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PLOT MASTER – Innovative Solutions for Building Planning

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Abstract

In our Project we are aiming to make the "PLOT MASTER", which is an innovative excel based application. This application aims to provide regulations used in Architectural planning. In the Architectural planning various regulations, specification, etc., are considered for appropriate planning which done manually requires more duration for the calculations. While doing this calculation there is a chance of error or miscalculation. Therefore to avoid doing this, the "PLOT MASTER" is introduced, which provides the accurate regulations FSI (Floor Space Index), side marginal distance, height of room, TDR (Transferable Development Rights), etc., which avoids any mistakes / errors and minimizes the time. These required regulations are shortlisted from the standard document UDCPR (Unified Development Control and Promotion Regulations). These regulations, specification are further edited in MS EXCEL in conditional formatting.

Key Words:

Plot Master, UDCPR, MS Excel, FSI (Floor Space Index), TDR(Transferable Development Rights), conditional formatting, Regulations, Specification.

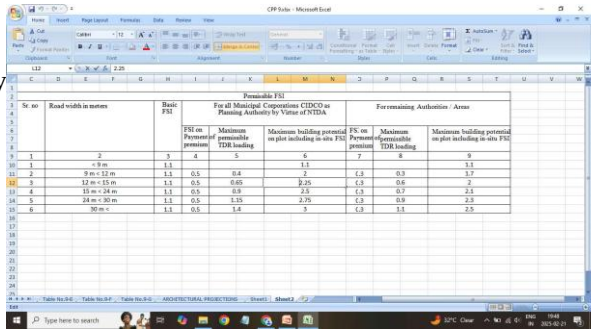
1. Introduction

In Civil Engineering Planning various regulations are considered for appropriate

architectural design. To provide such regulation various specifications, documents (UDCPR) are read which is time consuming and a lengthy process. To minimize the lengthy process we introduce the “PLOT MASTER” which is an excel based application. In this application, we provide various aspects required for planning such as FSI (Floor Space Index), TDR (Transferable Development Rights), side marginal distance, parking Requirements, Height of Habitable Room as per regulations provide in UDCPR. Industry engineering, construction, urban planning, landscape architecture, and interior design. System requirements typically include Microsoft excel, and other website to calculate FSI.

2. Data Collection

The Unified Development Control and Promotion Regulation (UDCPR) serves as a blueprint to simplify and manage urban growth and land usage across different areas. This framework seeks to offer uniform rules and benchmarks to build, plan, and construct infrastructure, buildings, and other land uses. It ensures that expansion stays in check, remains sustainable, and fits with the bigger picture of urban progress. Microsoft Excel is a spreadsheet program that helps analyze data do math, and create visuals. Users can sort information into rows and columns, use math formulas, draw graphs, and work with various tools to handle data. Conditional Formatting in Excel (Short Overview) Conditional Formatting in Excel changes how cells look based on certain rules or conditions. This tool makes data easier to understand by highlighting key numbers, patterns, or unusual values.



For example, we can tried this application to learn more information about the project:

FOOT2FEET Application

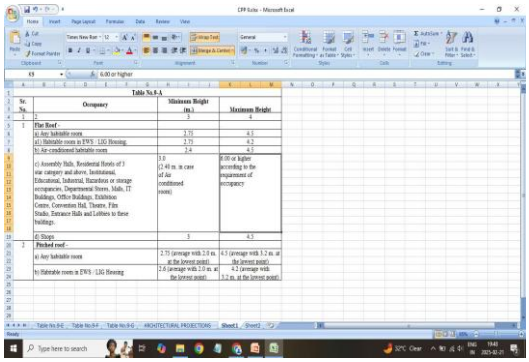
Foot2Feet started in Pune on September 1, 2018. This platform helps with construction and land-related tasks. It links users to local experts who can handle building plans clear land, and get needed approvals. The app also has tools to figure out Floor Space Index (FSI), side margins, development costs, and parking needs. What's more, Foot2Feet gives access to 7/12 extracts and ready reckoner rates online. Its goal, To make building easier for people and companies.

We can read the UDCPR to learn more information about the project:The Unified Development Control and Promotion Regulation (UDCPR) is a framework designed

to streamline and regulate urban development and land use across various regions. The UDCPR aims to provide consistent guidelines and standards for the development, planning, and construction of infrastructure, buildings, and other land uses, ensuring that growth is controlled, sustainable, and aligned with the broader goals of urban development.

3.Methodology Followed

This project took a step-by-step approach to reach its goals. We started by looking at lots of past studies to find what was missing. We used a qualitative method first checking out the UDCPR (Unified Development Control and Promotion Regulations) to pick out the rules and specs we needed. We put this info into tables in Excel then tweaked it with conditional formatting to make it easier to grasp how the app should work. We tried out an app called FOOT2FEET as a test run. We got our data from the standard guide that architects and engineers use for building rules.



We picked out what we needed and put it in Excel in the right format. We made sure our info was solid and trustworthy. We also kept things open and honest throughout the process. Our method aimed to make sure our findings were spot-on, relevant, and useful for solving the research problem.

4.Conclusion

The calculations demonstrate that the proposed building design complies with local building regulations and optimizes the use of available space. The calculated FSI, TDR, Side margin and height of rooms provide a comprehensive framework for the building's design and construction. These calculations can be used to obtain necessary approvals from local authorities and to guide the construction process. By providing such application architectural planning can be more effective and efficient which is helpful for developing civil engineering sector.

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6. The paper "Transfer of Development Rights: An Effective Tool for Sustainable Urban Development" is authored by:

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