

SEPTEMBER 2017



NEIGHBORHOOD
IMPROVEMENT PLAN -
SANJAYNAGAR

**Comprehensive Cycle Parking
Master Plan (Ward 18 & 19)**

Photo Courtesy: Sathya Sankaran, CiFos

PROJECT PARTNERS

The Neighborhood Improvement Partnership Challenge is an initiative of the United Technologies and supported by United Way Bengaluru.

Citizens for Sustainability, Sanjaynagar are one of the grant winners and have carried on this project along with the support of the government partners such as the Directorate of Urban Land Transport (DULT), Bangalore Traffic Police (BTP) and Bengaluru Bruhat Mahanagara Palike (BBMP)



neighbourhood
improvement
partnership
challenge

An initiative of • • • • •



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United Way Bengaluru

Grant winners • • • • •



Government Partners • • • • •



shaping the way cities move

Implementation Partner • • •



PREFACE

This project is the result of co-ordination between three pillars of any city - The Citizens, The Government and The Private, resulting in a collaborative effort to create sustainable neighborhoods.



United Way Bengaluru

ABOUT NEIGHBOHOOD IMPROVEMENT PROJECT:

The **Neighborhood Improvement Partnership (NIP)** is a collaborative effort by citizens, working alongside public officials, to identify key civic challenges in their neighborhoods, and voluntarily contribute time, energy and resources to tackling them. Increasingly around the world, cities are recognizing that a large group of problem solvers interested in the development of their city will have many more ideas, and better knowledge of local conditions than public officials alone can muster.

By inviting citizens too into problem-solving roles, the idea is to embed community engagement as a sustainable methodology for bringing change at neighborhood level and as a result tackle many more problems in the city.

Typically, NIPs focus on improving and maintaining public spaces in different neighborhoods, can rapidly improve the live-ability of many urban areas. At the same time, NIPs also foster a sense of ownership among citizens over the development of their neighborhoods, which is itself an important goal for cities to retain their economic and social vitality. **United Way Bengaluru** was the co-ordinating agency for this program.



ABOUT CITIZENS FOR SUSTAINABILITY (CiFoS) :

Citizens for Sustainability (CiFoS) is a non-profit citizens representative group that believes in engaging productively with all the city players in creating liveable neighborhoods.

The CiFoS collaborative started over conducting the “Cycle Day” initiative to make Sanjaynagar a cycle friendly neighborhood in April 2015 when it was called Team Sanjaynagar, where 6 individuals came together from various corners of Ward 18 and 19 as one of the mandates for being a “Cycle Day” Community Partner was to be a resident welfare association routed in the neighborhood and representing the community.

Post conducting Cycle Day initiatives for a year, CiFoS also started the Walk to School program as it saw interests peaking within school children attending Cycle Day to be able to walk and cycle to school and feel the breeze in their hair.

As a result of both these initiatives encouraging results in adoption of cycling and walking to school have been noted in the schools within the wards.



ABOUT DIRECTORATE OF URBAN LAND TRANSPORT

(DULT) :

The **Directorate of Urban Land Transport (DULT)** has been set up by the Government of Karnataka (GoK) under the Urban Development Department (UDD) with objective to coordinate planning and implementation of Urban Transport projects and programs. The Directorate is in general responsible for overseeing all the urban land transport initiatives in Urban/ Local Planning Areas of Karnataka.

The Directorate of Urban Land Transport through the “Cycle Day” initiative is associated with CiFoS our community partner and is working on making Sanjaynagar Main Road a walkable street. DULT consists of transport and urban planning experts who recognize the need for making neighborhoods more walkable and cyclable and hence create healthy and liveable cities.

The CiFoS identified locations for putting up the cycle stands, under the NIP program, has been reviewed and approved by Transport Planners - Sonal Kulkarni and Ritumoni Sonowal from DULT, under the **Comprehensive Cycle Parking Master Plan** for Wards 18 and 19.

EXECUTIVE SUMMARY

The **Neighborhood Improvement Project** called neighborhoods to initiate projects specific to improvements in the area that would have an effect on the liveability of the community residents. This call for projects was launched in May 2015 and CiFoS was announced as one of the 12 winners in August 2015. The award was one in the category of “Improving Mobility - Sanjaynagar Sustainable Transport Plan” as a part of which identifying locations within the neighborhood to provide bicycle stands was taken up for implementation. This report details out the master plan for Ward 18 and 19 in Bengaluru for placement of cycle stands and the principles used for locating these stands.

