

3. Site Development Guidelines

3.1 Built Form & Fabric

Auroville belongs to nobody. There is no concept of land ownership in Auroville and hence, there will be no site boundaries. There are some controls to be followed by the site developers in order to adhere to the overall RZ proposal like, building height, ground coverage, FAR but there is no restriction on the setbacks because ultimately, there should not be any boundaries between any two sites and there must be interconnections between adjoining buildings making the overall built fabric, one.

The site boundaries shown in the proposal plans are only for study purposes and need to be referenced while following the development guidelines, especially relevant to that particular site.

But, the maintenance of the entire site lies with the residents of it. The challenge here lies in the fact that the areas between two buildings and lying in different sites must be designed in a manner that it blends seamlessly in spite of the fact that it may be maintained by different sets of people.

3.1.1 Built Form/ Architecture

Mainly the built form will be governed by the table below, which will impose restrictions of maximum allowable ground coverage, height and FAR on any new construction.

Whenever a site is opened for development by TDC, following information will be provided based on which, the developer will have to refer to the guidelines mentioned further in this document:

- Site Area
- Site Location (sector and sub sector)
- Population density category (refer the following table for building regulations based on this)
 - . Expected population can be derived by multiplying the site area with the density given in this category
- Existing Scenario
 - . Existing infrastructure facilities (to be connected and augmented, if needed for future use)
 - . Neighboring communities brief (built form, population, etc.)

Figure 9: Population density wise - Built form regulations

to achieve the target population	Densities	to achieve the built form		
		Ground coverage	Max FAR	Max height
	Low 1 (L1) 80 pph	Max @ 40%	0.8	G+1
	Low 2 (L2) 110 pph	Max @ 40%	1.2	G+2
	Medium 1 (M1) 160 pph	Max @ 40%	1.6	G+3
	Medium 2 (M2) 250 pph	Max @ 50%	2.5	G+4
	High (H) 300 pph	Max @ 60%	3.5	G+5
	LOF 400 pph	Max @ 60%	5.5	G+8
	Crown 120 pph	Max @ 40%	1.2	G+2

Key Design Guidelines:

- The architecture of any new development must respect the surroundings and should preferably focus upon sustainable vernacular construction techniques.
- The individual buildings can be creatively different but the overall built form must evolve by harmoniously mixing the varied architectural forms.
- Any sort of site boundary demarcation, whether in the form of walls, fencing or even shrub lining will not be permitted if it obstructs the view of the building. Instead all the buildings must merge seamlessly with each other such that on ground, it should be impossible to tell which area belongs to whom.
- All the buildings located towards the GIT corridors must be designed with utmost priority given to mixed use and social infrastructure development on the ground floor with maximum area possible.
- On ground, there should be a clear juxtaposition of two continuing networks, one is the built mass and the other is the GIT corridor. The purpose of the GIT corridor is to provide a continuous network, which runs through all the zones in the Auroville city area and serves all possible spaces. These corridors should look like cutting through the built mass at places where interconnections across the corridors occur on upper floors.
- Apart from any other use than residential, ground floor can also be left to be part of the frontage and pedestrian zone (refer GIT corridors cross-sections in the mobility guidelines) e.g. area can be used for landscaping, a decorative pond with seating area along, open gym, cafeteria, etc. The actual residential building purpose can start after a setback or even from higher floors.
- Ground floor of all the buildings must be very transparent and attractive towards the pedestrians. This will also ensure safety of both the residents and the pedestrians, through mutual surveillance. Thus, the spaces towards the corridors have to be cautiously allocated.
- Window or transparency to wall or opaque ratio of facades of the buildings especially towards GIT corridors should be minimum 60% in order to make the facades more inclusive, inviting and attractive.
- Any built construction should be considered as a hindrance to

the movement of people and even other living species and thus, it should be made sure that corridors are proposed on the ground floors for undisturbed movements as is very clear that there are not supposed to be any site boundaries and all the buildings should merge with each other instead of standing separately on different plots. There should be more voids than solids on the ground floor.

- Possibilities of intermediate public spaces connecting with each other should be explored and spread across both the sectors.
- Any pedestrian or cyclist should be easily able to commute from one place to another within the sector through dedicated corridors and even within sub sectors through the seamless connection between different buildings.
- The plinth of the buildings and their relationship to the semi-covered and public areas in the front facing the community spaces and pedestrian pathways, play an important role in determining fluidity of movements and functions. The transition from public to private spaces must be seamless.
- All buildings must be designed with barrier free elements, to accommodate mobility for the elderly and specially abled people.
- The building envelope should be designed with adequate window openings to bring in fresh air into the building, thereby ensuring good indoor air quality. Buildings should have sufficient openings in at least two different directions, so as to allow good cross-ventilation. (*Indian Green Building Council, "IGBC Green Homes," accessed October 30, 2014, <https://igbc.in/igbc/redirectHtml.htm?redVal=showGreenHomesnoisign>.*)
- Auroville can be classified as Tropical (winter) monsoon climate zone (AM) as per Koppen climate classification. It is highly recommended to have adequate measures which ensure cross ventilation and sufficient overhangs for shade from harsh sun.
- Daylight should be considered as an important element at the design stage. At the same time, care should be taken to prevent glare.
- There must be enough consideration given while designing so that the ugly looking services do not face the GIT corridors and wherever they are, must be screened innovatively. Also, these sides of the buildings at rear or sides, must also be put to safety and surveillance. Such areas also include the spaces where clothes are hung for drying. Aesthetical appearance of the built form on all sides, will have to be very cautiously thought upon by the developers.

