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Revitalization of Work Spaces and Building Façade of Government Office Building

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Abstract: ***Probably the most important building in the city is the Municipal Corporation Administration Headquarter. The Municipal Corporation offers all the infrastructure and services required, such water and drainage, public parks, and other amenities that make a city more livable. Therefore, in order for a city to develop, the administrative structure must be planned with consideration for the Municipal Corporation's operations, the type of the job being done there, the comfort of the workers and visitors, as well as the facility's security. In the context of India, the municipal corporation's administration building lacks the fundamental interconnectedness of various places and functions. Particularly, there is no link between the city's biggest organize. During the last ninety years of its existence, this Civic Body has grown into an organization with the responsibility of beautifying the city and providing civic services. This civic body has always laid stress on quality of service. During this period the Municipality provided an building norms, façade, building shape and building envelop, in the area. Open land were covered and reclaimed land has been utilized for construction of public utility services as well as greenery.***

I. INTRODUCTION

Municipal Corporation Administration body constituted for the city of a certain population. It represents the region and its residents. Municipal Corporation is the supreme structure of local self- government. Establish act of the state legist and is charged with certain obligation and discretionary duties. Municipal Corporation of Delhi is the municipal corporation that governs most of Delhi, India. The Municipal Corporation of Delhi was replaced by three new bodies, the North Delhi Municipal Corporation, the South Delhi Municipal Corporation and the East Delhi Municipal Corporation in 2012. But it was again reunified on 22 May 2022. The MCD is among the largest municipal bodies in the world providing civic services to an estimated population of more than 11 million citizens in the capital city. MCD is one of three municipalities in the National Capital Territory of Delhi, the others being New Delhi Municipal Council, and Delhi Cantonment Board. The municipal corporation covers an area of 1,397.3 km².

Every citizen of the particular region has an indirect or direct relationship with the governing body that citizen might have never visited a Municipal Corporation but has indirectly influenced by a governing body in day to day life. So, there is a need to bring transparency and allow the common man to access the government building.

During the last ninety years of its existence, this Civic Body has grown into an organization with the responsibility of beautifying the city and providing civic services. This civic body has always laid stress on quality of service. During this period the Municipality provided an building norms, façade, building shape and building envelop, in the area. Open land were covered and reclaimed land has been utilized for construction of public utility services as well as greenery.

II. TOPIC JUSTIFICATION

Delhi is the big metropolitan city and fast developing city in India the government has Delhi municipal corporation is divided into three bodies, East Delhi Municipal Corporation (EDMC), North Delhi Municipal Corporation (NDMC) and South Delhi Municipal Corporation (SDMC), 2022 as Municipal Corporation of Delhi. The head office of the unified MCD is located at Dr. S.P. Mukherjee Civic Center, JLN Marg, New Delhi. Municipal Corporation of Delhi is one of the largest municipal bodies in the world providing civic services to approximately20 million citizens of Delhi. It occupies an area of 1397.3 Sq. Kms. which is sub- divided into 12 Zones i.e. Centre, South, West, Najafgarh, Rohini, Civil Lines, Karol Bagh, SP-City, Keshavpuram, Narela, Shahdara North & Shahdara South. The present proposal of municipal building in Dwarka New Delhi for the municipal council office with large number of staff and various high class officers, therefore, planning new municipal building in the need of the time for representing as an iconic structure for the city to govern and manage the different function of Municipal Corporation.

Just like most of the other government buildings, the municipal Corporation of many cities is not well throught of in terms of functioning, accessibility, public involvement, the usability of spaces (restricted or public accessible) , building façade, envelop and ventilation.

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III. BACKGROUND STUDY, DATA COLLECTION

A. *Architectural Intervention*

1) The project is envisaged to be one of a kind administration headquarter which caters to all kind of need and requirement of the Municipal Corporation.
2) The building will not only design as a social working spaces but also as a social gathering space and a venue for exhibition and interaction which shall include interactive space and landscaping to generate public interest.
3) Design of administration headquarter would be such that it would mesmerize the public and create a strong visual impact on the visitors.
4) Design and planning would be in such a way that the traffic flow would be hassle free.
5) The proposal would be design oriented with proper detailing of structure and service that would be required for Municipal Corporation building.
6) The interior of the building should be designed for the employees to provide a better work environment which could be achieved by well- planned massing and universal design.
7) The building needs to be sustainable at a certain extent and must adopt green technologies as it will be the example for the upcoming developing in the city.

Scale in Context

Scale is the most basic way of expressing the most fundamental meaning like, power or weakness. Through scale, building show the hierarchy of importance in context.

a) *Size:* Larger the size means larger the power.
b) *Height:* Taller the object means higher the Authority.
c) *Weight:* More Weight stability and Domination.
d) *Compatibility with Surrounding:* More contrast means more the detachment peculiarity.