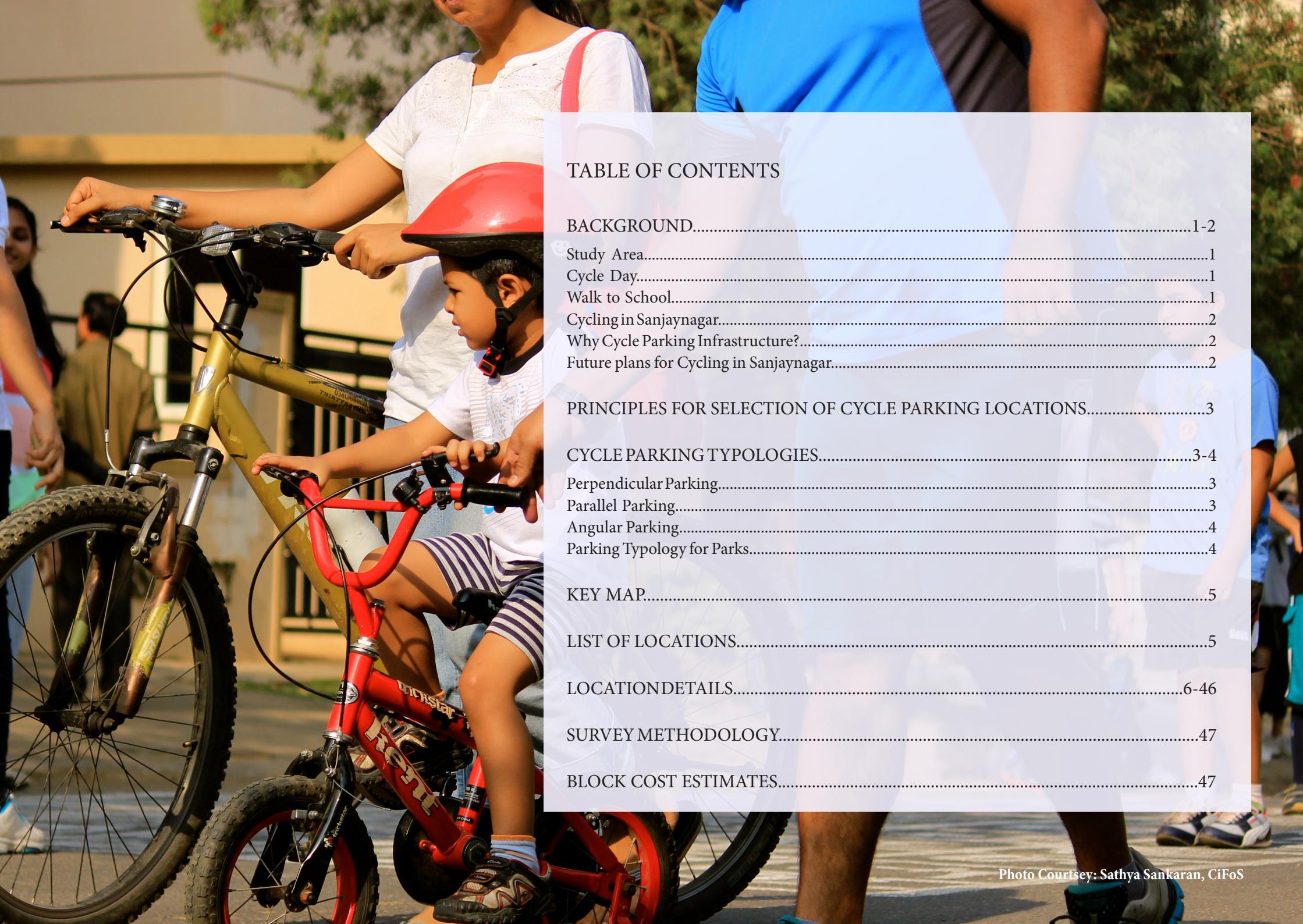


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Photo Courtesy: Sathya Sankaran, CiFoS

BACKGROUND

Study Area:

The study area consists of the BBMP Wards 18 and 19 and parts of Ward 20. These wards are bordered by the Outer Ring Road in the North, New B.E.L. Road on the West, 80 Ft Road on the South and UAS Campus on the East. The study area is around 3.4 sq.km. (1.9 sq.km. of Ward 18 and 1.5 sq. km. of Ward 19) and has a population of 67,613 (Census 2011). The Wards 18 and 19 contain many of the important layouts, neighborhoods and institutes. The Radhakrishna Temple ward contains important institutions such as the ISRO Headquarters and the M.S. Ramaiah Institute of Technology as well as the M.S. Ramaiah Medical Institute and Hospital borders the Ramakrishna Ward.

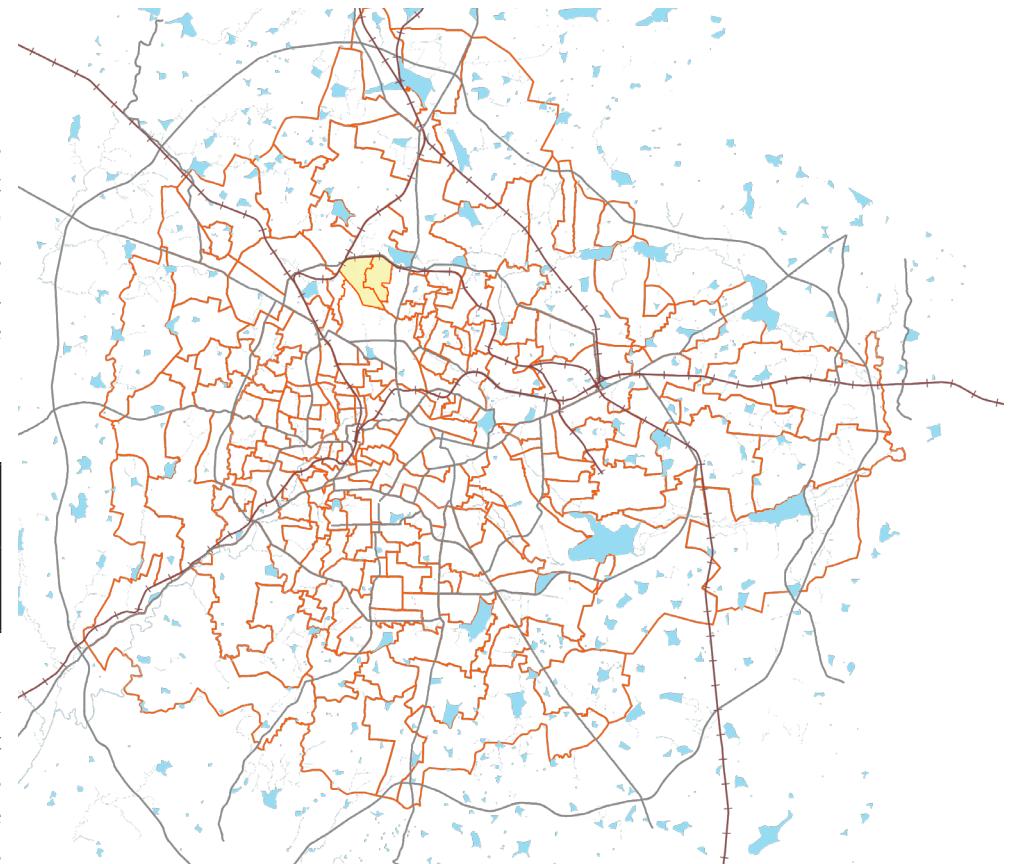
Sl. No.	Ward Name	Ward Number	Ward Area* (in sq.km.)	Assembly Constituency
1.	Radhakrishna Temple	18	1.9	Hebbal
2.	Sanjaynagar	19	1.5	

* Source: BBMP

Cycle Day: Cycle Day is an initiative started by the Bangalore Coalition for Open Streets (BCOS) a partnership anchored by the Directorate of Urban Land Transport (DULT) with NGO partners such as ESAF and Praja RAAG and cycling enthusiasts in the city. This initiative was started to encourage the citizens of Bengaluru to use sustainable modes of transport for atleast neighborhood trips and short commutes which would help decongesting Bengaluru and its environment from the traffic as well as pollution. The initiative has been adopted by 31 neighborhoods across the city today and is continuing to make a change in making a positive social change amongst these neighborhoods.

