

REVIEW OF DDA'S TRANSIT ORIENTED DEVELOPMENT GUIDELINES FOR DELHI

Abstract: Metro rail is being introduced in a big way in all of India's Tier-I and some Tier-II cities too. The introduction of TOD guidelines is being clearly being watched and will be emulated all over the country. Accessibility is fine but in the process the increased FAR, ground coverage and height would lead to densification and judicious use of infrastructure is argued by the proponents of the scheme. This article analyses the public ground per capita versus (the total area under plots to be developed) buildable plot ratio around metro stations in Delhi bringing out the resultant Quality of life.

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The Delhi Development Authority has formulated Transit Oriented Development guidelines for metro stations and track areas in the Master Plan of Delhi 2021. An FAR of 450-500 is offered in the 800 metre radius of metro station and 500 metre on either side along metro track. It is not difficult to imagine its effect on the city. And height restrictions are removed subject to approval by Airports Authority of India (AAI).

Any city has public spaces and private spaces, that is precisely what we are going to analyse in the case of Delhi. I would refer to the very interesting article on this subject by Shirish Patel, Alpa Sheth & Neha Panchal (2017), their area of analysis being Mumbai & Dharavi.

There are three basic definitions we must be clear about to understand the analysis:

1. Public Ground area (PGA): Residents of a city need Public spaces for

Health and recreation, which they share with others. These include:

- i. Built up spaces for hospitals, schools, Police stations, Fire brigade, electric sub-station & other common amenities.
- ii. Recreational area (parks and playgrounds)
- iii. Footpaths, roads & public parking.

UDPFI guidelines state this should be minimum 23sq.m. per capita and National Building code for low income housing states it should be minimum 16sq.m. per capita.

2. Buildable Plot ratio (BPR) : The ratio of total area under plots Commercial, Residential, Industrial or Mixed use excluding common amenities.
3. Built-up Area (BUA) : The total area available for human habitation Commercial & Residential in all plots and all floors. It is expressed per capita, i.e. total floor area/population.

Today we are talking about densifying Delhi to use infrastructure more efficiently, but the question is, is there room for further densification. Given in the table below is the Green space available in the 500 metre catchment of a few metro stations of Delhi metro.

Green areas available:

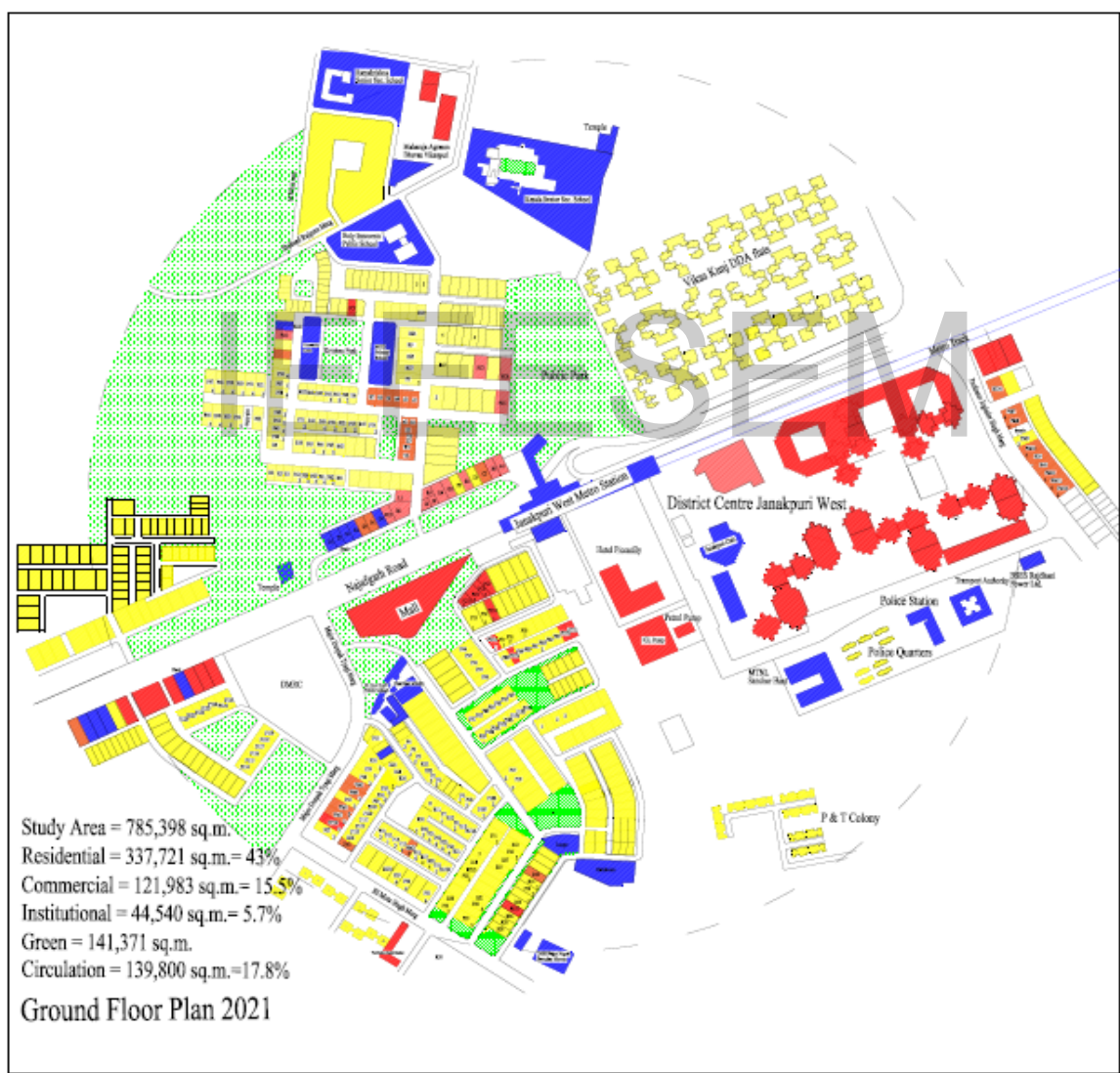
	Metro Station	Green area in sq.metres
1.	Janakpuri West	141,371
2.	Subhash Nagar	103,330
3.	Green Park	36,244
4.	Hauz Khas	165,695