Disclaimer: Guidelines for any new development on the crown must adhere to specific guidelines for the crown.

- The buildings have to be as permeable as possible by giving at least 2 meters clear passageway through the buildings' ground floors, as covered walkways for the easy and seamless movement of pedestrians circulating within the sub sectors.

3.1.2 Interconnection with other built structure

There are no site boundaries in actuality on ground and all the boundaries mentioned in the proposals are only hypothetical and only for study purposes.

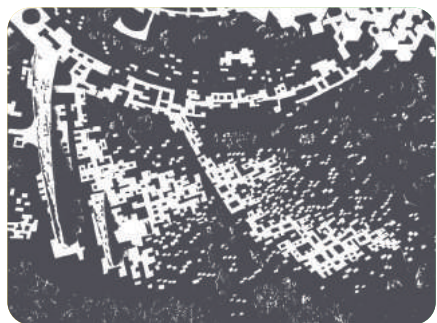
The buildings must adhere to the concept of interconnectedness as suggested in the Galaxy concept with the help of porches, arcades, courtyards, bridges, covered walkways, etc. and provide a gradation from built to open and green spaces, private to public spaces, and so on.

Interconnections only in the form of circulation spaces connecting two neighboring buildings will be considered free from permissible FAR limits.

They must be designed such that they merge seamlessly with the already existing built fabric in the surroundings as well as provide possibilities for connections with the newer constructions in future.

This will formulate a harmonious continuity and generate a respectful architectural language to the entire sector and ultimately to the whole zone.

When all the buildings will be connected to each other some way or the other, there won't be any fixed route for going from any one place to another and thus, the walkability will be enhanced as nobody will get bored.



The buildings facing the GIT corridors must be designed such that they seem to be more transparent, inviting and people friendly by having more openings, spill-outs, balconies, etc. facing the frontage zone.

It must be taken care that the support structures for the bridges or any other forms of interconnections, do not hamper the designed and required minimum widths for pedestrian, cycle and vehicle routes and also, the minimum heights for clear passage.

It must also be taken care that these connections between buildings do not interfere with the privacy, natural daylight, designed views and vistas and ventilation of the buildings that are already existing.

3.1.3 Mixed Land Use

The concept of Auroville states that all the basic amenities should be accessible within walkable distances for the residents and thus, the proposal encourages Mixed Land Use at specific sites, which are along the GIT corridors within the sectors or along the radials and the crown. Apart from the daily needs, these land uses other than residential, will fulfill the socio-cultural needs of the residents and enhance the social aspect of the overall sector and the zone.

With more common public facilities, more people will be outside their homes, sitting and eating at some cafe, playing with kids, buying essentials, etc. and ultimately make the spaces lively and safer.

Permissible Mixed Land Uses and other common facilities are:

- Restaurants or Eateries,
- Coffee shop, Bakeries,
- Collective Community Kitchen & Dining,
- Farmer's market,
- Shops and Services,
- Entertainment & Recreation spaces,
- Exhibition spaces,
- Small offices or work studios,
- Book stores & Reading spaces,
- Theatres & Art galleries
- Healthcare or wellness facilities,
- Pharmacy stores,
- Common Laundry,
- Administrative, etc.

In order to promote life at most times of the day/night, it is recommended that different kinds of buildings are located on the crown. This should include essential services such as financial service, health center, post office, etc. that operate during the day as also convenience stores, pharmacy, etc. that could be open till later. Other amenities that would foster life further into the evening/night would be restaurants, cafes, art galleries, exhibition spaces, multi-media centers, gymnasium, library, etc. It should also include small offices and residences. (*Urban Design Guidelines for the Crown in RZ, TDC, Technical Team, 2015*)

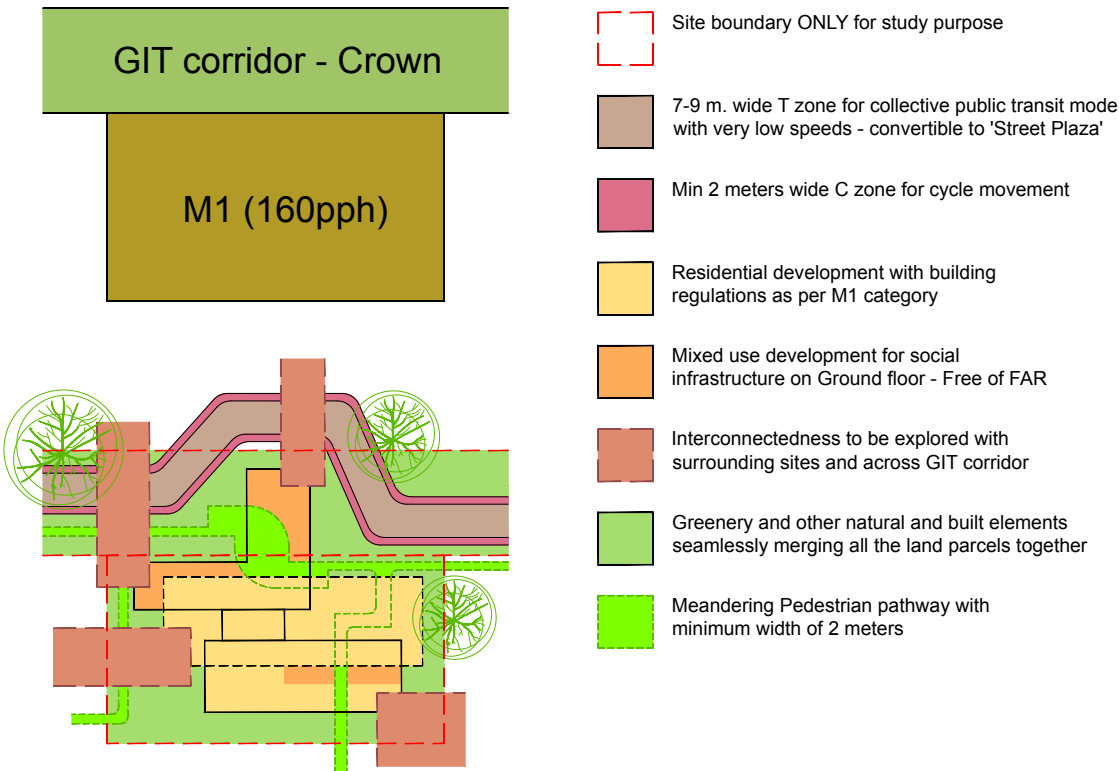
The aim is to evenly distribute all the basic amenities for each sector. The final decision of choosing the facility and its location lies with TDC.