CiFoS started conducting Cycle Day events as a Community Partner in April 2015 and has completed over 2 years of successfully creating awareness through this initiative.

Walk to School: Happy Routes to School Program is a citizen led government initiative to reverse the trends and habits caused by urbanization in children, parents and teachers and to facilitate children to walk and bicycle to school safely. This program was successfully piloted in November 2015 in Sanjaynagar with the active involvement of ESAF, CiFoS, B.P.A.C, and Schools of Sanjaynagar along with the support of government organizations like Directorate of Urban Land Transport, Bangalore Traffic Police and Department of Public Instructions.



Cycling in Sanjaynagar:

Over the past three-four years, there has been significant increase in the number of cyclists in the neighbourhood due to the awareness initiatives like Cycle Day and Walk to School programme. A momentum of sustainable mobility has been established and residents of different age groups and school children are now adopting to walking and cycling more consciously. A survey was conducted by CiFoS in 2016 in which 8 different schools (total 536 respondents) participated, and the results clearly indicate willingness to walk and cycle. Briefly, the survey results were as follows:

- **72%** of kids are traveling within a distance of 2 Kms. Almost **80%** of children reach to school within 20 minutes.
- On an average **45%** are already using a Non-Motorized Transport mode. The total sustainable transport mode comes to an average of **75%** (includes non-motorized modes and public transport).
- From the existing **18%** of students who cycle to school, there is an increase of **57%** students who wish to cycle to school. **74%** of children wanting to cycle to school feels that cycling to school is a fun activity.
- Almost **75%** parents feel that their respective schools encourage cycling to school.
- **90%** of parents consider cycling to school as a healthy option.

Cycling in Sanjaynagar is an encouraging urban picture where people cycle and more people are willing to cycle, if safety level is enhanced. There is a gradual change in people's attitude and the neighborhood is aspiring to have good Non-Motorized Transport infrastructure. There are substantial number of cyclists placing a rational for investing government funds on creating cycling related infrastructure.

Why Cycle Parking Infrastructure?

Cycle parking is one of the key element of cycling infrastructure. Within an area of approximately 3.4 sq.km, there are many destination points where cyclists bring their cycles and park on-street along with other vehicles. This infrastructure need has been duly recognized by civic and public agencies. There are about 25 parks and playgrounds, 30 schools (primary and secondary level), dense commercial establishments such as banks, small food joints, restaurants, grocery stores, electrical and mechanical stores, garment shops etc. along 80 Feet road, Sanjanagar Main Road, and 80 Feet road within the neighbourhood. Adequate provision of cycle stands for parking will ensure safe keeping of cyclists and encourage people more towards adopting cycling.

In a neighbourhood which is aspirant of being the most bicycle friendly neighbourhood in the city, it is very important to encourage more people to take up bicycle as a mode of commute – for short or long distances. Bicycle parking infrastructure helps communities to:

1. Encourage more residents of the community to use a bicycle, as visible infrastructure always galvanizes mode conversions.
2. Providing parking around commercial hubs in the neighbourhood is great for the businesses as more people from the neighbourhood will use bicycles to get to the neighbourhood commerce and can be used instead of walking.
3. An indirect effect is on the health of the community. A community that uses bicycles for short commutes rather than two-wheelers and four-wheelers will have healthier residents and lesser congestion.
4. Provision of bicycle parking in the neighbourhood also helps legitimize and showcase bicycle as one of the major mode of transport. Visibly people who come to the neighbourhood can see that the residents believe in sustainable mobility.

It helps to avoid any parking woes by helping people park their bicycles orderly and also to not block carriageways and footpaths by parking bicycles anywhere and everywhere.

Future Plans for Cycling in Sanjaynagar

CiFoS envisions to lead the way in creating neighbourhoods designed for walking and cycling. It has a vision of infusing cycling culture into the sustainable development approach for the neighbourhood.

In order to realize the dream of having an NMT friendly neighbourhood, CiFoS along with other civic agencies are driving towards -

- Making cycling a preferred mode for short commute.
- Ensuring safety and making wayfinding easier through innovative solutions.
- Associating with the public agencies to create infrastructure
- Educating neighbourhood residents and school children to adopt cycling.
- Acquiring funds from various public and private entities to build infrastructure through the local governing body.
- Establishing a bridge between public desires and local representatives through open dialogues.

PRINCIPLES FOR SELECTION OF CYCLE PARKING LOCATIONS:

The locations for cycle parking have been chosen based on a set of parameters which help determine the maximum usability of these stands. The parameters that were used to determine the locations have been described below:

Footfall - The number of footfall is largely impacted by the nature of landsuses or activities surrounding the site. Educational institutes and playgrounds are the two important types of landuses that have the potential to bring hoards of cyclists to those locations. Mostly small scale commercial landuses of local nature attract more cyclists than high end shopping centres. Footfall reflects on the potential demand and determines the usability of the infrastructure.

Space availability - The second principle is the availability of space around active locations. Most of the time, locations with concentrated activities where footfalls are high, lack available space. in such cases, curving out space from the existing roadway is one of the solutions.

Security of Cycles - Cycle parking locations should be located in secured places where visibility is high, and where there is considerable movement of people on the street. the design of the cycle stands also ensure adequate provision of secured locking system for cycles.

