

# Extraordinary spatial environment is Fostering by the fusion of urban qualities and ecological balance in the architecture of a building: a case example of IHC, New Delhi, Lodhi Road

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**Abstract:** Environment and ecological balance is the holistic approach to improve the way of life by maximizing the effectiveness of life in the built-up mass. Moreover, the addition of energy consciousness and its conservation creates a unique equation of synergy and enhances the intelligent building qualities in that built-up mass. This adjoins a new vocabulary to the city with a beautiful blend of scale and proportion in the building massing and stimulates public activities to make vibrant spaces within the Building complex to reach spatial environment to next level to nearly extraordinary.

**Index Term:** blending with nature, urban design elements, urban design principles

## I. INTRODUCTION

The fusion of urban design qualities within architecture of building enhances the dimensions of Architecture to the next level. India Habitat centre has been conceived in a holistic way to support the habitat. This is because, the concept and design is reflected in the spatial environment and with the blend of ecological balance harmoniously restored in improved way in the building complex at every level.

An ideal physical environment with a mixed range of facilities would maximize the effectiveness of the life in the built-up mass. The building incorporates several leading corporate entities and non-profit organizations like HUDCO, NHB, COA, CII, Tata Energy Research Institute (TERI), ILO etc. They shared a common concern for the 'Habitat'. Their combined participation in this exciting venture developed a unique equation of synergy in extraordinary spatial environment of this building complex.

## II. JUSTIFYING THE RANGE OF TANGIBLE FACILITIES

To fulfill the tangible aspirations of the users, the spaces are designed to suit ideally for Seminars, conferences, exhibitions areas, board and ball rooms, corporate presentations, interaction areas with press, workshops, Business centre, a club with 58 rooms and health spa, six restaurants and the Convention Centre that can simultaneously host 20 functions. It consists of 424 seat Auditorium and More than 10 theatres and Banquets.

To enhance in the interest of the public, the places are animated to stimulate public activity like exhibitions galleries, auditoriums, open air theaters etc. More than 20 concurrent sessions can be held at Habitat center at a time. That makes it acts like vibrant spaces. All along with these mixed usages, seven beautifully landscaped outdoor facilities are also included in the complex. The requirements of Cultural, Commercial and recreational are clubbed in the mixed use building to badge urban design qualities blend within the architecture of a building with built up area of about, 1 million sq. feet on 9 acres of land.

## III. JUSTIFYING THE RANGE OF INTANGIBLE FACILITIES

The Architecture of any building can be raised from ordinary to extraordinary, when the characteristics of spaces are fulfilling the tangible and intangible aspiration of user profile group along with amalgamation of natural resources and built environment. Users' participation within the direct vicinity makes self-sufficiency in their localization of life which adds value to the social life by enhancing community activities. This further encourages interaction in certain revenue generating spaces to contribute to economic activities. The outcomes of activism of people in the spaces bring about the feeling of overwhelming in better way to even match with the aspirations of international standards.

## IV. URBAN DESIGN CONSIDERATIONS

### 4.1. Urban structure

The India Habitat centre is situated at the junction of Lodi Road and Max Mullar Road, which is a close to Lyutens Delhi, and provides for an important landmark in the city as in Fig-i. It can be approached by public Transport, 4-wheelers and by JLN Stadium metro station, which is hardly 700m away from the entrance gate. The building strives to create and restore the existing urban fabric within a metro-Politian region. It is surrounded by important institutional buildings like Indian Islamic Cultural Centre, India International Centre, Alliance de Delhi etc. as in Fig-ii



Fig-i



Fig-ii

#### 4.2. Urban typology, density and sustainability

It is purely a blend of cultural, commercial, recreational and conventional facility without residential land use. User density varies on different days, as the building functions on various diverse roles like cultural hub, convention center, offices and recreational areas as restaurants, amphitheaters etc. Various commercial offices along with certain revenue generating spaces like auditoriums, seminar halls, conference halls, restaurants etc., function simultaneously. Site connectivity is indicated by the multitude of metro and road transport, which passes through the Lodi road, Max Muller road and Vardhaman road as shown in Fig-ii. Large transitional spaces provided within and around the building as a part of design solution to work towards the sustainability of the building.

#### 4.3. Character and meaning

##### 4.3.1. Building

The combined experience and expertise of users and the spaces in the complex enhance building quality. The design solution shows a unified relation between built and open spaces that creates an exciting environment for users to perform desired activities. The closely coordinated design, planning, and engineering teams of professionals satisfy all the norms, addressing to an urban context within the Architecture of the complex. The geometry allows for a vast array of configurations and arrangements, to enhance interrelationship between the external public spaces and the interior facilities.