All the sites with mixed use developments on the ground floor, will enjoy extra FAR and height permissions in relation to the built-up area for uses other than residential, as mentioned above. The ground coverage permissions, although will remain the same.

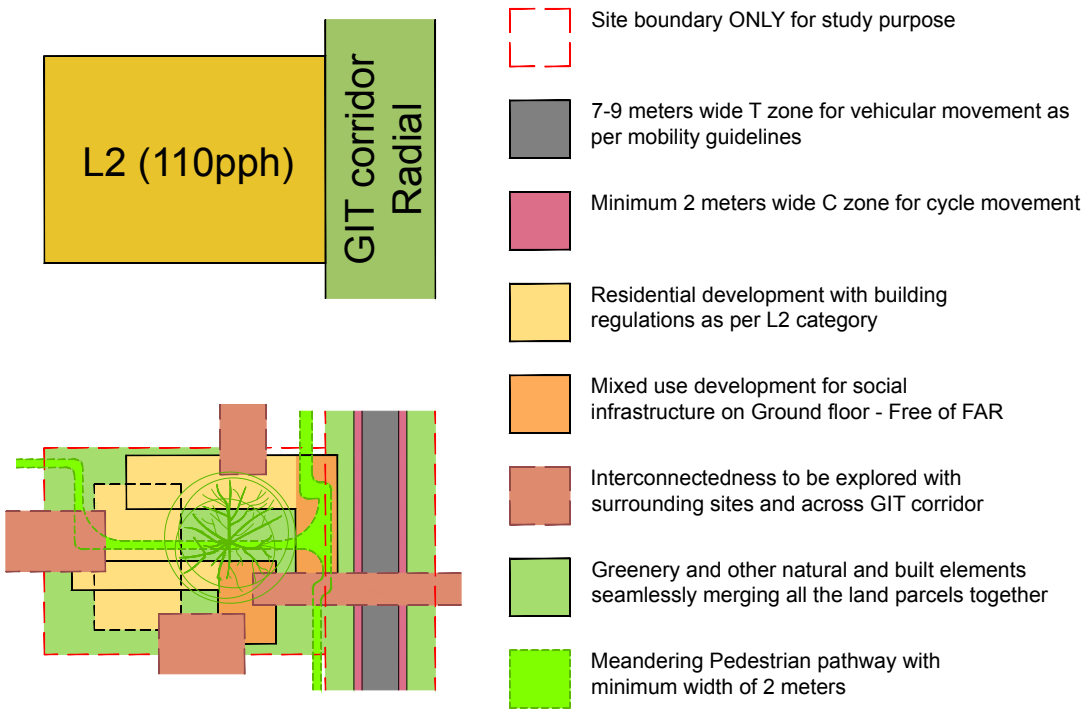
The final decision on relaxing the building regulations lies with TDC and the concerned authorities will analyse each such proposal on a case to case basis during the peer review and then only give approval.

As a summary, all the sites in the sectors 1 & 2 of the RZ are classified in the following categories and according to the design and development of GIT corridors and the related site guidelines as per the population density category of the site, the development on each one of them will be regulated as shown in the examples below:

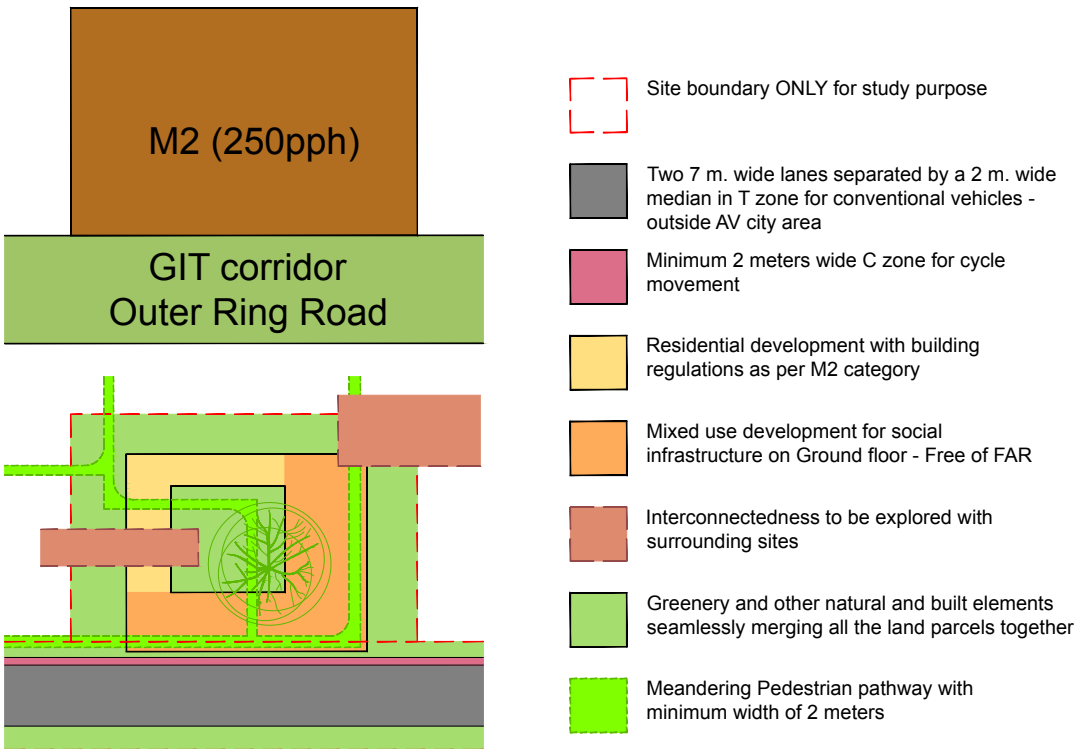
Sites along the Crown (Primary GIT corridor)