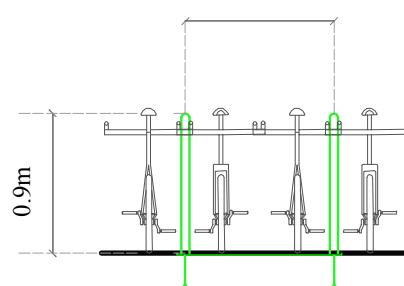
Protection from sun and rain - Although cycles can withstand any harsh weather conditions, users prefer to keep them under shades, protecting them sun and rain. The shaded areas could be natural or artificial.

Density/ spacing of cyle stands - Cycle stands should not be too far from activity points. Therefore, locations with high density of activites have cycle stands at closer locations than locations with sparse activites.

CYCLE PARKING TYPOLOGIES:

Bicycle parking has been classified into 4 types for the requirements in Sanjaynagar neighbourhood and this typology can be repeated in many other neighbourhoods in cities. The parking typologies have been derived by using space availability as a parameter.

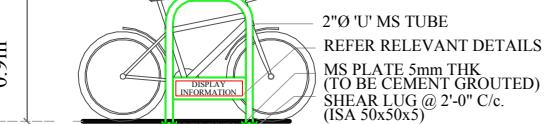
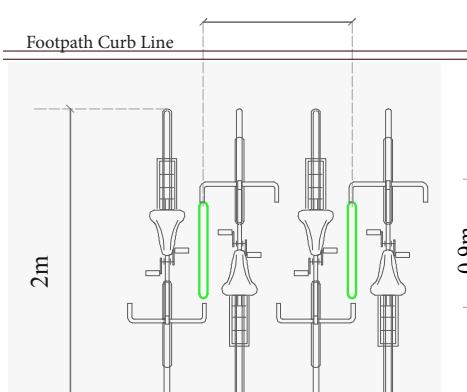
1m



PERPENDICULAR PARKING

Perpendicular cycle parking is suggested at locations where the right of way is adequate enough to assign 2m space for parking. The dimensions considered under this typology are 1m/U * 2m width, although the actual width required is 1.9m.

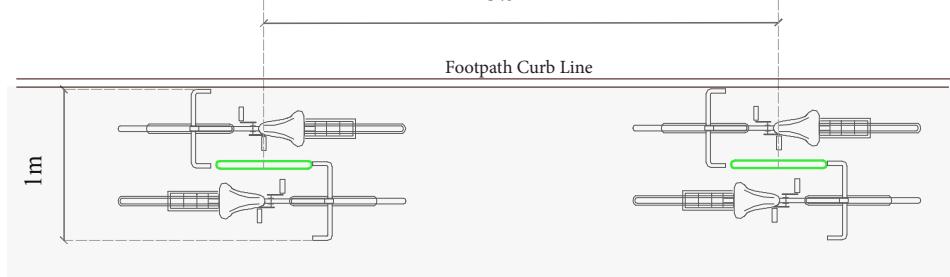
1m



PARALLEL PARKING:

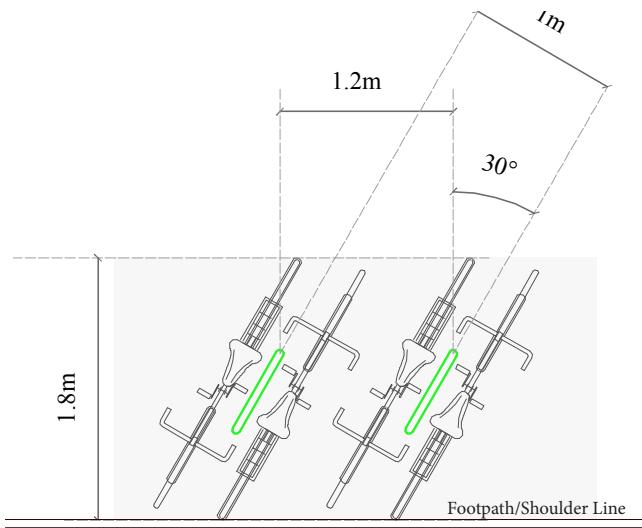
In locations where there is no space or less than 2.5m clear space for parking bicycles on the footpath in a row, perpendicular to the footpath, parallel parking is suggested. Parallel parking will be U-bends placed like a railing at the edge of the footpath. The dimensions considered under this typology are 3.5m/U * 1m width.

3.5m



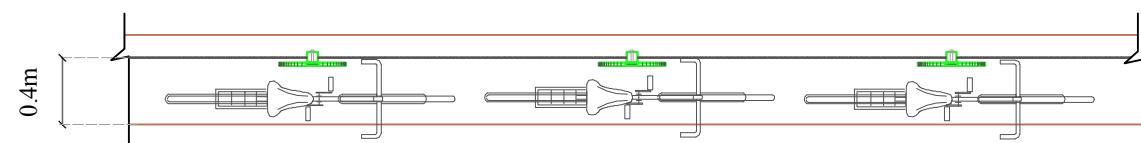
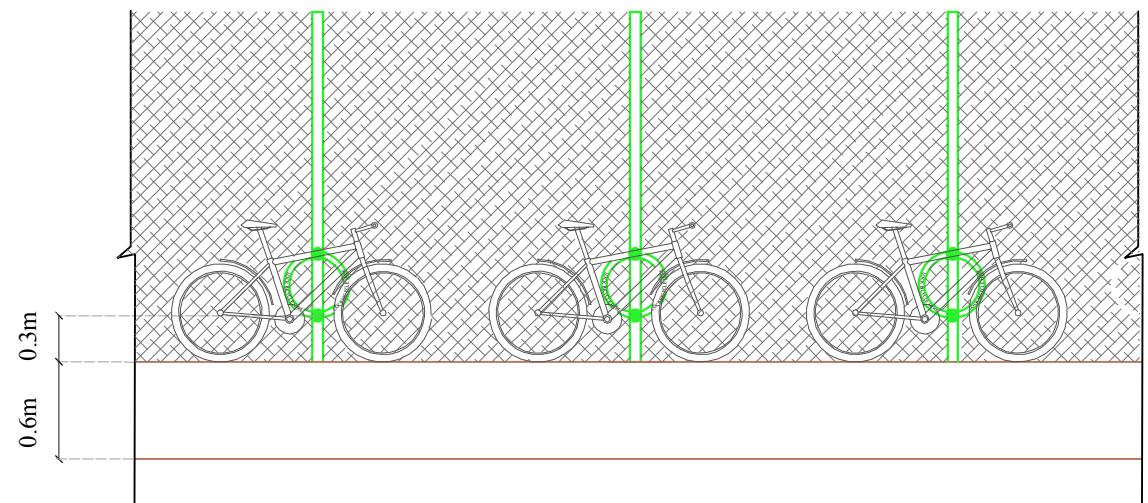
ANGULAR PARKING

Perpendicular cycle parking is suggested at locations where 2m width is not possible. The dimensions considered under this typology are $1.2\text{m}/U * 1.8\text{m}$ width.