B. *Formal Shape and Expression*

Formal shape and formal language in buildings transform these fundamental meanings of scale to a higher level of expression, like a monumental neo-classical, totalitarian building trying to pass itself off as a continuation of an ancient value.

1) *Symbolic Representation:* More Ornamentation means more it gets idealized.
2) *Transparency and Visibility:* More Opaque means more Mysterious
3) *Complexity:* More Abstract means less Clear
4) *Spatial Organization:* Spatial organization is used to censor the existing social structures.
5) *Accessibility and Invitation:* Definite access means more Segregation.
6) *Flow:* Formal flow means more Control.

C. *Architecture of Democracy Security*

The Ministry of Urban development drafted a Model Municipal Law, 2003 which was circulated to state governments.(Fig.1) The rationale for the lack of a centrally administered Municipal Model is that local bodies need to be flexible to respond better to local requirements. Two broad models are commonly in use.

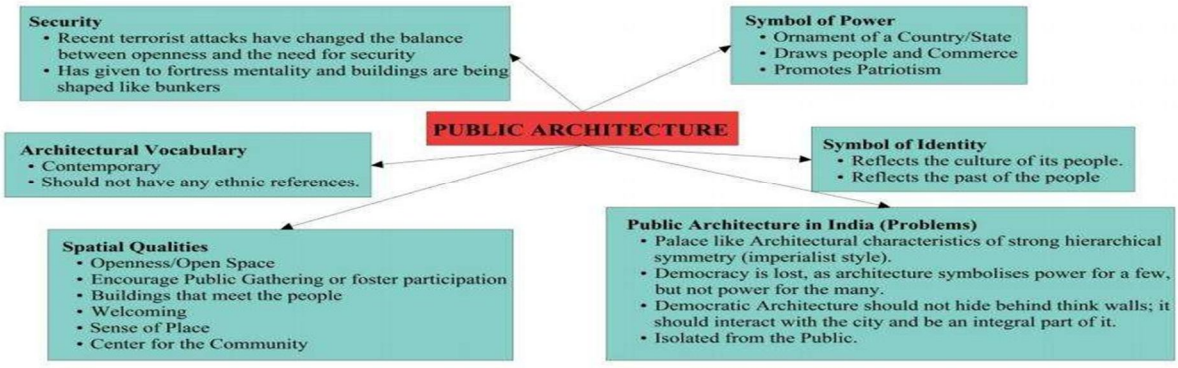


Figure 1- Architectural public vocabulary flow chart

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IV. FUNCTIONS OF MUNICIPAL CORPORATION

Coming to the listing of functions which are assigned to a Municipal Corporation, there are two broad practices in trend in the country. Functions assigned to corporations, particularly the obligatory ones, are more or less the same in all states. Uniformity is, thus the key-note, any difference is uncommon. And, what is more, the difference may occur only in the listing of a certain functions. The following functions are generally assigned to corporations in all the states.

V. OBLIGATORY FUNCTIONS

1) Supply of water: The management and maintenance of all municipal water works and the construction or acquisition of new works necessary for a sufficient supply of water for public and private purpose.
2) Supply of electricity: The lighting of public streets, municipal markets and public buildings vested in the corporation.
3) Road transport services: The naming or numbering of streets and of public places vesting in the corporation and numbering of premises.
4) The construction and maintenance of public hospitals and dispensaries: For the isolation and treatment of persons suffering or suspected to be infected with a contagious or infectious disease and carrying out other measure necessary for public medical relief
5) Lighting, watering and cleaning of public streets and other public services.
6) Securing or removal of dangerous building and places
7) Removal of obstruction and projection in or upon streets and other public places.
8) Vaccination and inoculation
9) Registration of births and deaths.
10) Regulation of places for disposal of the dead: The maintenance, change and regulation of places for the disposal of the dead and provision of new places for this purpose and disposing of unclaimed bodies.
11) Provision for primary education: Maintaining, aiding and suitably accommodating stocks for primary education.
12) Maintenance of fire-brigade.
13) Publication of annual reports and returns on administration of the corporation.

VI. AIM

To design a Municipal Corporation headquarter for the city of delhi to cater all the functions of city's governing by considering various design factors such as connectivity, aesthetics, circulation to increase public involvement & create an iconic building for the city to attract the much needed attention to such buildings.

