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# LATITUDES INTERNATIONAL DESIGN CHALLENGE 2015-16



Chennai 13° 5' 0" N  
Design Challenge  
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Retro-Community  
at Adyar

Submitted by:

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Thematic Area:

Adaptation Design

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# Retro-Community at Adyar

## Introduction

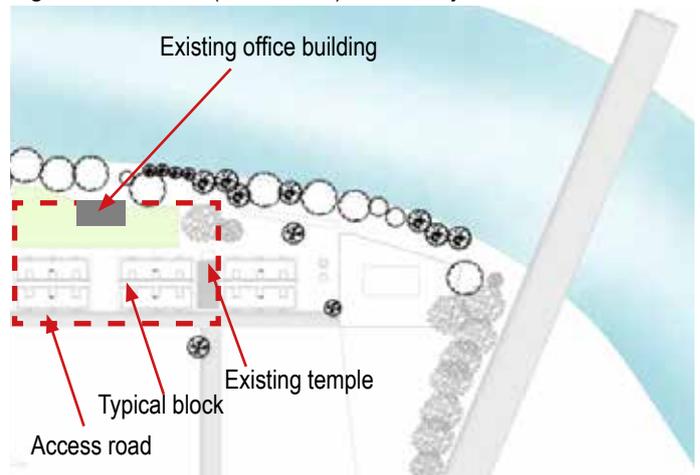
Last few decades, many Indian cities have seen a migration by economically displaced communities in search of jobs and livelihood from villages. They found themselves haphazardly occupying temporary structures at the water edges like rivers, lakes and transport corridors etc. These lacked proper function in terms of hygiene, sanitation, open spaces and services. Spaces were built adhoc without proper light and ventilation by the new migrants. These ended up into slums over many years. Traditional passive design features of their vernacular settlements were now a lost wisdom along with community open spaces. Traditional structures were built with green features of passive climate responsiveness and energy efficiency. Their contribution to climate change was very minimal. However in the recent past, Governments have many times intervened by removing slums and provided housing solutions that were permanent, but very insensitive and insecure to their social and economic wellbeing. These have been generally unsuccessful in terms of spatial quality of site and built resource use, energy efficiency, identity, security and community spaces etc. There is an immediate need to provide quality housing using the existing stock in terms of applied wisdom of the past. However, demolishing housing to provide better solutions would aggravate climate change. Retrofitting them with green features can adapt them to climate change better by avoiding new construction and making them more energy efficient. These can also drastically improve their living conditions.