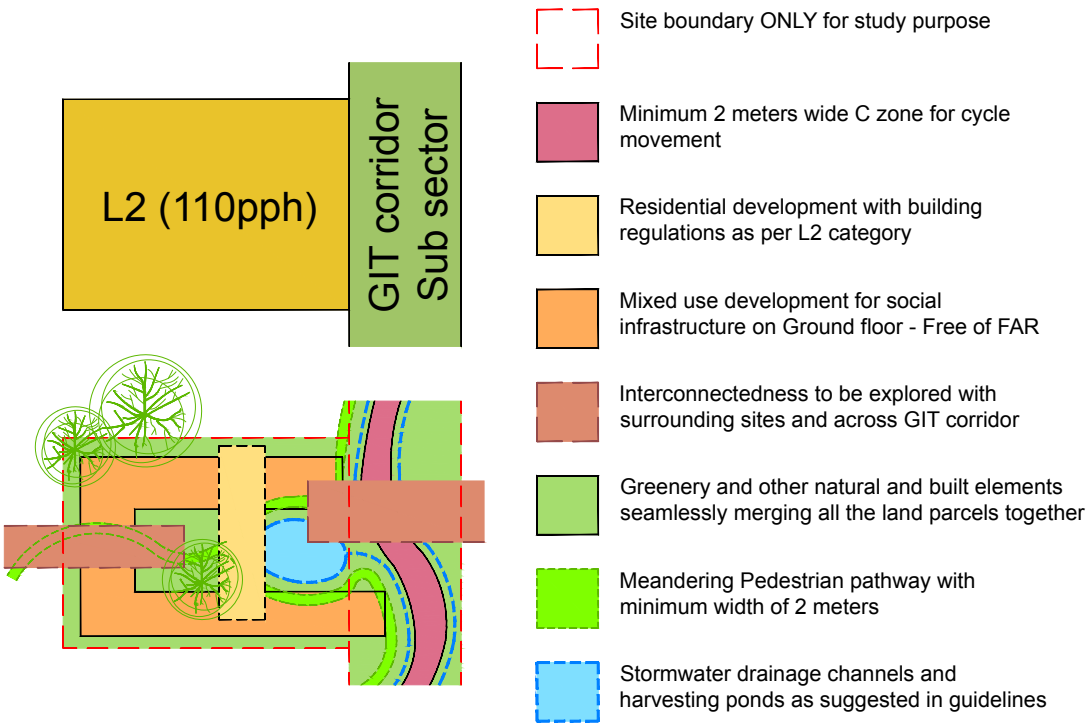
Sites along the Radials (Secondary GIT corridor)



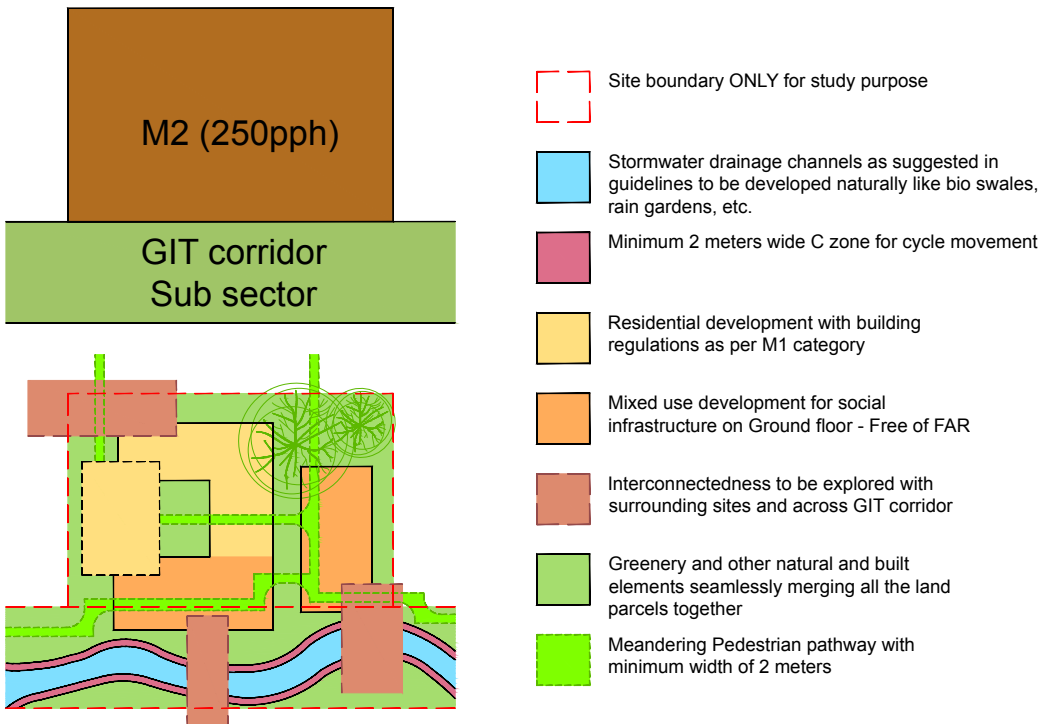
Sites along the Outer Ring Road (Tertiary GIT corridor)