1) To plan public spaces in the complexes which can become a centre for community interaction and encourage public gathering.
2) While at the same time providing security to the users through intelligent design and planning

VII. OBJECTIVES

A. *Design and Architectural Expression*

1) To design structures that reflects the culture of the people and can become the identity.
2) To design structures with contemporary expression but taking inspirations from the rich architectural history of the region.
3) To design a series of spaces within the buildings that promote public participation & intrest in working government building with better working environments.
4) To design a public building considering all the architectural elements such as aesthetics, circulation, climate etc.

B. *Sustainability*

1) To design structures that are climate responsive and energy efficient.
2) To design structure using local materials that can hold against the weathering of several decades and help the buildings blend well with the natural environment.

VIII. SCOPE

1) The project scope is to designed 'A' grade administration headquarter for existing 'C' grade Delhi city Municipal Corporation.
2) The scope to design iconic Sustainable green building which will set an example for rest of the city and promote Sustainable architecture concept.

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3) To create transference to allow the common man to access the municipal building
4) The size and diversity of the project, suggests that each area will have unique features that define both, the challenges and opportunities to stimulate investment and generate a desirable level of success.

IX. LIMITATION

During case study of Municipal Corporation it would be difficult to study the some of the internal spaces and services part of the Corporation due to its privacy concerns and also difficult to get information about total working strength and every individual function in particular Municipal Corporation to security & privacy concern The design proposal would be limited to only A Grade Municipal Corporation not for A+ grade. The building will be sustainable to a certain extent only.

X. METHODOLOGY

A. Theoretical Background

Understanding administration of Municipal Corporation and their relationship with the city. Study of recent Municipal Corporation headquarters designs in India. Study of various techniques to achieve sustainable design solutions in Indian context.

B. Identification of Problem & Analysis

To be familiar with the major challenges in the problem. To study the major cultural and climatic context of the region. To be familiar with the major requirements for the government from the new administration headquarters Municipal Corporation.

C. Data Collection

1) To carry out case studies of similar projects built in India after independence. To carry out detailed library study to know the basic standards of each kind of required spaces to be designed.
2) To carry out a visual and physical survey of the site and its surroundings. To know the soil bearing capacity, underground water table, vegetation, site topography, water bodies etc. To collect information about the site from government records, documents and satcllite imagery
3) To carry out a detailed study of Building Bye-laws of the area, and requirements of Building Design clearance from various authorities in the region.
4) To collect climatic and meteorological data about the area and know the various natural disasters the region is prone to.

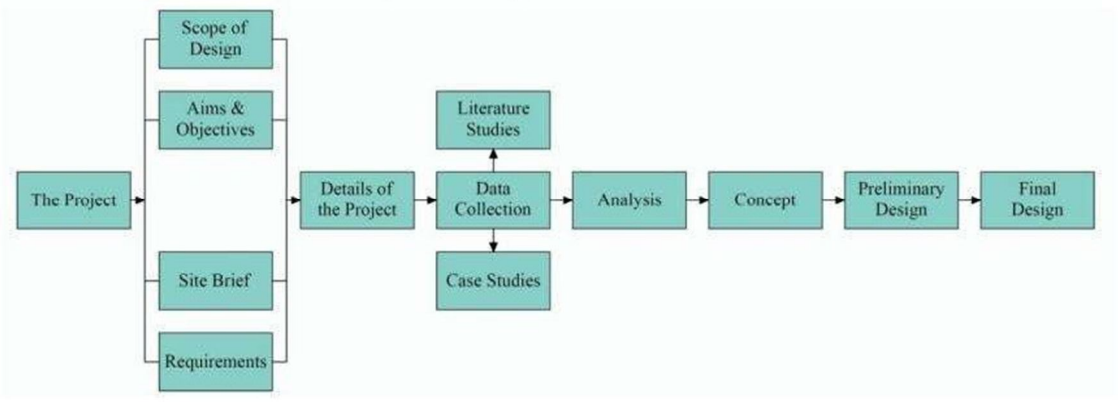


Figure 2- Methodology flow chart

XI. CONCLUSION

1) The building has been registered with LEED- IGBC for certification and aims to receive the Gold rating for this project.
2) The project also features a rainwater harvesting system with 13 groundwater recharge pits for harvesting surface rainwater and collection tank for terrace rainwater.
3) A biogas plant has also been constructed to generate cooking gas for the project.
4) In addition, a sewage treatment plant of 0.150 mld along with a water purification system has been installed at the premises.
5) The treated water is used for cooling towers, flushing and gardening.

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6) Sustainable materials in the form of GRC and manufactured stone have been used for dry cladding. This ensures a ventilated facade and keeps interiors cooler.

7) The glass does not overpower the boldness of the structure; and a minimal percentage of glass in and around the structure has been kept.

