



اَوْنِيُوْرَسِيْتِي تِي كُونُوْلُوْمِي مَارَا
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ECS 358

CIVIL ENGINEERING DESIGN PROJECT

REINFORCED CONCRETE BUILDING

DESIGN PROJECT

&

PROJECT BASED LEARNING (CASE STUDY)

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1.1 INTRODUCTION

1.1.1. Requirements of building-by-law, fire safety regulations

Every structure wants to be built must follow to a set of rules to ensure that it is safe to use. In Malaysia, a law called Uniform Building by Law 1984 (UBBL 1984) was utilized to standardize the safety of a building by government. UBBL 1984 is a Malaysian building code that specifies the minimum criteria for street, drainage, and building control and construction. Preliminary, submission of plans for approval, space, light and ventilation, temporary works in connection with building operations, structural requirements, constructional requirements, fire requirements, fire alarms, fire detection, fire extinguisher and fire-fighting access, and miscellaneous are the nine sections of the UBBL 1984.

In the fire safety rules and regulations, it said definition of fire is a reaction that happened when a combustible material and oxygen is exposed to the source of heat or torch. From it we can know that fire will occur when at the place have all the criteria which are oxygen, heat and fuel. The fire cannot occur when have only one criteria. Then, everything that harmful to people should have the safety aspect which for fire safety definition is action plan by application of science and engineering principals for fire prevention and protection in a particular building and strategies to reduce fire hazards during a fire incident. The protection is aspect of fire prevention, control and extinguisher for a certain area based on availability of risk in that area. Fire can be extinguished by removing any one of the elements of the fire tetrahedron. Consider a natural gas flame, such as from a stovetop burner. The fire can be extinguished by do several steps such as turning off the gas supply, which removes the fuel source and application of water, which removes heat from the fire faster than the fire can produce it and etc.

2.4 CONCLUSION

As a conclusion, the flexible pavement is commonly be used all around the world because of the initial cost which is not expensive compare to the rigid pavement. The cost might be low but the maintenance should be regularly. For this road, to design the flexible pavement is enough because of the usage vehicle is not really high. The grade of the bitumen that use for the pavement have to choose the perfect grade according to the country weather. As in Malaysia, we can provide the bitumen grade of 60 / 70. It is because Malaysia has high temperature which the bitumen grade can adapt to the weather in term of the softening point.