

Abstract

PREFABRICATED PREFINISHED VOLUMETRIC CONSTRUCTION MODULE

- 5 A novel prefabricated prefinished modular room system is proposed for low or high rise building development that incorporates prefabricated or precast volumetric system. This innovative system comprises a normal-weight or lightweight reinforced concrete base floor slab, staggered concrete or steel/concrete composite columns/walls at four corners, and in-filled with lightweight panels or dry walls, 10 lightweight frame at ceiling level as bracing and to hold ceilings. The concrete base floor slab and integrated column/wall and ceiling bracings will form a rigid and robust structure will be a free-standing system by itself, prefabricated off-site with or without architectural finishes and building services. The modules will be transported to the construction site for installations. The prefabricated system will be installed and 15 connected at construction site between each other with floor ties and peripheral ties and connected to core walls by mechanical or cast-in-situ slab to form a final building structures.

[Fig. 19]