DEPARTMENT OF BUILDING

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METHOD STATEMENT FOR REINFORCED CONCRETE FRAME STRUCTURE OF RESIDENTIAL BUILDING

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ABSTRACT

One of the most commonly used contemporary construction products is reinforced concrete. By blending cement, sand, and aggregates with water, concrete is "artificial rock." Fresh concrete can be molded into almost any shape, which is an inherent advantage over other materials. Concrete became very common following the 19th century creation of Portland cement; its restricted resistance to stress, however, avoided its broad use in construction. Steel bars are integrated in concrete to resolve this deficiency in order to create a composite material called strengthened concrete. In the early 19th century, European technicians developed developments in contemporary reinforced concrete design and building exercise. Reinforced concrete is currently being used widely in a broad range of engineering applications.

Buildings consist of beams, columns, walls, floors, and roofs. Reinforced concrete is ideally suited for the construction of floor, roof slabs, columns and beams in residential and commercial structures. Reinforced concrete grid floors comprising beams and slabs are widely used for covering large areas like conference halls where column-free space is an essential requirement.

It proves to be cost-effective, durable, fireproof, and reliable construction material. The versatility of concrete is another crucial characteristic through which an architectural effect can be achieved that cannot be obtained using other construction materials.

Multistory reinforced concrete buildings are routinely adopted for both residential and office complexes.

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CONTENTS **PAGE NO**

CHAPTER 1.0

INTRODUCTION

1.1 Background and Scope of Study

RC frames are made of horizontal elements (beams) and vertical elements (columns) connected by rigid joints. These buildings are casted monolithically — that is, to behave in parallel, beams and pillars are casted in a single procedure. RC frames provide strength by bending in beams and pillars to both gravitational and horizontal stresses. There are several subtypes of RC frame building: • RC frames with / without filling walls • RC frames with strengthened filling walls • Ductile RC frames with / without filling walls

Industrialized Building System (IBS) is a word used only in Malaysia by means of a building method that transferred, put and installed concrete parts in a plant or controlled setting, either off-site or on-site. IBS is also regarded as prefabricated or prefabricated building, Modern Construction Method (MMC) and off-site building. Malaysia's Construction Industry Development Board (CIDB) encourages the use of IBS as it will enhance building performance and productivity through numerous instruction, promotional programs and rewards.

The conditions and categories supplied by the CIDB have also been misinterpreted as a restricted scheme for building construction only, while IBS can also be understood as an strategy or method that enables the design to be less labor-oriented and quicker as well as satisfying performance concerns. The state rendered it mandatory to cover 70 percent of the IBS scheme in the building job for all public initiatives.