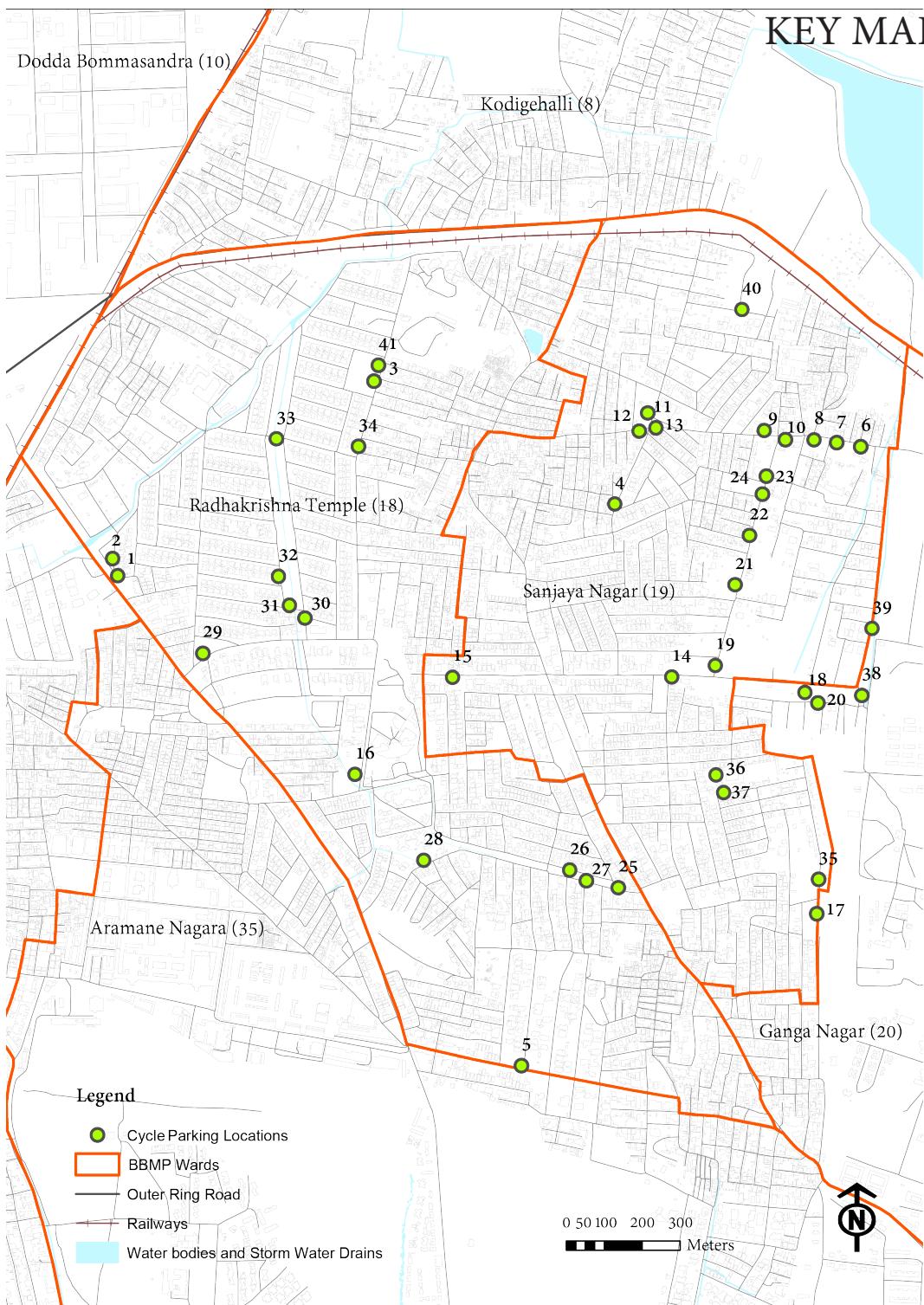


PARKING TYPOLOGY FOR PARKS (ON FENCE)

At parks, cycle parking is proposed along the fence outside the park. This will consume a bare minimum space of 0.4m from walking space adjacent to the park.

