



iJRASET

International Journal For Research in
Applied Science and Engineering Technology



INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

Volume: 9 Issue: VII Month of publication: July 2021

DOI: <https://doi.org/10.22214/ijraset.2021.36477>

www.ijraset.com

Call:  08813907089

E-mail ID: ijraset@gmail.com

Practical Study of Residential Society

Prof. P. S. Mote¹, Rushikesh Gaikwad², Pavan Hiray³, Namrata Gaikwad⁴, Dnyaneshwar Shahane⁵, Vaishnavi Hatte⁶

¹Assistant Professor, Dept. of civil Engineering, Jspm's I.C.O.E.R, wagholi, Pune.

^{2, 3, 4, 5, 6}U.G. Student, JSPM's I.C.O.E.R, Wagholi, Pune

U.G. Student, Civil Engineering, JSPM's Imperial College of Engg. & Research, Wagholi, Pune

Abstract: *The project of this residential building was very successful. It has all the amenities that can make life easier and happier. We have taken this project to understand the function and system to build a best residential building in future which will help us to achieve good knowledge of work and things to be considered while construction of residential buildings.*

This project has helped us to achieve practical experience and basic concepts clearly. Also we learned how to take care of clients' desirable flat and how to build according to that. We have learnt how to build the amenities like club house, gym, kids play area, jogging track, etc and give them a great infrastructure for eg. Jogging track :- it should have concrete blocks arranged in a patterned colour and track should be surrounded with plants and trees and width of the track should be spacious. We also learned how to build and where to build the things that must have in the flats and building of residential construction that includes lift, Refuge area, electricity connection, fire alarming system installation, etc. In this project we did take part in the plan of flat construction and we observed the process from making wall till painting and finishing of it. We did help to build the wall and column construction with the help of the workers and under the guidance of chief engineer. By the help of this project we learned to use our knowledge at best level and construction of buildings that is good in infrastructure, good for comfortable and lavish lifestyle and at reasonable cost. Overall this project has given us practice experience and knowledge so that we can perform better and give out best in our career as a civil engineer.

Keywords: Residential Building, amenities,

I. INTRODUCTION

The Construction Industry is one of the most important and significant sectors that supports the economic development of a country. It contributes to the economy about 8–10% on an average in different countries, and promotes growth, provides employment to the masses, and act as a linkage between the economy and other industries. The construction sector is the engine of growth for a country and creates a flow of services and goods with other sectors. The sustainable building approach has a high potential to make a valuable contribution to sustainable development. Sustainability is a broad and complex concept, which has grown to be one of the major issues in the building industry. The idea of sustainability involves enhancing the quality of life, thus allowing people to live in a healthy environment, with improved social, economic and environmental conditions. A sustainable project is designed, built, renovated, operated or reused in an ecological and resource efficient manner.

The Residential project is named Godrej Rivergreens Manjari which offers accommodation in the configuration of 1 BHK, 2 BHK, 3 BHK residential apartment. Among many amenities, some of the prominent include acupuncture pathways, jogging/walking track, kids play area, multipurpose room, 24 hr security, firefighting equipment, club house and many more. Rivergreen is a complete package of amenities & safety. About Rivergreens Manjari, an upcoming latest residential apartments in Pune by Godrej Properties. It is planned with modern amenities to develop spacious residences. Godrej Properties has recently launched a 60+ acre integrated township at Manjari Pune.

II. LITERATURE REVIEW

- 1) In[1] Zhongmin Wang, (2014): "The earthquake resistance detection method for high-rise residence" To solve this problem, an earthquake resistance detection method for high-rise residence based on maximum entropy algorithm is proposed. According to the strength of impact force that the residential building materials can be borne, the pressure-bearing detection model of residential building materials is established. In[2] Shobhan Majumder, Poornesh, (2019): "A Review on Working, Treatment and Performance Evaluation of Sewage Treatment Plant for residential building", Ensuring proper wastewater treatment and disposal is as important for protecting community health as waste water treatment, and immunization programs. Untreated wastewater can spread disease and contaminate drinking water sources. Operational efficiency is always of utmost importance in treatment facilities and this has driven innovation in the sector for quite some time

- 2) In[3] Yin.Y.L., (2013): “Construction project cost management based on BIM (Building Information Modeling) technology”, The construction project cost management based on BIM will be one of the effective ways to improve the efficiency and profits of construction industry. In order to establish China's construction project cost management mode and develop strategies based on BIM, a construction project information management mode based on BIM and cost information integration system are presented. Two strategies on project cost management based on BIM technology are given. The results may be helpful to improve cost management level in construction industry.
- 3) In[4] Bon-Gang Hwang (2012): “Green building project management: obstacles and solutions for sustainable development”, Green building construction is earning a place in construction industry, and, with augmenting cognizance of environmental issues and growing concern over climate change, sustainable construction is gradually being put forth globally. However, construction of green buildings are still encounters impediments, as there is a lack of proper project management framework for such projects., this study aims to identify common obstacles encountered during management of green construction projects, ultimately proposing some solutions to overcome the barriers
- 4) In[5] Tarja Hakkinen (2011): “Barriers and drivers for sustainable building”, What are the actual barriers and drivers for sustainable building? A literature review, interviews and case studies are presented to address this question. Sustainable building is not hindered by a lack of technologies and assessment methods, but is instead beset with organizational and procedural difficulties entailed by the adoption of new methods.
- 5) In[6] hang, J.Y (2011): “Integration of renewable energy technology in building”, The main “energy saving indicator,” from among nine green building indicators, evaluates the electrical power consumption of air conditioners and lighting. This study developed a small indoor personal office system with a 500W proton exchange membrane fuel cell (PEM fuel cell) as the power source, composed of LED indoor lighting, air fan, LED table lamp, notebook computer, printer, and acoustic equipment. Under continuous operations of 24h, this office system will generate 12kwh of electricity, which reduces 7.656kg of carbon dioxide output. If continuously operated for 1 year, it will generate 4,320kwh electricity, which reduces 2,756.16kg of carbon dioxide output. In addition, the side product water can be recycled as landscape water