Source: Primary Survey 2020

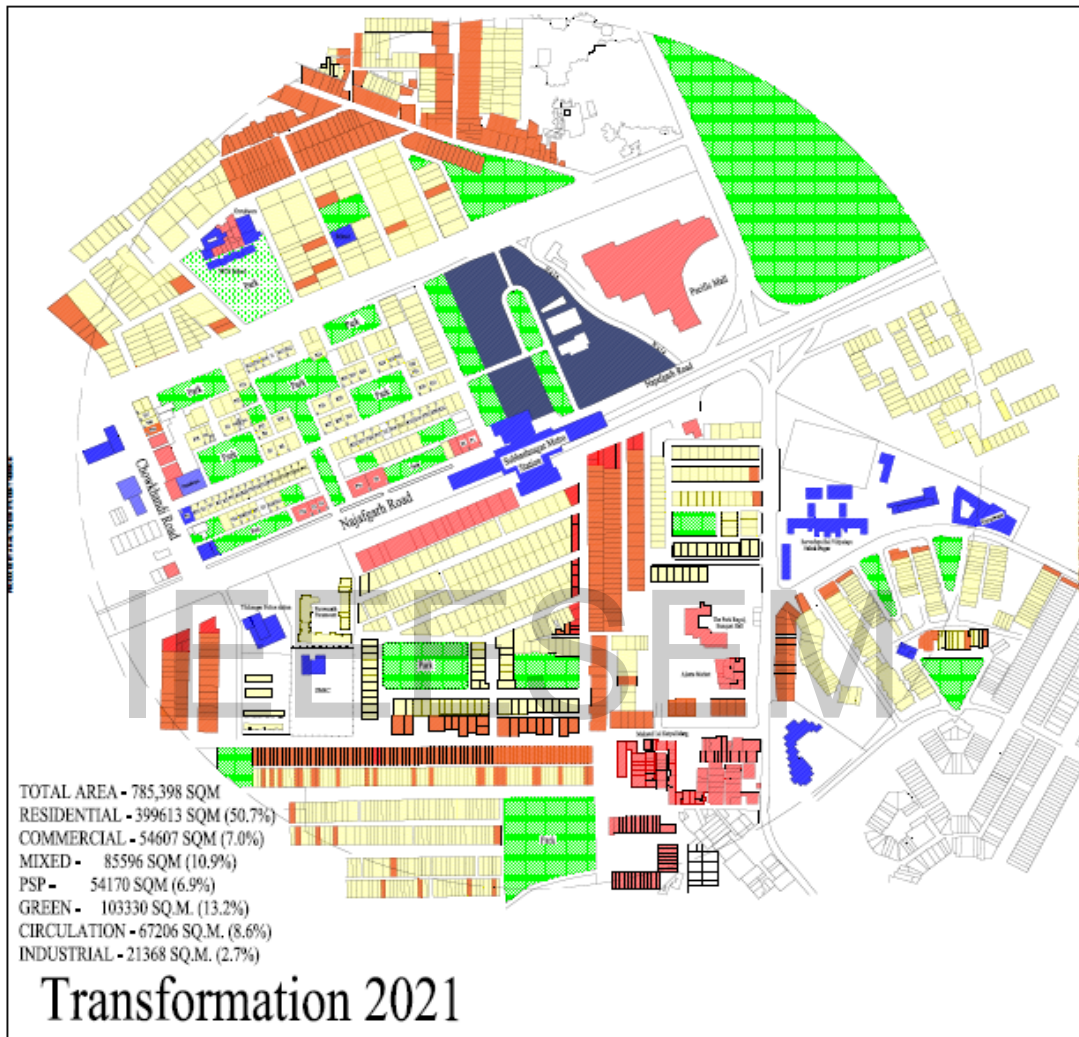
WHO (World Health Organisation) recommends a minimum of 9 sq.metre of urban green space per person, India has followed a standard of 8 sq. metres per person.

Given below are the Land use plans of these above mentioned metro stations showing distribution of Land uses:

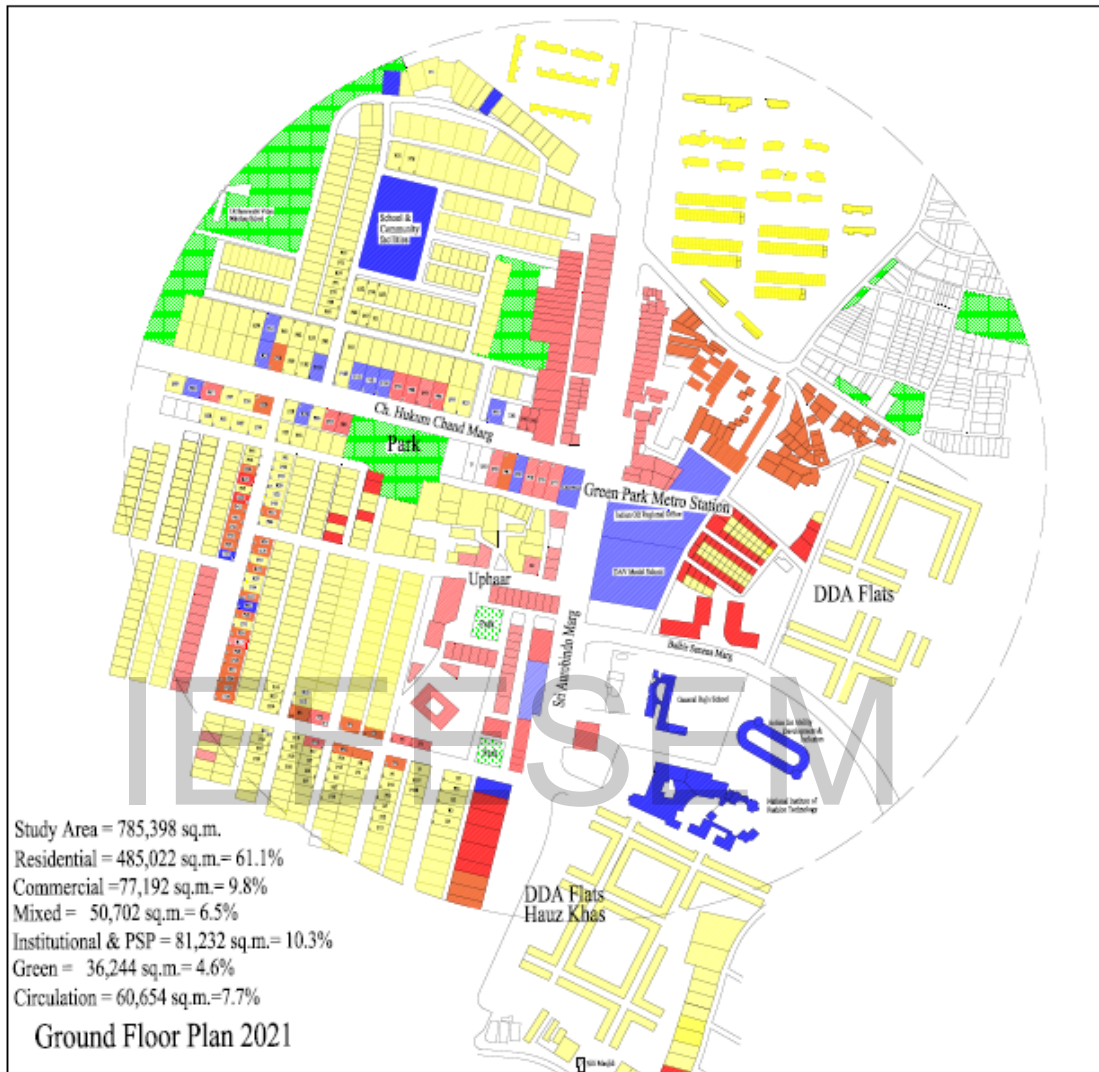
1. Janakpuri West metro station (Blue line) (North is vertically upwards)