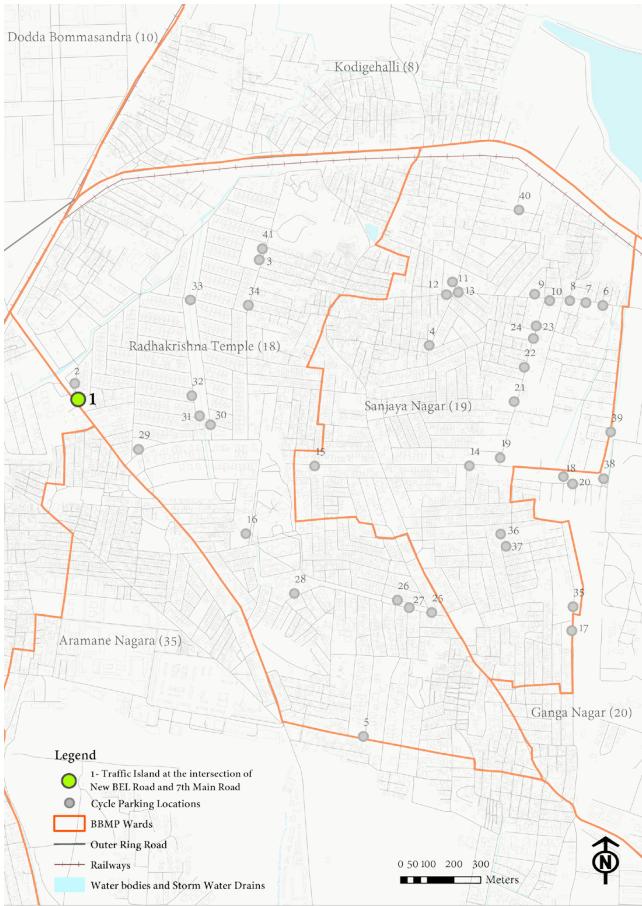


KEY MAP



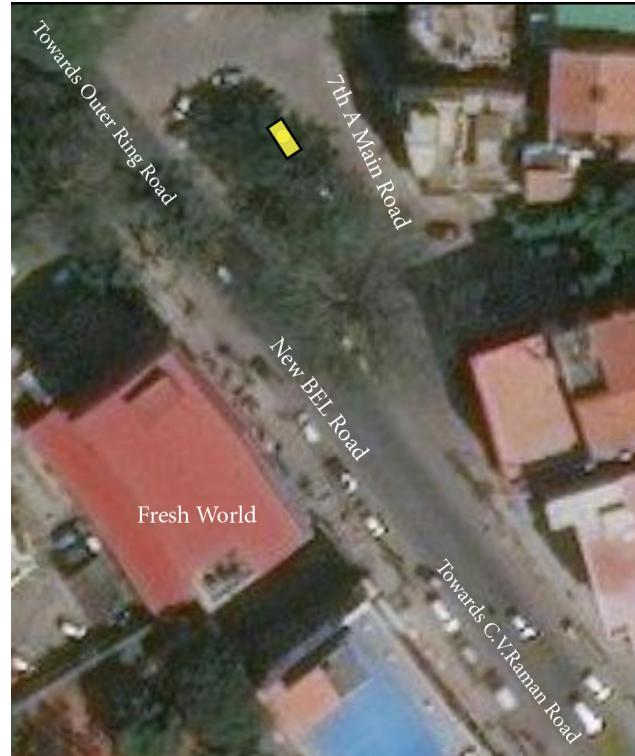
LIST OF LOCATIONS

Sl. No.	Location	Sl. No.	Location
1.	Traffic Island on New BEL road and 7th main road intersection	22.	Hot chips opposite to sapphire house
2.	BBMP park on New BEL road	23.	In front of mind space architects
3.	BBMP school (1st main road) Nagishettyhalli	24.	Srinivas condiments
4.	UAS Layout library	25.	Near Sandeepani Niketan school
5.	BBMP Park, 80 ft Road	26.	Opposite Sandeepani School (1)
6.	Ganesh enterprises to end of Hebbal properties	27.	Opposite Sandeepani School (2)
7.	In front of euphoria	28.	Outside REVA independent PU college
8.	Bhoopsandra bus stand	29.	Keshava playground
9.	Patel's Keerthi (next to SBI)	30.	RMV II welfare society tennis court
10.	SBI	31.	RMV II welfare society tennis court (2)
11.	NTI bus stand	32.	Boulevard park road
12.	NTI playground	33.	Boulevard park (7th cross road)
13.	NTI playground	34.	Outside Sri sai tours and travels
14.	Shopwel supermarket	35.	Shiksha Sagar High School
15.	Vimanavana (60ft road park)	36.	Kids park adjacent to Daffodils school
16.	Subhodaya park (ISRO park)	37.	Daffodils English School entrance
17.	4th cross road BBMP park	38.	Cycle Day Bus stop
18.	Coconut grove park	39.	UAS campus back entry
19.	Kalpana Chawla open space/ playground	40.	KMF grounds (Nandini hostel)
20.	BBMP strip park	41.	1st Main Road Bus stop (Nagishettyhalli, near Pebble Bay)
21.	Hoysala Srikrishna apartment		



1

Location Name: Traffic Island on New BEL road and 7th main road intersection
 Latitude-Longitude: 13.039377763102/ 77.5642731785774