8) A white, single-ply roofing system was installed to reflect away unwanted solar gain. This strategy, coupled with the benefits provided by the collectors blocking the solar radiation from reaching the roof surface, greatly reduces the radiant heat gains on the roof.

9) A 16.000 gallon rainwater collection system providing water for toilet flushing and site irrigation has been installed to reduce water needs and minimize rainwater run-off problems.

10) Light shelves have been installed on the south facing windows in order to bounce light deep into the building and help balance the day lighting provided by the Power Roof's north facing glass. They also help shade the lower view glass.

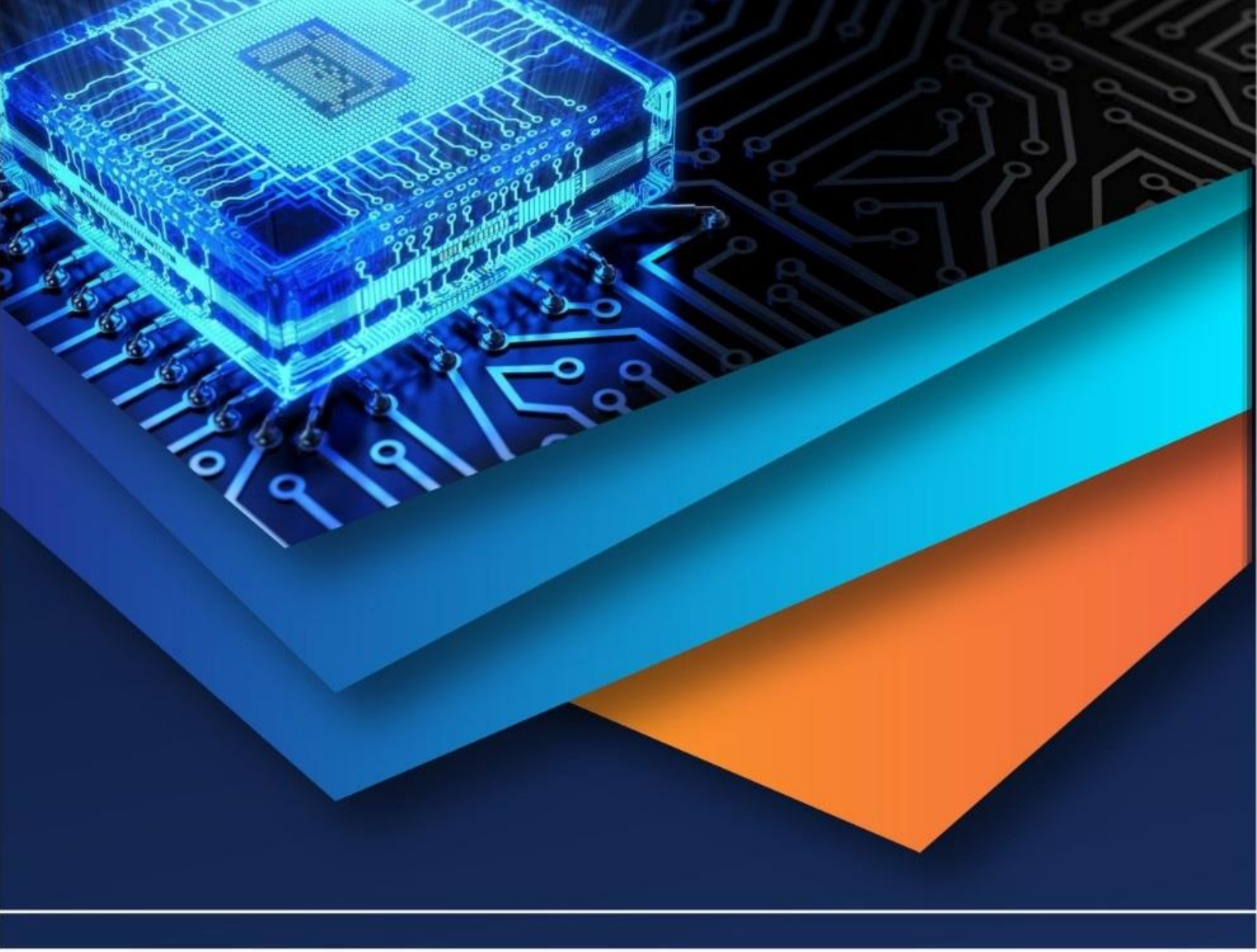
11) High-efficiency heat pumps have been equipped with solar hot water coils to provide cost effective heating as well as cooling.

12) Suspended, indirect lighting fixtures have been installed to provide glare-free supplemental light doing the limited time that day lighting is not adequate.

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