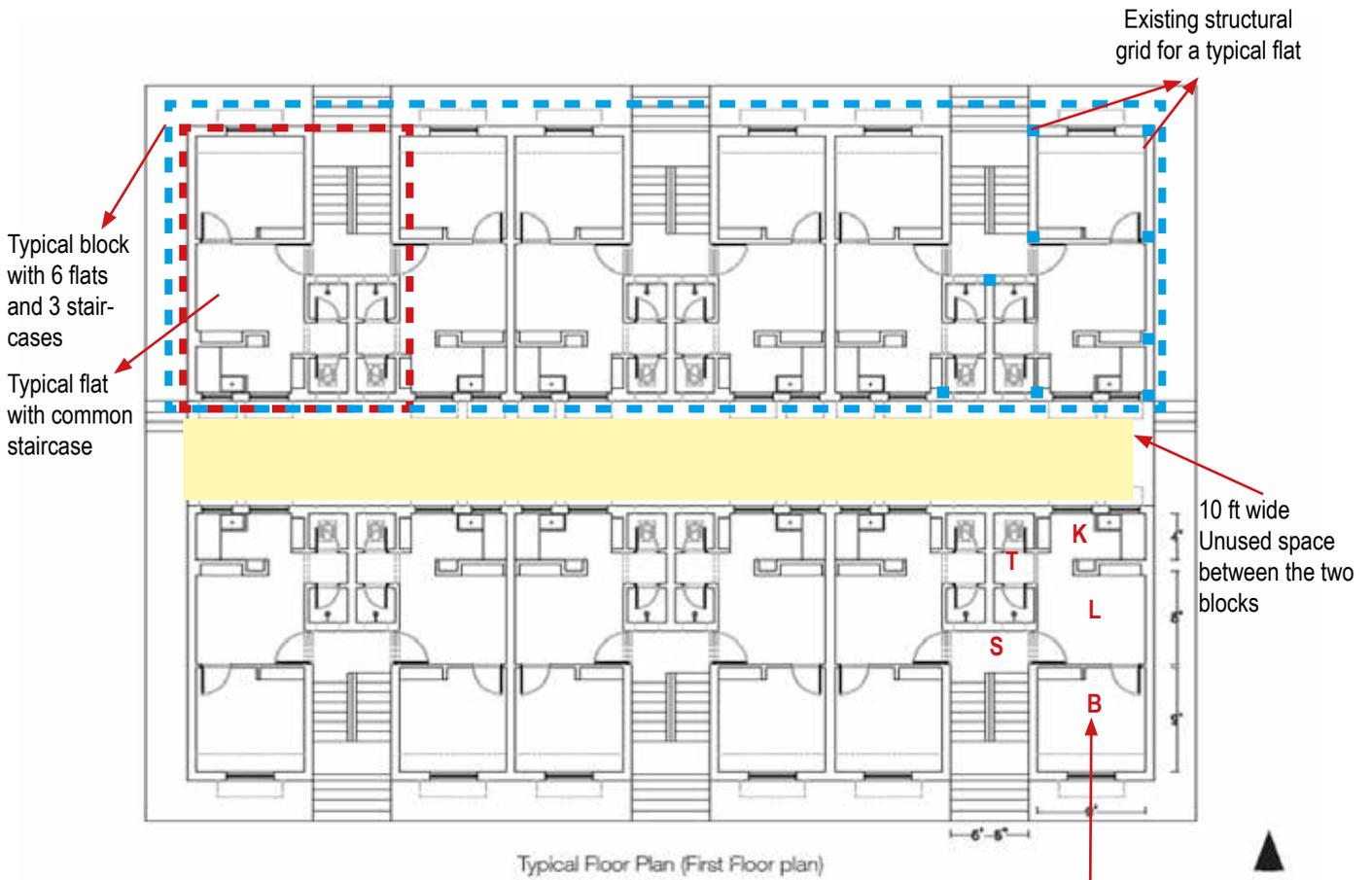
## Context

The site is located in Kotturpuram, a locality in Chennai. The site is surrounded by the Adyar river on its north; Kotturpuram bridge on its east, Tamil Nadu housing board (TNHB) flats on its south. Within the site, there are four residential blocks (G+3), consisting of 6 flats (per block). All unused, built within last 1 year.



Figure 1/2 : The site (demarcated) and the adjacent features.





**Figure 3:** The typical floor plan of a typical residential block G+3 with dimensions

## Challenge

The current design of a typical block seems to have not addressed the issues of day lighting, cross ventilation, identity, resource use of common facilities like staircases, social spaces within a flat, community space, etc. currently, there is no access to the terrace and it is wasted. The challenge is to retro fit the existing structure with energy efficient design solutions, so that the people there experience better but affordable living standards.

**The respective floor areas of an existing dwelling unit(in feet):**

- Bedroom (B) - 9' x 9'
- Living/Dining (L) - 8'x9'
- Kitchen (K) -4.5'x9'
- Staircase (S) -13'x6';
- Toilet, Bath (T) -9'x3'

**Figure 4:** photos showing the existing office building(centre), the unused space (left) between the residential blocks and dead spaces(right) in the nearby TNHB project.



## Design guidelines

- The height of the building shall not exceed the existing G+3 Structure (3m clear floor to roof height for each flat)
- The foot print/overall form/elevations shall be modified within the site limits.
- Existing structural grid may be modified.
- Activity spaces for the livelihood of the people may be explored within the premises.
- Passive building techniques are highly appreciated.

## Resources

- Housing designs by Indian modernist architect Charles correa: <http://www.slideshare.net/prannaydhingra9/charles-correa-34348287>
- Housing at JeevanBhimaNagar, Bengaluru, India <http://thewire.in/2015/06/28/so-whats-it-really-like-to-live-in-a-home-that-charles-correa-built-4975/>
- Aranya community housing by Architect BV Doshi : <http://web.mit.edu/incrementalhousing/articlesPhotographs/pdfs/aranya-1-Summary0025.pdf>
- Asian games village by Architect RajRewal

## Tips for submission

1. Concept
2. Site Proposal Layout 1:200
3. Basic drawings 1:100 and typical unit in 1:50
4. Details in appropriate scale



**Figure 5:** photos showing poor daylight & ventilation in bedroom, living, kitchen spaces within a typical flat.

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