PROPOSED CYCLE PARKING LOCATION DETAILS

Type of Location: **Shoulder**

Cycle Stand Type: **Perpendicular**

Number of Ports/Us: 5

Number of Cycles: 10

Space Requirement: 5m length * 2m width

Land Ownership: BBMP

Obstructions: No

If Yes, description of obstructions: NA

INFORMATION FOR REFERENCE

Name of the Road: 7th A Main Road

Existing Right of Way (ROW): 9m

Footpath Width: 0m

Footfall: Medium

Surrounding Activities: Commercial, Residences

Pedestrian space available after placement of stand: No





2

Location Name: BBMP park on New BEL road

Latitude-Longitude: 13.0395701487508/ 77.5642725080252



PROPOSED CYCLE PARKING LOCATION DETAILS

Type of Location: Shoulder

Cycle Stand Type: Perpendicular

Number of Ports/Us: 5

Number of Cycles: 10

Space Requirement: 5m length * 2m width

Land Ownership: BBMP

Obstructions: No

If Yes, description of obstructions: NA

INFORMATION FOR REFERENCE

Name of the Road: 7th A Main Road

Existing Right of Way (ROW): 9m

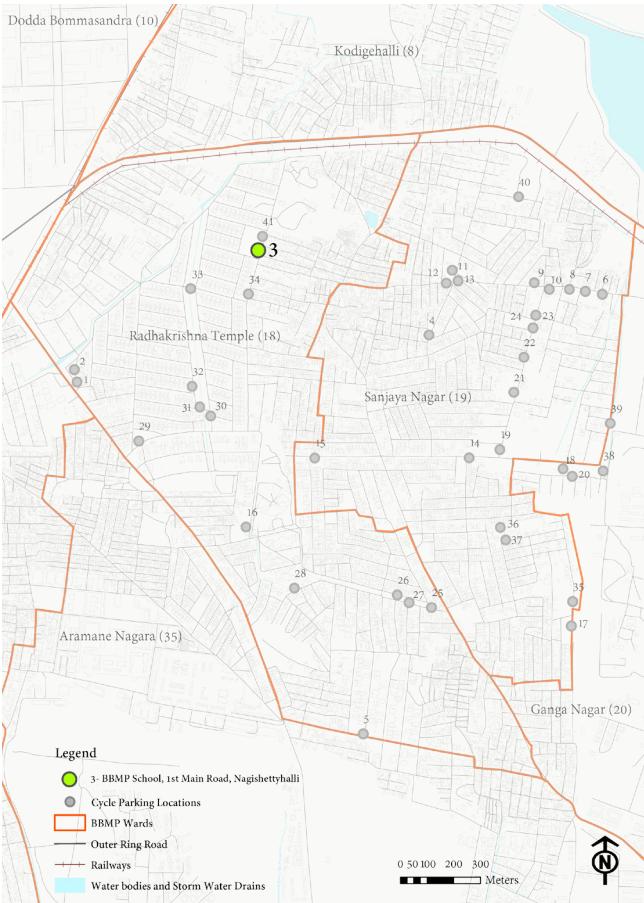
Footpath Width: 1.5m

Footfall: Low

Surrounding Activities: Residences, Park

Pedestrian space available after placement of stand: Yes





3

Location Name: BBMP school (1st main road) Nagishettyhalli
 Latitude-Longitude: 13.043718979089/ 77.5704831629992



PROPOSED CYCLE PARKING LOCATION DETAILS

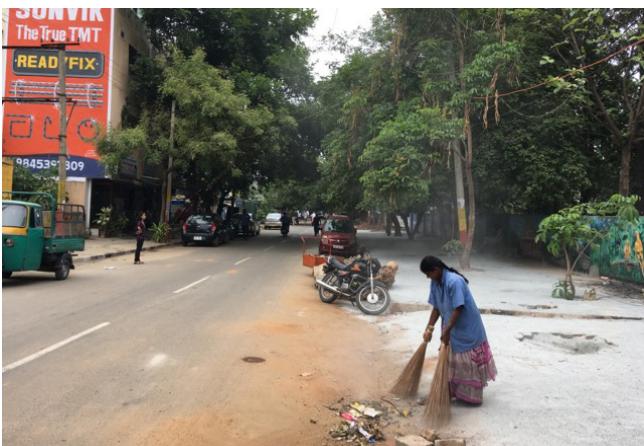
Type of Location: **Footpath**
 Cycle Stand Type: **Perpendicular**
 Number of Ports/Us: **10**
 Number of Cycles: **20**
 Space Requirement: **10m length * 2m width**

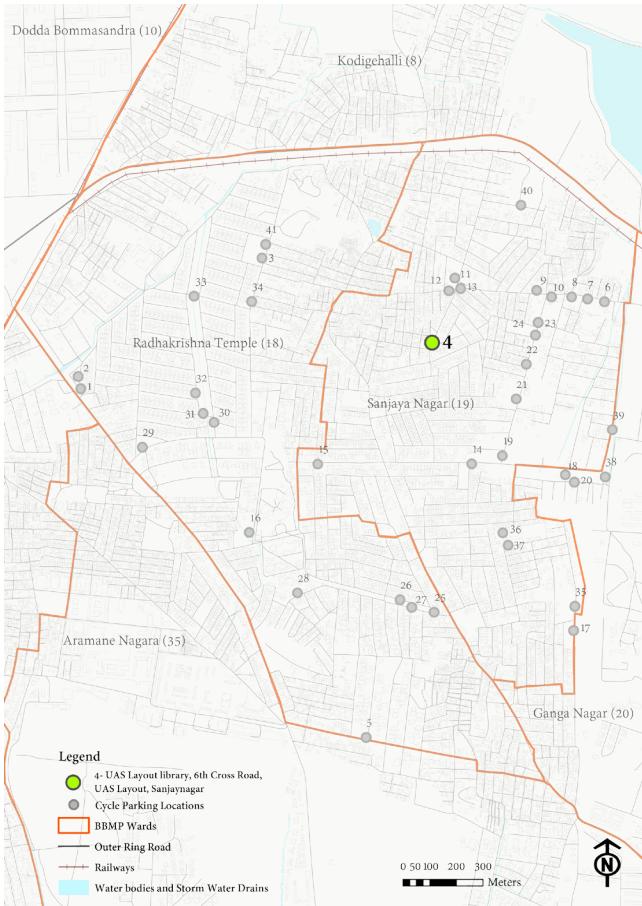
Land Ownership: **BBMP**
 Obstructions: **No**

If Yes, description of obstructions: **NA**

INFORMATION FOR REFERENCE

Name of the Road: **1st main road**
 Existing Right of Way (ROW): **15m**
 Footpath Width: **4m**
 Footfall: **Medium**
 Surrounding Activities: **School, Residences, Commercial**
 Pedestrian space available after placement of stand: **Yes**