Sites along GIT corridor sub sector level



Sites along GIT corridor sub sector level



3.2 Environmental

3.2.1 Arboriculture Guidelines

Proposed guidelines for any construction with due consideration to the trees available on site as per the survey by Arboriculture specialist, are mentioned in this section.

Whenever a pocket is opened by TDC for any new developments, a detailed survey of the concerned site and even the surroundings (whichever may get affected due to the development proposed) to be conducted by an arboriculturist and recommendations to be integrated in the planning of the proposed development.

Recommendations are to be received for pre-design phase, design and construction phase.

Some attributes that will be mentioned in the survey can be:

- Species, life stage, height, canopy spread in different directions, stem diameter data is collected.
- Structural and physiological condition (health) is assessed.
- An estimate of each tree's remaining contribution is made.
- Comments and work recommendations are given if necessary.
- Finally, a retention category is provided based on the species, its age, condition and remaining contribution and by considering amenity, cultural, environmental and/or landscape values.

The result is a plan with the following features to be integrated in the proposal and as shown in the exemplary map below:

- tree stems, identification numbers and retention categories
- a root protection area (calculated based on the stem diameter)
- a representation of the canopy in a color representing the retention category assigned

The site developers will need to propose any new development based on the recommendations given by the arboriculturist and the approval for the project will be given after undergoing peer review by TDC.

There might be cases where the available land after conserving the recommended trees, is not enough to plan for the target population with the permissible building regulations on that particular site. TDC will consider such sites on a case to case basis during the peer review. Relaxation might be given in case of building regulations or target population density to be achieved or some other solution might be suggested by the experts.

This survey output by arboriculture expert is overlaid on the concerned site maps and the following information can be extracted

Project developer must respect the recommendations given by the arboriculture expert and design the buildings only on the remaining area available after considering the trees marked to be conserved and protected.

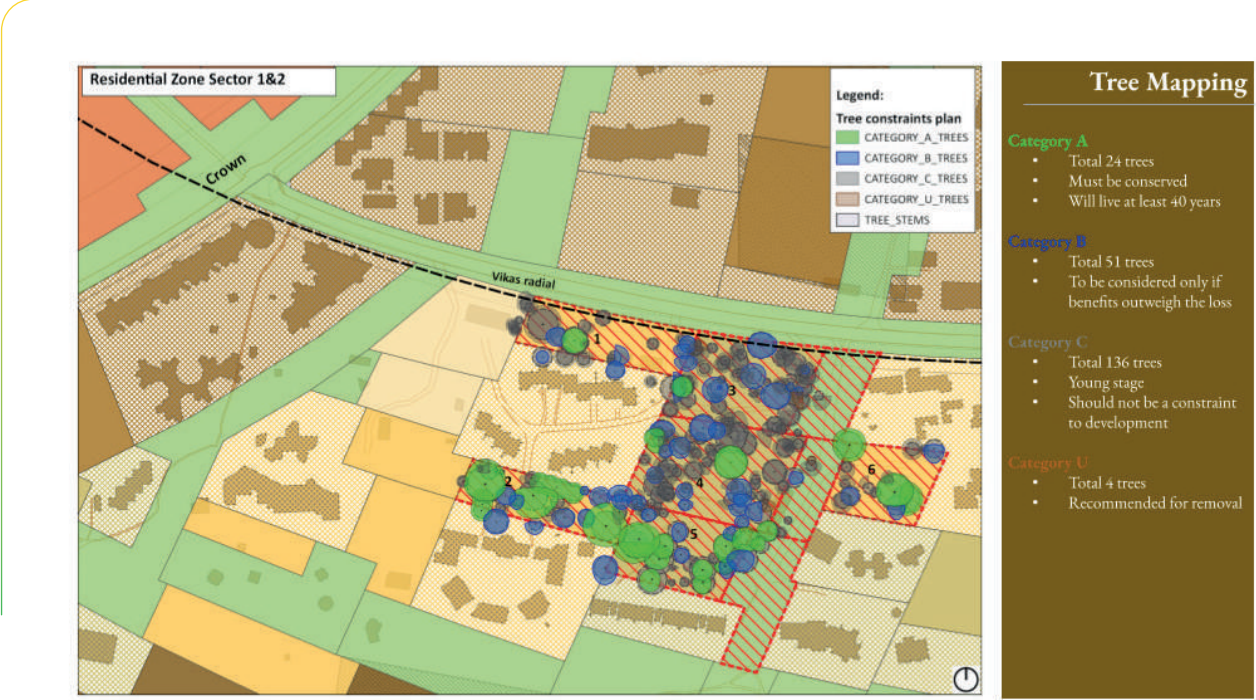
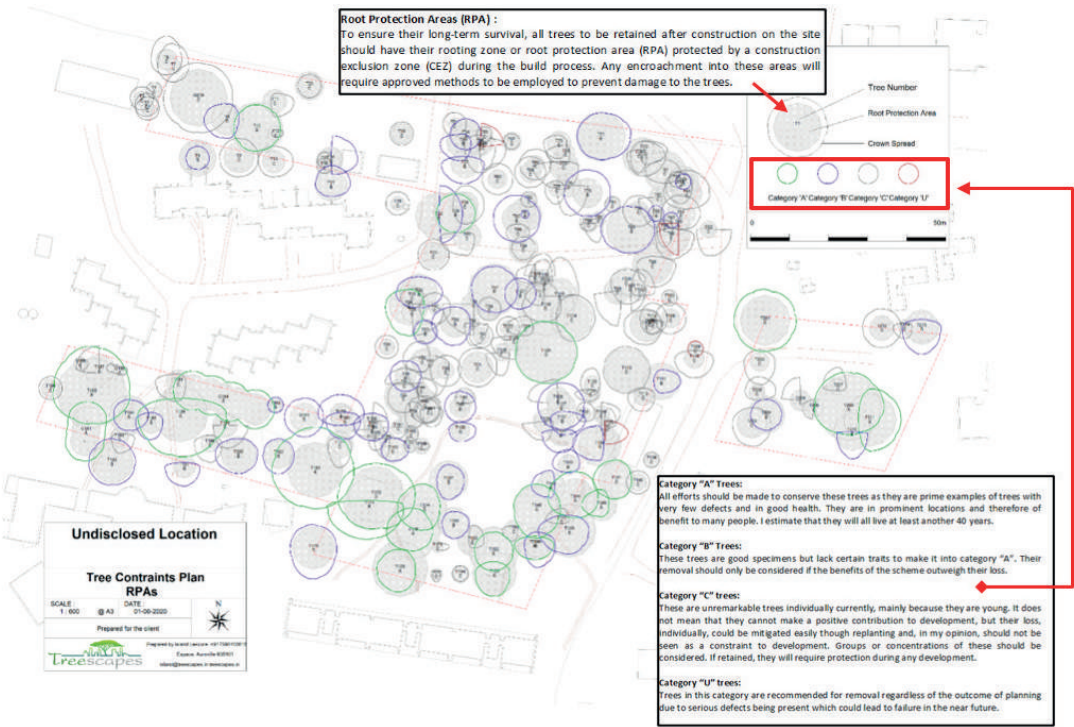


