

Design and Testing of Masonry Slab System

Antonio Nanni¹ and Louis F. Geschwindner²

Abstract:

Eight strip-like elements of a concrete masonry slab system using newly developed units and assembly process were tested in the laboratory as simply supported beams. Variables included span and flexural reinforcing bar size, number, and grade. The objectives of the experiment were to study the performance of the system and to verify the design results based on the working stress method of the national building code for masonry structures. Through this research, it was determined that the system behaves satisfactorily and experimental results correlate well with design calculations. Concrete masonry floor and roof slabs may soon become a feasible alternative to hollow core concrete slabs and wood/steel systems for low-volume projects.

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¹ Asst. Prof., Dept. of Arch. Engrg., Pennsylvania State Univ., University Park, PA 16802

² Assoc. Prof., Dept. of Arch. Engrg., Pennsylvania State Univ., University Park, PA 16802