

ASSOCIATION NEWS

PAPER MEETINGS

JUNE 5, 1970

In the evening Seminar, Dr. A. K. Basu of Central Public Health Engineering Research Institute, Calcutta gave a talk on "Environmental Disruption in Japan—Spot Studies" in the CMPO conference room. Dr. Basu dealt the subject from three angles—(i) Socio-economic aspect, (ii) People's participation, (iii) Governmental efforts to deal with the problem. The Talk was quite informative and was very much appreciated by a large number of participants. For the benefit of our readers the talk is published in the form of a paper in this issue. Sri S. Basu nicely summed up the talk.

JUNE 19, 1970 :

Sri R. N. Mukherjee, Superintending Engineer, C.M.P.O. gave a talk in the CMPO conference room on the subject—"UCOPAN System of Housing" in which he suggested the use of pre-fabricated concrete panels for construction of roofs and walls. He disclosed that any construction made with these Universal Concrete Panels (UCOPAN) would provide adequate protection against weather without causing much of physical discomfort to the occupants. Moreover, this new technique would reduce the cost of construction by about 40%. The existing laws of house building demand use of 2 to 3 times more materials than

what is actually needed for structural stability and safety and also force the public to use scarce materials.

In the concrete panels IRC fabric may be used to reduce the overall cost. The reinforcements so required for making these panels are much lower than the reinforcements provided in the orthodox type of construction. It has been also experimented and observed that a 10 inch brick wall is good enough even for 5-storey buildings.

Finally he suggested that as the cost is dependent on every individual item of house construction, effort should be made to reduce cost in every possible way and to cite an instance, Sri Mukherjee suggested use of precast concrete door and window frame.

Sri S. Chatterjee, our President in summing up stated that a co-ordinated move should be made to effect change in laws of civic bodies to allow certain deviations in house building. He extended by saying that this modification is necessary for the benefit of the general public as we can always make necessary alteration in the Governmental construction. He also stated in the course of discussion that a module developed in C.M.P.O. would economise the total cost of house building including its sanitation, electrical fittings and such other items.

JULY 10, 1970 :

In a lecture arranged by our Association at the C.M.P.O. Conference room. Sri S. Chatterjee, Chief Research Officer, Road & Building Research Institute, West Bengal talked on the subject— "Soil condition for Building Houses in Salt Lake Area". Sri Chatterjee said that North Salt Lake Area was a bowl-shaped low-lying marshy land. To ease out the population pressure of the city, the then Chief Minister of W. Bengal, late Dr. B. C. Roy initiated a land reclamation scheme in Salt Lake Area in 1957 which aimed at filling 3.75 sq. miles of swampy area with dredged river silt in the first phase. Depth of fill ranges between 3-8 ft. Developmental work in the form of providing facilities like roads, water supply, sewerage, drainage etc. is going on in the 3.7 sq. miles reclaimed area. Reclamation work has further started in the additional 2 sq. miles area.

He said that the subsoil characteristics in the Salt Lake Area is predominantly clayey in nature having very high values of Atterberg's limit and natural moisture content leaning towards liquid limit and sometimes exceeding it. Naturally the soil has a very poor shearing resistance and the soil is highly compressible. There is a layer of organic clay (Peat) at least 15 ft. in thickness at a depth of 15-20 ft. from the top surface. The condition of the soil at a depth beyond 30-35 ft. improves considerably. So, construction of multi-storied tall structures do not really pose any problem as the foundation for these structures are always taken down to deeper depths until good soil, sand or bed rock having high bearing capacity is encountered. The extra

expenditure incurred for making pile foundation or floating foundation gets compensated with the increase in number of floors.

The construction of residential buildings from two to four stories would pose the real problem as there is bound to have differential settlement of the organic layer of soil. To guard against this, foundation treatment is a must and the cost involved would vary between 4-8 Rs. per sq. ft. depending on the depth of sand fill and also the number of stories constructed. On replying to a question Sri Chatterjee categorically said that the soil condition in salt Lake Area is in no way comparable to standard Calcutta Soil (Bearing capacity 1 Ton/sq. ft.), although the Salt Lake authorities are trying to present a rosy picture to the plot holders. Byelaws have been so framed as to shift the responsibility to the Consulting Engineers who will have to issue a certificate of safety of the foundation including the bearing capacity and settlement.

AUGUST 5, 1970 :

On this evening paper meeting Sri R. N. Banerjee, Project Engineer, Gauhati gave a Lecture on the subject "Master Plan on Sewerage & Drainage of Gauhati Metropolitan District". Sri Banerjee said that approximately 100 sq. miles area come within the administrative boundary of Gauhati Metropolitan District. Gauhati Municipal area covers about 5.5 sq. miles and the Greater Gauhati Municipal Area is slightly above 20 sq. miles. The municipal area is quite developed where water supply facilities are existent. There is no sewerage system in the city and the interval drainage system is limited to road side open drains. Main drainage channel of the area is

the Bharalu river discharging into river Brahmaputra when level permits. Every year the water level in the river goes upto an average level of 166.00 (above mean sea level) and to check the backflow of water from the river, there is an existing sluice at the Bharalu river, which is stated to be in a bad shape.

The existing catchment area of Bharalu river very big, a portion of the catchment area is separated and the discharge from the new catchment area is proposed to be carried through a lined open channel along the side of the existing National Highway dischar-

ging into the Dipar Bill which is connected with the Brahmaputra river through Khanna river. The greater municipal area is designed on the basis of 6 month frequency storm whereas the rural area of the Metropolitan District is designed on the basis of 2 month frequency storm.

Considering the future condition, sewerage facilities are proposed in the municipal area. The sewerage system is designed on the basis of 80% of average per capita water supply. Average per capita water supply in the year 2001 is taken as 50 g.p.c.d.

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The 13th Indian Standards Convention

will be held in Bombay during 13-20 December, 1970. There will be following Technical Sessions :

- S—1 Safety on Roads and Standardisation.
- S—2 Standardisation of Ready-made garments and Hoslery goods.
- S—3 Standardisation and Export promotion.
- S—4 Standardisation of Electrical Installation in Buildings.
- S—5 Standardisation as a tool for the development of petrochemical Industry.
- S—6 Economy Through variety Rationalisation.

All letters and other correspondences in connection with the Convention shall be marked '13th Indian Standards Convention' on the envelope and addressed to :

SHRI MONOHAR LAL, Organising Secretary,
13th ISI Convention, Manak Bhavan, New Delhi-1
