be addressed along with the contraction of demand in several industry segments
- ❖ Organizations would need to adapt to this new reality and consider building supply chain resilience.
- ❖ Urgent need is a robust fiscal stimulus by the government to spur domestic demand and to sustain investment. The primary focus of fiscal stimulus should be on the informal sectors, micro, small and medium enterprises (MSMEs), the self-employed and casual workers affected by COVID-19
- ❖ Government should come forward to spend large amounts in infrastructure so that money circulation will increase consumption levels across all sectors.
- ❖ The sharp decline in incremental credit during the financial year 2020 was driven by slowing economic growth as well as heightened risk aversion among lenders. Banks should come forward to lend so that more industries will come forward to expand and new units would be started.
- ❖ With the increase in domestic consumption and the spur in industrial growth with the help of banks in lending loans, demand will grow for per-fab construction in India.
- ❖ India will be the new destination for foreign investors which will lead exploring new opportunities in various sectors.



Mr S D Naskar :

- ❖ Regulation of Government
- ❖ Money for construction – Easy Loan / Easy Financing
- ❖ Develop an alternate model beyond PPP for easy construction

Mr P V Mohan:

- ❖ Impact on Allied Industries to be assessed
- ❖ Work from Home models to be developed
- ❖ Government to direct all central government agencies to use pre-engineered buildings
- ❖ Incentivize and push this sector
- ❖ New Technologies to be adopted in construction
- ❖ Plug in Models
- ❖ Skilling and training people at various site locations
- ❖ World is looking at us we need to accept the challenge

Prof. N. Raghavan :

- ❖ Suggested to include BMPTC officers in the Steering Committee
- ❖ Promotion of Precast Concrete & Pre-Engineered Steel buildings, which have a great future. We should develop a Nodal Agency which will promote this technology with the help of Government, Academia and R&D agencies, and Industry Body for Precast Construction and will also take care of Testing & Certification.
- ❖ Promotion of this technology to Architects and Consultants is also important. Also, teaching in Engineering Colleges.
- ❖ Quality, safety and environment friendly aspects of prefab construction to be highlighted
- ❖ Modern technologies need to be popularised; Artificial Intelligence, AR / VR technologies, IoT, BIM etc are some of the modern technologies to be popularised
- ❖ Lean Construction Management is a great modern concept which will improve the delivery of precast concrete construction considerably. Productivity has to be improved considerably for factory work and site work.
- ❖ Complete Integration from concept to commissioning/ Facilities Management using Digital platforms, BIM, etc required.
- ❖ Standardization is very important; need to develop the ICI Handbook on Precast Concrete further to be a comprehensive Handbook similar to PCI Handbook of USA, with the help of BIS and an Industry Body for Precast Concrete construction. Identify common agency for Testing & Certification
- ❖ Separate Specifications and Contracts clauses are required for prefabricated construction and are to be developed further from the initial efforts given in ICI Handbook on Precast Concrete

Dr Ajay Chourasia :

- ❖ Construction Site Management using Advanced Technologies - IOT, Remotely / online construction monitoring, Virtual Reality
- ❖ Unified User friendly software for precast/prefab construction
- ❖ Guidelines and Manuals for Government and Industry
- ❖ standardization, Modularization of prefab elements
- ❖ development of test protocols and facility under one roof for all aspects structural, non-structural, water tightness, comfort, durability etc
- ❖ demonstration park
- ❖ design thinking
- ❖ curricula for graduate and post-graduate students
- ❖ practicable / implementable detailing of joints and prefab elements in precast/prefab system - performance evaluation.

Dr Abhay Gupta:

- ❖ Standardization of Pre Engineered Steel Building for Warehousing applications: Loads, analysis, Design and construction
- ❖ Accreditation of Manufacturing facilities
- ❖ Performance monitoring & maintenance of prefab and precast structures
- ❖ Shifting the mode of construction – Onsite to offsite

Three light house projects of BMTPC, in steel are being designed by Skeleton Consultants Pvt Ltd Noida at Indore, Lucknow & Agartala. Would be interested to contribute on the design side.

Dr Girish Chandra Joshi :

- ❖ Sustainable Development Framework – SDG 2030
- ❖ Reduce the risk
- ❖ Policy Document to Government – under Atmanirbhar Bharat Abhiyan
- ❖ Massive training & capacity building program to be taken up in Uttarakhand



Prof Dr Pradeep Kumar Ramachandrala :

- ❖ Quality
- ❖ Ethics

Mr Arun Kumar:

- ❖ The lacking of adequate healthcare facilities across the country is not balanced with the corresponding population of cities/towns and the same should be increased
- ❖ Before PEB construction is permitted, a thorough checking/testing the structural systems for safety from loads, forces and effects have to be ensured for each type.
- ❖ For tropical country like India strict NO to 100/120 mm thick concrete walls particularly in housing segment, as the same is very poor in thermal performance.
- ❖ The proposed event should complement (if not supplement) the actions under GHTC of MoHUA.
- ❖ The Disaster Resilient Infrastructure of NDMA including Sendai Framework to be addressed mandatorily 100% in PEB construction.
- ❖ At least in precast construction, only standard sizes of doors, windows, ventilators, staircases should be used.
- ❖ The sizes of rooms should be modular/multiples of 10cm.
- ❖ There shall be no gaudy glass facade buildings but buildings to have elegant looking windows to serve the purpose. This way, all PREFAB construction to meet the minimum sustainable aspects or equivalent to SILVER rating of LEEDS/ GRIHA.
- ❖ Even if the housing is for EWS, the size of such housing units should NOT BE 35 or 40 m2. A minimum of 60 m2 with 2 rooms, kitchen, bath and water closet should be the bare minimum for any housing unit. Also, provisions should be available in the designs to club 2 units later depending on affordability and need.
- ❖ The minimum requirements of NBC 2016 and cross referred Indian Standards as in Part 6 Structural Design, Section 7A and 7B (and IS 15196:2020 and IS 15917:2020) to be adhered.
- ❖ Modern Construction.

In conclusion, Chairman requested the members to send their inputs to the Conference Secretariat regarding the structure of the Conference and topics to be included for deliberations during the Conference covering various aspects related to the pre-engineered and prefab construction.

The meeting ended with the vote of thanks to the Chair.

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