



DI-02

Constructability and performance of continuous masonry

H. Sooriyaarachchi, J. M. N. U. J. Menike, J. K. S Gamage,
P. A. M. Chandani and D. D. Edirisinghe

*Dept. of Civil and Environmental Engineering, Faculty of Engineering,
University of Ruhuna, Sri Lanka*

Clay bricks and cement sand blocks are the most usual types used for wall panel construction. However, the shortage of raw materials and cost has led to development of many alternatives for conventional brick wall construction. This study focuses on the development of semi mechanized shutter for continuous masonry construction, the mortar mixes that can use for such construction and structural behaviour of such masonry construction. Wall panel construction using this technique was pioneered by Dr. R.N.S. Kulasinghe in early 80s' as a low cost and rapid construction technique. However the mould used has not been able to harness the full potential of the technique of continuous masonry wall panel construction. Semi mechanized mould developed in this study has effectively eliminated all the drawback of original versions and allow construction of full wall heights of continuous masonry made rapidly and efficiently. In this study both economical aspect and strength of these new masonry units is evaluated and compared against the conventional masonry. Results show that continuous masonry has very high strength compared conventional brick masonry. Detail cost analysis indicates they are also very cheap to construct.

Keywords: continuous masonry, constructability, structural behaviour of masonry walls, work study