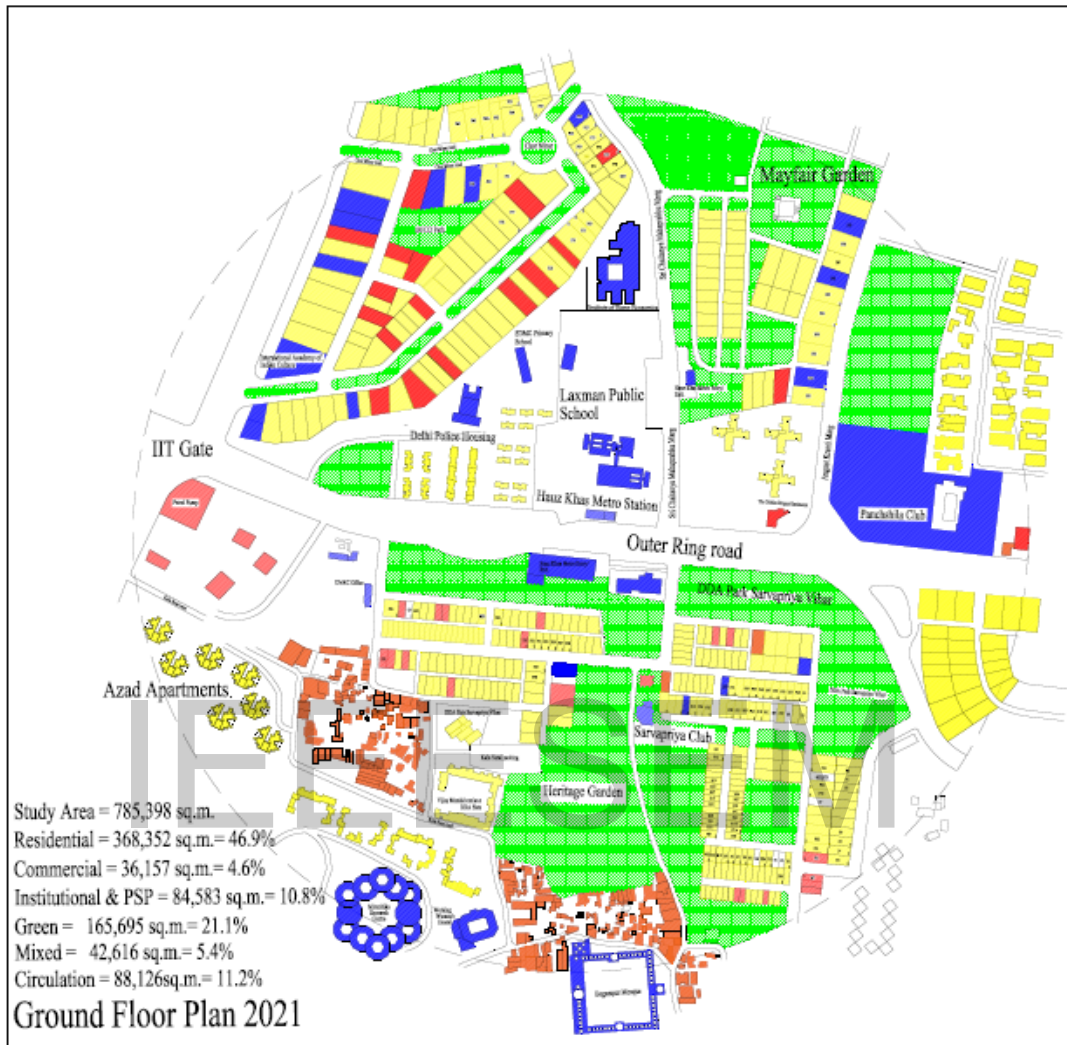
2.Subhash Nagar metro station (Blue line) (North is vertically upwards)



3. Green Park metro station (Yellow line) (North is vertically upwards)



4. Hauz Khas metro station (Yellow line)(North is vertically upwards)



Transit Oriented Development an accepted and acclaimed practice in the West is used to leverage footfalls for public transit, as the population or population density in the western world U.S., U.K. or Australia is sparse compared to what we see in the Indian context. The Delhi metro from ridership statistics of the last ten years is clearly being fully utilised. So these ridership supporting measures of relaxed FAR, Ground coverage and height restrictions are not that necessary in the case of Delhi metro.

Comparing the Public Ground area (PGA) and Buildable plot ratio (BPR) for these station areas based on Primary survey in 2020.

	Metro Station	PGA sq.m./capita	BPR %age
1.	Janakpuri West	17.13	42.3
2.	Subhash Nagar	13.55	41.1
3.	Green Park	11.46	54
4.	Hauz Khas	23.36	56.9

The above figures would be much lower for Seelampur and Welcome metro station areas on the Red line. It is clear from above table that the PGA (Public Ground value) standard of 16sq.m. or 23sq.m. mentioned in the beginning of this article is not achieved in most areas and TOD policies are going to further put pressure on public areas and Quality of life. Only the 500 metre radius catchment of Hauz Khas metro station has healthy PGA figures.

Conclusion: There has to be a through review of the impact of Transit Oriented Development guidelines and the impact of bye-laws have to be carefully reviewed from case to case.

References:

1. Patel, Sheth & Panchal (2017), Urban layouts, Densities and the Quality of Urban life.
2. Master Plan of Delhi 2021.