



To Develop Commercial Project for Jalgaon District as per UDCPR

Kalyani S. Chaudhari^a, Pankaj P. Bhangale^b

^a PG Student, Department of Civil Engineering, Shri Sant Gadge Baba College Of Engineering and technology, Bhusawal, 425203, India

^b HOD, Department of Civil Engineering, Shri Sant Gadge Baba College Of Engineering and technology, Bhusawal, 425203, India

ABSTRACT

In this project, an attempt has been made to plan a G+2 commercial complex along with basement parking as per the rules of UDCPR in Jalgaon District. This project work involves planning and drawing of a typical multistoried building. This commercial complex provides all the facilities under one roof including shops, market, food court, office work space, etc. with good water supply and sanitary arrangement. This commercial complex is all planned and designed in AutoCAD as per UDCPR.

Keywords: Commercial complex, UDCPR

1. Introduction

With the increasing population, the demands and needs of people are also increasing. Considering all the demands, a commercial complex provides many facilities under a roof. A commercial complex satisfies all the basic needs of people in a go. It includes grocery shops, vegetable shops, kitchen needs, daily needs, food court. It also provides office spaces for the people who work online. It also provides coffee shops, internet connections, and so on. Also provides parking in the basement to avoid the traffic outside the commercial complex. As the building is a commercial complex providing various facilities, it also increases the employment for the local people. This will also affect the growth of the city. As it is a multi storey building, it also reduces the use of land as compared to the single storey building. As it provides all the facilities at one place, it also saves the time of the people.

1.1 Overview of Project

The idea behind this work is to provide various facilities under a roof. Along with the parking area.

1.2 Objective of Project

- To provide various facilities under one roof
- To save the time of people
- To avoid traffic by providing parking
- To provide safety for the vehicles
- To provide employment
- To reduce the use of land

1.3 Motivation of Project

As the population is increasing rapidly so the needs are. To provide facilities at one place and to avoid wastage of time, this project is being provided. And then it will also provide the employment.

2. Literature survey

A) Analysis and Design of Commercial Building

The author presents the plan, examine and outline of a vertical general office building of G+4 storey and explore its execution under different loading conditions. The fundamental objective is to evaluate current Indian Standard design practice and to give outline rules utilizing ETABS and this Software

used to analyze and design particularly the buildings. Because of the facilities gave in this product at the modelling stage, the structures can be modelled according to the arrangement of the members from the project in Practical, and this software considers of beams, columns as line members; slabs, staircases, walls are as area members. Taking the horizontal loading impacts of Wind and Seismic forces; in the design of this plan, author brought dynamic loading alongside the Static loading and Live loads according to IS Code.[8]

B) A Study on Design of Commercial Building

He attempted to plan and design a G+8 storied commercial building. This project work involves planning, analysis, designs and drawings of a typical multi storey building. This commercial having all facilities under one roof, designed with shops, super market, Food court, Net point, Coffee shop, Office space etc., with very good water supply and sanitary arrangements. The planned commercial building frames in modeled in STAAD Pro various load combinations are included in the frame analysis and the lateral loads. The amount of concrete and steel required is calculated. The structural design has been manually done. The estimate of the building is prepared on the basis of plinth area rate. Necessary structural drawings are enclosed at appropriate places. [5]

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Conclusion

This project will make life easier by providing various day to day facilities under one roof. As it also provides basement parking, that will avoid the traffic. Also save time by providing almost everything under a roof.

References

- [1] Unified Development and Control Promotion Regulations, 2022
- [2] Harish C., Gauri S., Kavya J., Priyanka M. , 'Analysis and Design of Multi Storey Parking Building', International Research Journal of Engineering and Technology, ISSN e-2395-0056, Volume 8, Issue 7, July 2021, pp 1740-1742.
- [3] Ashutosh Jain, Dr. D.K. Jain, 'Earthquake Resistant Design of buildings 2020: A Comparative Study of Old and Revised Provisions in Indian Seismic Codes', International Journal of Creative Research Thoughts (IJCRT), ISSN 2320-2882, Volume 8, Issue 8, August 2020, pp 776-789.
- [4] Shradhesh Rajuji Marve, Abhijit Nanaji Chalkhure, Sarvesh Rajendra Jumde, Rohit Murlidhar Khobragade, Ankit Gurudas Chunarkar, Shubham Maroti Thakre, 'Design and Analysis of Multi-storied Car Parking Building (G+2)', International Journal of Innovative Research in Science, Engineering and Technology (IJIRSET), ISSN e-2319-8753, Volume 9, Issue 4, April 2020, pp 1988-1996.
- [5] K. Prabin Kumar, Gopi Bala Vinay, 'A Study on Design of Commercial Building', International Journal of Pure and Applied Mathematics, ISSN 1314-3395, Volume 119, 2018, pp 2785-2789.
- [6] Kiran Kumar.J, K.E.Pravin, 'Planning, Analysis and Design of (G+5) Hospital Building using STAAD Pro', International Journal of Pure and Applied Mathematics, ISSN 1314-3395, Volume 119, 2018, pp 4823-4829.
- [7] S. Harish, Ramaprasad Reddy, 'Design and Analysis of Auditorium by using STAAD Pro', International Journal of Innovative Research in Science, Engineering and Technology, ISSN e-2319-8753, Volume 6, Issue 7, July 2017, pp 14034-14050.
- [8] Mounika.Pallapolu, Aquila Angel , K. Prasanthi, 'Analysis and Design of Commercial Building', International Journal of Civil Engineering and Technology (IJCIET), ISSN 0976-6316, Volume 8, Issue 4, April 2017, pp 1445-1451.
- [9] Chaitanya Kumar J.D., Lute Venkat, 'Analysis of multi storey building with precast load bearing walls', International Journal of Civil and Structural Engineering, ISSN 0976-4399, Volume 4, 2013, pp 147-157.