Figure 10: A 'Tree Constraints Plan' showing how different surveyed trees may impact development



3.2.2 Green Open Spaces

The pockets abutting the GIT corridors will themselves be responsible for the design, planning, execution, regular functioning and maintenance of any development within these corridors.

As explained further in this document, the land use just adjacent to the corridors will be mixed use. The residents of these pockets will benefit by enjoying priorities in occupying these built areas for their offices, exhibitions, pop up shows, meetings, conferences, etc. and also by renting out these spaces for similar purposes and earning, which will in turn be used for the upkeep of the corridors.

WHO recommends 9 sq. mt. of undeveloped (unpaved) open space for every inhabitant within 15 minutes walking distance. Many international cities have achieved green open spaces much beyond this recommendation.

Auroville also suggests maximum possible green space per inhabitant and to achieve this, the GIT corridor should be designed very organically with least pavements or any other form of hardscape. And these corridors are already planned in such a way that for any inhabitant of the 2 sectors, green open spaces are within 5-10 minutes walking distance.

Apart from the greenery in the GIT corridor adjacent to the sites on ground levels, green spaces should be designed at all upper levels too, wherever possible. Preference should be given to those species, which provide shade to the pedestrians and cyclists using the corridors and improve the air quality. All the species must be chosen after due consideration of the water they will require and the prevailing water condition at the time of design proposal.

In order to give the benefits of green open spaces to even those living on the upper floors of buildings, the area used for proposing green open public spaces on upper floors, will not be counted in the total built up area and this area will be free of permissible FAR. But the actual scenario and permissions will be reviewed during the peer review on case to case basis.

Adequate provisions need to be made for composting of the dry leaves from the landscaping and the compost can further be used in the greenery itself.

The responsibility of maintaining the part of GIT corridors adjacent to the sites lies with the residents and should be considered in the project financials by the project developers.

3.2.3 Placemaking

Public open space is fundamentally any publicly accessible open space across the city, that supports largely democratic and equitable engagements of the citizens, facilitates the fostering of cultural and social exchange among them and provides a place of solace and comfort in their lives. Public spaces consisting of the commons beyond one's home makes them feel comfortable outside an individual's private territory while allowing them to feel connected to a larger social system. And placemaking is an approach towards creating such spaces.

In the context of Auroville the fundamental idea of placemaking remains the same with an added layer of community commons at different scales that includes the collective responsibility of Aurovillians to care and nurture the commons around them. The custodianship of such commons may vary based on the degrees of publicness. Following are few ideas for such public open spaces for the sites within and along GIT corridors proposed in the two sectors.

Adventure Playgrounds

These are a form of open space that utilises excess elements from the built surroundings such as, construction debris and scrap materials essentially providing tools and resources for an imaginative and DIY approach to playgrounds with a pinch of controlled risk.

Play is an integral component of human growth for children of growing age, providing them with experiences of imaginative thinking, social interaction and collaboration and tactile learning through creating things on their own can result in a boost towards children's health while promoting character traits such as creativity, problem-solving, and resilience.