##### 4.3.2. Atrium

The atrium is badge of honors of the India Habitat centre, as it is a unique covered public space, which is open and publically accessible to provide a complement to the open plaza.

##### 4.3.3. Order

In complex the variety of activities like commercial, cultural and recreational, are arranged in a manner to facilitate the smooth functioning of the building. This is maintaining the balance in the consistency and variety in the urban environment.

##### 4.3.4. Continuity and change

The entire complex transforms its functionality from a work culture in the offices to a cultural hub, where the people of different interest will be utilizing the spaces for different activities during the various hours of the day. This continuity and well designed change of various functional spaces enhances the sense of community along with the social interaction.

#### 4.4. Analysis of the project on the basis of urban design elements

##### 4.4.1. Transportation

There are two main entrances to the building, first from the Max Muller side and other from the Vardhaman side, which helps to distributing the traffic load to function the zoning of the building smoothly. There is defined segregation of vehicular and pedestrian movement. The vehicles entering from the Max Muller road will directly go to the basement parking, entrance to which is provided at the left corner of the building. The exits of the cars are towards the Lodi road side and also from the right corner of building facing towards Max Muller road.

##### 4.4.2. Building blocks

Five main building blocks of complex are connected with aerial walkways, but separated by interesting partially open and open to sky courtyards. These are designed in a way to interrelate to each other as well as foster the smooth flow of activities in these spaces, without any sort of hindrance as shown in Fig-iii and Fig-iv. The courtyards act as transition, cultural and interactive spaces. The L shape of the site has been used to the fullest, as the blocks are arranged in two axis. The office and cultural spaces are being connected by the green and paved transition public spaces.

The zoning of the entire site segregate the traffic inflow/movement as per there functionality. The two main entrances to the site, one from the Max Muller Road and second from Vardhaman road, lead to parking areas in the basement. The segregation of vehicular as well as pedestrian movement is defined by providing level difference at the entrances. All the blocks have been named as Core1-6, thus making visitors easy to locate themselves.



Fig-iii



Fig-iv

#### 4.4.3. Public spaces

The built form creates open and semi open spaces having different hierarchy which act as public spaces. There are three major public spaces which are created inside the complex and are used for different activities like amphitheatres, lawns for functions and parties and major transitional spaces that are connecting all the blocks at levels as shown in Fig-v and Fig-vi.



Fig-v



Fig-vi

#### 4.4.4. Streets

The streets surrounding the building seem to vanish at a particular point to creating an imaginary axis for the movement in a particular direction. The same impact has been created with the building blocks connecting at the upper floor level like a grand bridge. This develops a void or a frame at a lower level and generates a visual axis to define the movement pattern as shown in Fig-v and Fig-vi.

#### 4.4.5. Landscaping

Elements of Landscaping have been meticulously used to enhance the utility of the space. The theme of India Habitat Centre is to provide an undiluted walking experience of open nature. The complex has been generously provided with natural greenery in such a way that the natural embellishments blend with its surroundings, as shown in Fig-ix, Fig-x. The spectacular view of fountain just beyond the second entrance is relieving the activity areas and surroundings from the heat. All the open spaces are created as formal and informal activity zones in which landscaping plays instrumental role to enhance life in the public zones. There are many water bodies with lotus, sculptures etc., that adds beauty to the environment.

### 4.5. Analysis of the project on the basis of urban design principles

#### 4.5.1. Balance with tradition

There are many aspects in the designing, which we can compare with our traditional Architecture which enhance the aesthetic appeal of this complex. The entrance provided from the Max Muller road side is having high plinth. The void for entrance is created by a grand over-hanged building mass at high level that connects the two blocks. This gives the feeling of gateway which resembles the Great Buland Darwaja at Fatehpur Sikri, Agra as shown in Fig-vii.



Fig-vii



Fig-viii

The similar overhangs are provided in the entire complex, create dark and shaded areas at the podium. The same concept had been used at forts and palaces of Rajasthan. The vertical exposed brickwork outside and horizontal exposed brickwork inside the complex with exposed concrete bands creates monumental impact similar to our monuments and historical buildings as shown in Fig-viii. The application of colorful and vibrant handmade tiles between the exposed concrete bands, reminds us of the mosaic work done in Islamic buildings. The entire massing of the complex also creates a vertical axis resemble to our tradition Indian temples.