III. METHODOLOGY

It is important to first develop the project concept, including defining the society and configuration requirements for the proposed supportive housing project. The society selection process is most successful when it is a methodical search for the site that best meets established criteria, including size, location, proximity to services and price factors that will help ensure the project fulfills the needs of future tenants. Finding society having better amenities, 7-tier security, Developed infrastructure of area, have smart feature for future purpose

A. Establishing Society Selection Criteria

- 1) *Scale*: The scale or size of the proposed project should relate to the level of need for the housing identified, as well as to the capacity of the organization to develop and manage the property. Scale also should be consistent with the height and density of the surrounding buildings.
- 2) *Location*: As with all real estate decisions following factors must be evaluated:-
 - a) *Public Transportation*: Sites should have good access to public transportation options that serve important destinations for the tenants, such as supportive services providers, employment, health care, shopping and recreation.
 - b) *Neighbourhood Amenities*: Projects should be located in neighbourhoods that have residential amenities, such as affordable shopping (especially supermarkets), public libraries, post offices, banks, parks, open space and recreational facilities.
 - c) *Public Schools And Related Programs*: For projects serving families, the sites should be in close proximity to public education resources such as public schools, public or private preschools, or Headstart programs, school readiness programs, and after-school enrichment and recreation programs.
- 3) *Selection Of Society*
 - a) Finding the area of need for improvements
 - b) Study the society according to present scenario.
 - c) Demand of infrastructure needs or budget or funds what we require
 - d) Finding the society having better amenity and facility
 - e) Finding the society having better safety and security.
 - f) Select society with smart technologies and other specification that will help to live in comfort space.

IV. RESULT

- 1) *Solution over Parking Issues:* Automatic multistoried car parking system helps to minimize the parking area. In the modern world where parking space has become a very big problem. This automatic car parking system enables the parking of vehicles, floor after floor and thus reducing the space used. Here any number of cars can be parked according to the requirement
- 2) *Solution over High Maintenance Charge:* To avoid this situation, it is necessary to install solar panels for every floor, parking area, etc. also reuse of conservation of electricity. Also install water meter for every flat, according to use of water residence pay there charges
- 3) *Solution over Safety Issue:* Make a free panic button:- make a free app that connects different web services. It gives users the ability to make a “emergency button,” which makes a great panic button. You can set up the emergency button to call for help
- 4) *Solution Over Electric Energy Conservation:* One of the best options for energy conservation is the installation of solar panels, smarter more connected home, ultra efficient heat pump, magnetic refrigerator, advanced window control, next generation insulation, reflecting roofing materials, brighter better lighting, Insulation and Air Sealing Energy Efficient Doors, Windows and Skylights Efficient building heating and cooling systems

V. CONCLUSION

1. After the completion of the study of this project we are able to understand the importance and difference between the real construction work and theoretical work. With the application of both the knowledge we can construct a sustainable, comfortable and best infrastructural buildings. By this projects we have elevate our knowledge and perform at our best as civil engineering.
2. We have also learned that how to build all the necessary amenities like club house, kids play area, jogging track, gym, etc which will provide the clients a comfortable and luxurious apartment to have a great lifestyle. These amenities also includes the safety and security system like fire alarming system, 24/7 CCTV cameras, secured vehicle parking and trained security guards on the main gates and to each individual building of the society
3. We have observed and gracefully solved these problems with the help of workers and under the guidance of the chief engineers. These problems includes parking issues, high electricity bill, etc.

REFERENCES

- [1] Zhongmin Wang, -The earthquake resistance detection method for high-rise residence. 2014
- [2] Shobhan Majumder, Poornesh, - A Review on Working, Treatment and Performance Evaluation of Sewage Treatment Plant for residential building, 2019.
- [3] Yin.Y.L., Construction project cost management based on BIM (Building Information Modeling) technology (2013)
- [4] Bon-Gang Hwang, “Green building project management: obstacles and solutions for sustainable development” (2012)
- [5] Tarja Hakkinen “Barriers and drivers for sustainable building”, (2011)
- [6] hang, J.Y, “Integration of renewable energy technology in building” (2011)



10.22214/IJRASET



45.98



IMPACT FACTOR:
7.129



IMPACT FACTOR:
7.429



INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

Call : 08813907089  (24*7 Support on Whatsapp)