In an adventure playground the children have an opportunity to play with relatively dangerous tools, while taking dangerous risks and overcoming them in turn can help imbibe sense of self confidence and active decision making skills in the children engaging in adventure play. Each of these elements fuel the idea of risky play, the idea would be to



include these design elements so that the kids respond cautiously when provided with risky objects that serve a functional purpose driving experimentation and exploration. The goal of such approach towards playground design is for facilitating the potential of creating a shared and flexible space that the children can create on their own with the provided resources. Such a rich playful environment that has a built-in tendency of continual change and evolution for children of all ages and abilities allowing for play for all year round can be a crucial asset to the network of neighbourhood public spaces.

Water bodies / nodes



Water plays a key role in the human psyche, water other than its fundamental usage of everyday life exists around us in various forms the stormwater channels and the water collection nodes are inherently possible spots of recreation.

Running water brooks and streams can be leveraged to create a more natural experience when building along with them maintaining contact with the existing or planned open water bodies such as ponds and reservoirs.

While creating opportunities of interaction and reverence towards water by bringing the people close to the source itself, while allowing for a balanced ecological development along the edges that are safe enough for people of all ages and capabilities to come closer and interact and can be enjoyed while these streams and channels run through parks and pedestrian pathways.

The individual residential projects and communities can take a stock of existing and possible water bodies and try integrating them or creating opportunities to bring water in to their environment.



Congregation pockets

These can be semi open spots along the streets and pathways and among parks and other recreational spaces, where people can gather, hangout and socialize comfortably for long hours.

These structures can be temporary or permanent depending on the nature of the adjacent built forms. They can be utilized as shelters for pedestrians and passers-by and can double as nodes for public transit network or shared mobility solutions.

Such congregation pockets can be a part of the larger fabric of mix use spaces in the residential zone where in they contribute to the liveliness of the spaces surrounding them loitering and lingering and in some cases mutually beneficial while put in context of commercial activities and public gathering. For this to result into a pocket of activity among the residents and passers-by it requires physical elements such as benches, displays, micro gardens, etc. These then result in to changing the usual activity of passing by or moving past to gradually relax and create halting activities. Junctions or public squares naturally create a favourable environment for such congregation pockets.

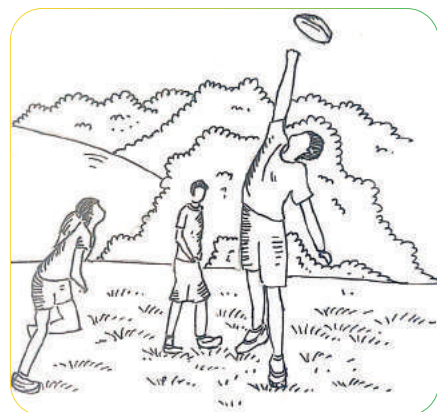
Neighbourhood parks

These can be of varying sizes based of the density of the residents. The concern would be to make these park spaces equitably accessible to all the residents across the residential zone. The features of a neighbourhood park must include playground equipment and other facilities such as walking path and active play spaces that cater to a varying group of user groups of the residential zone. The positioning of such parks can be identified through the proximity to the housing density and other hot spots of activities such as public buildings, schools and healthcare and wellness facilities.

In case of playground or open spaces where institutional spaces are adjacent to public spaces there can be programming components that allow for temporal shift in activities once the primary users of the adjacent institution have surpassed their usage of the space for the day.

Such a programming approach to public and semi-public areas can provide a multi- dimensional approach to open public spaces bringing in an element of shared onus among the larger community of Aurovillians.





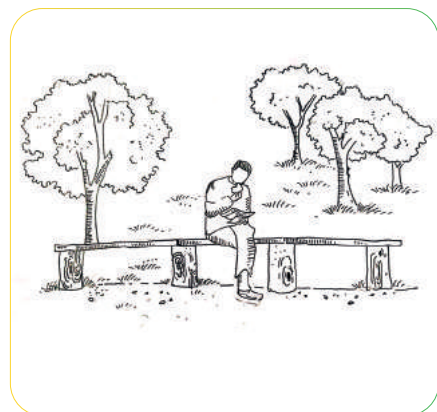
There can be possible variations of neighbourhood parks based on the residential density and configurations of the built environment.

These parks depending on their geographic location and special features can be integrated in to the existing public spaces such as the proposed water bodies- natural or otherwise, in to existing wetlands, woodlands with a significant emphasis on the buffer zones considering the conservation aspects of such eco-sensitive parts of the residential zone.

The degree of sport facilitation should be dependent on the demands of the residents and proximity to other such similar facilities. The neighbourhood parks can be paired up with compact or scaled down sporting facilities that vary depending on the time, age, physical capability and equipment requirements of the particular sport.

The possibility of leveraging the GIT corridor that can not only connect chains of neighbourhood parks but also blur the ideas of their service area being a part of the park, through design elements such as green boulevards and other public infrastructure that can blend in to these parks.

Quiet Recreational Spaces



These are places that are designed in juxtaposition to the lively social exchange and sounds of compact residential and mixed used areas, by providing pockets of quiet solace to individuals seeking to pause and refresh themselves through nature and a sanctuary for people with special needs.

In order to achieve such spaces of induced solitude the designers should look towards the back of built environment that could be protected by elements such as green walls and natural elements that obstruct sound and excessive visual noise applying setbacks from the main road and hubs of public activities. These quiet spots can also be paired with quiet alley ways that connect across other geographical features such as streams and ponds in the area, these spots can be relatively sheltered, the possibilities of pairing poramboke land in the residential zone with such spaces can be explored if the geography permits for such design. These places can nurture activities such as sleeping in public which in turn fosters trust in the public space and the larger community contrary to the current norms of contemporary cities and the uses of public spaces.