#### 4.5.2. Balance with nature

Since the site having an Institutional land use and is situated close to Lyuten's Delhi and Lodhi Garden, the entire area is having some of the best known trees are Amaltaas, Jhinjheri, Bistendu, Chamror etc.



Fig-ix



Fig-x

To maintain the balance with the surrounding nature, the entire complex of the India Habitat Centre has well defined green spaces as shown in Fig-ix, Fig-x. The low height shrubs and planters enhance the quality and definition of space, for example, the pathways and the sitting areas/vehicle movements etc., are segregated with the green planters.

The open public spaces blend beautifully with the built mass. The louvers on the top create the dramatic effect of shade and shadow and so protect the public space from harsh solar radiations in summers, thus creating a meaningful and sustainable environment. The finishing material used is exposed brick work, concrete and colorful handmade tile blends with nature and surrounding.

#### 4.5.3. Appropriate Technology

New Delhi falls under composite climatic zone, and in this region the courtyard planning is ideally suited which is religiously made the integral part of The India Habitat Centre complex as shown in Fig-xi. The green and water body plays a vital role in creating the comfort zone by changing the micro climate that suits to human body in public spaces. The huge and massive openings help in the air circulation throughout the complex. Though all the buildings of the complex have centralized Air Conditioning system, yet the main emphasis has been given on the public spaces; the louvered space frame protects the courtyard from the harsh solar radiations as shown in Fig-ix. The windows in the external facades are recessed and vertically placed, thus reduces, the penetration of solar rays inside the building as shown in Fig-i, Fig-vii and Fig-xiii. While the windows fenestration facing the central court have horizontally placed windows, thus providing a diffused light inside the building to reduce the AC load as shown in Fig-x.



Fig-xi



Fig-xii

#### 4.5.4. Conviviality and Efficiency

Indian Habitat center is a place designed in such a manner that every person can relate himself/herself with the in and out spaces as shown in Fig-xii and Fig-xiv. Since it caters many different segment of society, people don't find any problem in locating themselves inside the building. The movement and circulation pattern is clear and helps in the smooth function of the entire space. The today's community depends on the places like India Habitat Centre, that stimulate public activities to fulfill cultural, recreational and business demands, without creating hindrance in the other activity. This makes spaces as vibrant spaces which functions efficiently within the complex.



Fig-xiii



Fig-xiv

#### 4.5.5. Balanced Movement

The entire complex have a got a defined movement pattern. A person can reach his or her desired block due to a well designed defined approach. Even a person visiting the complex for the first time can reach his destination easily. The building has mass transit corridors around major centers. The diverse unification of Social, economic, recreational and cultural activities keep movement corridors more intense and busy.

#### 4.5.6. Institutional Integrity

The Habitat Centre is located in an Institutional area, which is surrounded by many institutes, schools and other related buildings. The site is at a strategic location, located at the junction of two very important roads.

The entire complex blends with the surrounding with important institutes buildings. Inside the complex, the offices and non-profit organizations shared common concern for the 'Habitat'. These combine together in this exciting venture with so many different spaces, meant for different functions altogether. Spaces have been evolved in a unique equation of synergy within the complex to bring about cohesiveness of man with functions, tradition, nature, technology etc., as shown in Fig-xiv.

#### 4.5.7. Regional Integration

The Habitat center houses a number of offices providing employment to many individuals from within and outside the city. It is a platform for all the artists for showcasing their creativity. It is a socio-cultural hub for activities relate to the up-gradation of the society in part and as a whole. It provides a space for entertainment, research, education, commercial etc.

### V. CONCLUSION

In the purview of the above study, this complex has the elements which are identified and analysed either separately or in relation to each other in terms of the plot, the street, the constructed space and the open space, which importantly develop a close relationship to people. A multitude of tasks and possibilities simultaneously implemented through the process to take project to an absolutely wonderful complex, because these generate a sequence of outcomes resulting the most miraculous possibility of lively spaces and life in the complex. This takes it to touch upon great heights in contemporary Architecture exemplifies ideal of beauty and practicality.

## VI. REFERENCES

- [1] <https://www.indiahabitat.org/page?view=aboutihc>
- [2] <https://www.indiahabitat.org/page?view=facilities>
- [3] <https://www.indiahabitat.org/programmes>
- [4] <https://www.indiahabitat.org/>