Thoroughfares

The possibility of a publicly accessible thoroughfare can be explored in the denser built areas of the residential zone. Such spaces can serve outdoor activities that usually take place in a pedestrian street and brings it to a setting that resembles an indoor street scene while distinctly varying from an indoor public space.

Such spaces can serve as an alternate to other outdoor public activities that need sheltering during non-favourable seasons. Keeping in mind that integrating such spaces with built form would alter the social ecology of an open public space and brings in a new range of different functionalities and practise to such spaces.

These spaces can work in favour of high density built spaces where there is a lack of outdoor space, fostering commercial vending activities, or even temporal programming of performances of various kinds in public. While also serving as shortcuts that invite loitering through built forms keeping in mind that such spaces should minimize the barriers such as doors or gates for pedestrian movements to be fluid and inviting.

For a thoroughfare to be accessible and to serve an alternative public space use, there are certain spatial features that it should possess, these features include the width of such indoor streets which needs to be wide enough that it comfortably facilitates the act of walking and stopping while passing others within the indoor space. The height of the ceiling adds on to the comfort of the user in such spaces.

Some theories suggest “the height of any space should be equal to the appropriate horizontal social distance between people for the given situation” - the higher the ceiling the more distancing people would keep from each other.

To invite people in or through these spaces it needs to have a trail of activities on the edge of such spaces. These help in a possible involuntary action of attracting loiters towards the space. To create a successful thoroughfare they should be built along the continuity of existing or proposed public streets and must function as shortcuts that are lined with public furniture or seating spaces along its edges.

These form the basis for the concept of interconnectedness given in the galaxy concept. The concept connects not just the buildings but is aimed to connect even the people. Now the residents and the developers needs to explore ways of achieving this vision and making such spaces possible and lively.



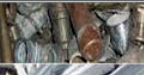
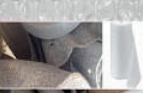
Community Library

The sharing of knowledge through the exchange of physical books or other forms of literature can play a crucial role in social exchange and cohesion as Auroville aspires to be a place for people of all races and cultures. These Aurovillians might bring along artefacts and knowledge in physical or oral forms from their places of origin. Such rich diversities have an opportunity of exchange in places of not just intellect that are in big city libraries but on a day to day exchange at a micro level where they can be facilitated at local libraries in residential areas catering to the daily literary needs of the residents creating platforms of a possible exchange in world views and culture that people bring along.

It might hold potential of a locally placed archival vessel that might double as a communication node for activities such as manuals and knowledge banks on the communities it surrounds and the practices that take place in its close vicinities, while doubling as temporary workshop space.

These can be suitable for lesser density areas or areas that are significantly distant from the main public library it can function as a scaled down model of learning and managing a public space possibly staffed by volunteers from the community learning skills for life.

The waste that is collected from the Auroville communities is further segregated into 83 categories of waste in the campus of Ecoservice as listed in the figure below.

ECOSERVICE		YOU SEPARATE IN 6 CATEGORIES, WE DO IT IN MORE THAN 83.			
					
DO NOT SEND TO ECOSERVICE COMPOST DIRECTLY					
Palm leaf plate Bread Paper Broom Hair Sweeping Dust Traditional Mat Coconut Shell	Fish Bones Old Pooja Flowers Leftover Food Fruit peels Garden waste Tea leftover Vegetable Peels				
KEEP EVERYTHING CLEAN & DRY					
FURTHER DETAILS CONTACT ECO SERVICE ecoservice@auroville.org.in Palani: +91 9443535172 Kali: +91 9443090114					
METAL					
BRASS & COPPER					
ALUMINIUM					
ALUMINIUM CAN					
ALUMINIUM FOIL					
ALUMINIUM SPRAY					
OIL TIN					
IRON					
THIN IRON					
STAINLESS STEEL					
WIRE					
SANITARY		GLASS			
All sanitary is directly bury in the ground. Please wrap it.					
TISSUES,NAPKINS & TOILET PAPER		JAM & PICKLE JAR			
CONDOM		AUROVILLE BOTTLE			
DIAPERS		CLEAR BOTTLE			
MENSTRUAL PADS		GREEN BOTTLE			
DENTAL FLOSS		BIG LOCAL BEER			
CIGARETTE & EAR BUDS		SMALL LOCAL BEER			
PLASTER		BREEZER			
TAMPON		1/4 BOTTLE			
BAND AID		BROKEN GLASS			
HAIR & DUST					
PAPER		PLASTIC			
COLOURED PAPER		PRINTED PLASTIC			
BILL , ENVELOPE		MULTI LAYERS PLASTIC			
PAPER PACKAGING		HARD PLASTIC			
MIX PAPER		SOFT PLASTIC			
NEWSPAPER (crumple)		PLASTIC BOTTLE			
NEWSPAPER (flat)		TRANSPARENT (noise)			
WHITE PAPER		TRANSPARENT (no noise)			
NOTEBOOK		CARRY BAGS			
BOOKS		MILK,OIL & WATER BAGS			
MAGAZINE		PLANTS BAGS			
CARDBOARD		SACKS PLASTIC ROPE			
CEMENT BAGS		BUBBLE WRAPPER			
PAPER FOR BREAD		BLACK & WHITE FOAM			
		PVC PIPE			
		FLEX PIPE			
		NON-RECYCLABLE			
		PAPER CUPS			
		ELECTRONICS			
		CIRCUITS			
		PRINT. CARTRIDGES			
		TAPE CASSETTES CDS			
		BULBS			
		BATTERIES			
		TOXIC PRODUCTS			
		STYROFOAM			
		TRANSPARENT ALUM. WRAPPERS (PRINT)			