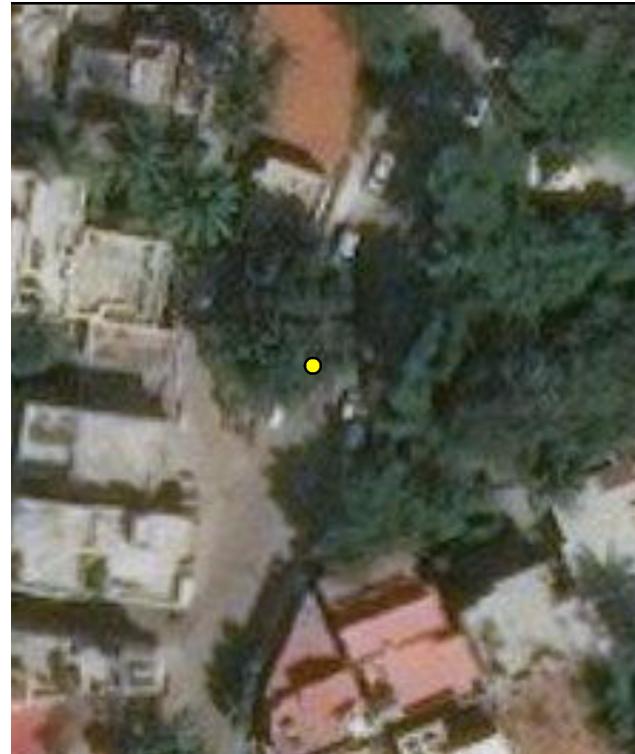




4

Location Name: **UAS Layout library**

Latitude-Longitude: 13.040889407259666/ 77.57618755102158



PROPOSED CYCLE PARKING LOCATION DETAILS

Type of Location: **Plot**

Cycle Stand Type: **Perpendicular**

Number of Ports/Us: **5**

Number of Cycles: **10**

Space Requirement: **5m length * 2m width**

Land Ownership: **BBMP**

Obstructions: **No**

If Yes, description of obstructions: **NA**

INFORMATION FOR REFERENCE

Name of the Road: **1st main rd, UAS Layout**

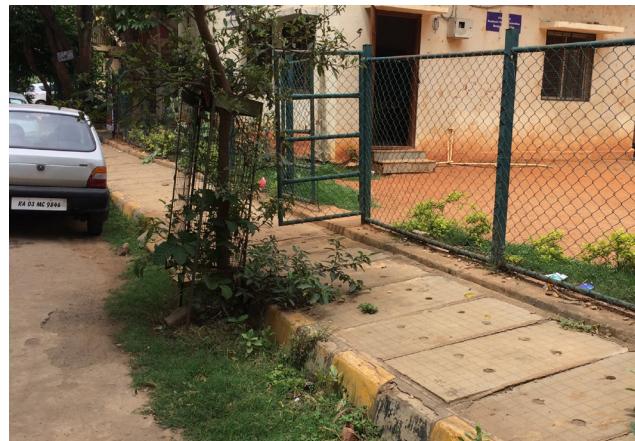
Existing Right of Way (ROW): **9m**

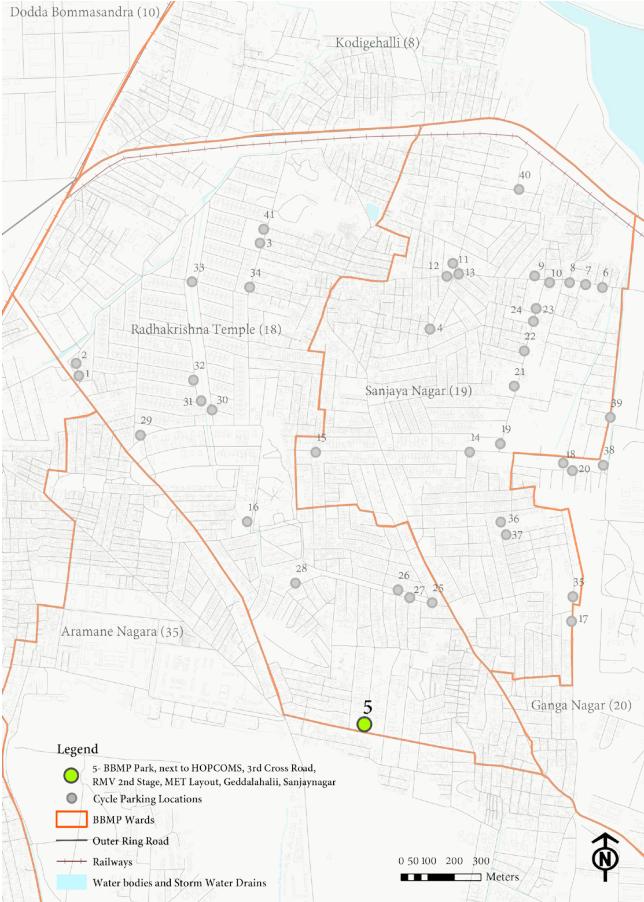
Footpath Width: **0m**

Footfall: **Low**

Surrounding Activities: **Residences**

Pedestrian space available after placement of stand: **Yes**

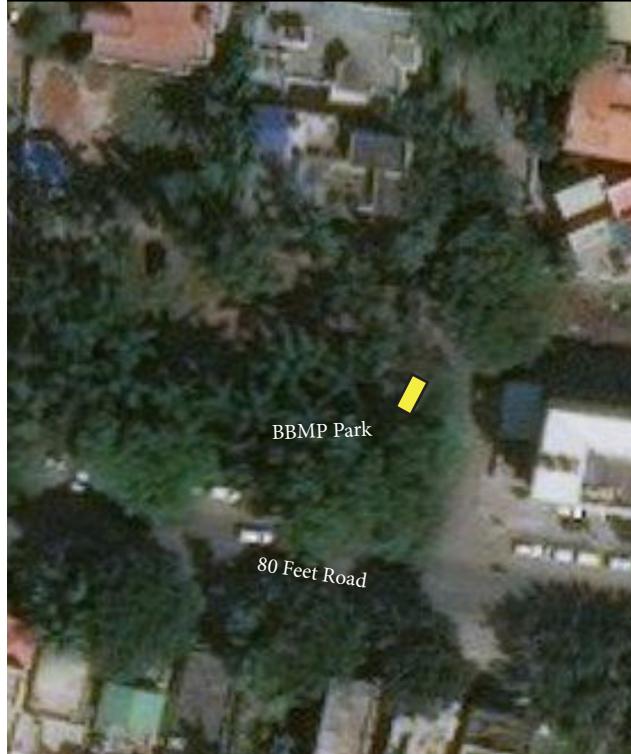




5

Location Name: **BBMP Park, 80Ft Road**

Latitude-Longitude: 13.02798722090813/ 77.57397338747978



PROPOSED CYCLE PARKING LOCATION DETAILS

Type of Location: **Footpath**

Cycle Stand Type: **Perpendicular**

Number of Ports/Us: **5**

Number of Cycles: **10**

Space Requirement: **5m length * 2m width**

Land Ownership: **BBMP**

Obstructions: **Yes**

If Yes, description of obstructions: NA

INFORMATION FOR REFERENCE

Name of the Road: **80 Ft Road**

Existing Right of Way (ROW): **15m**

Footpath Width: **2m**

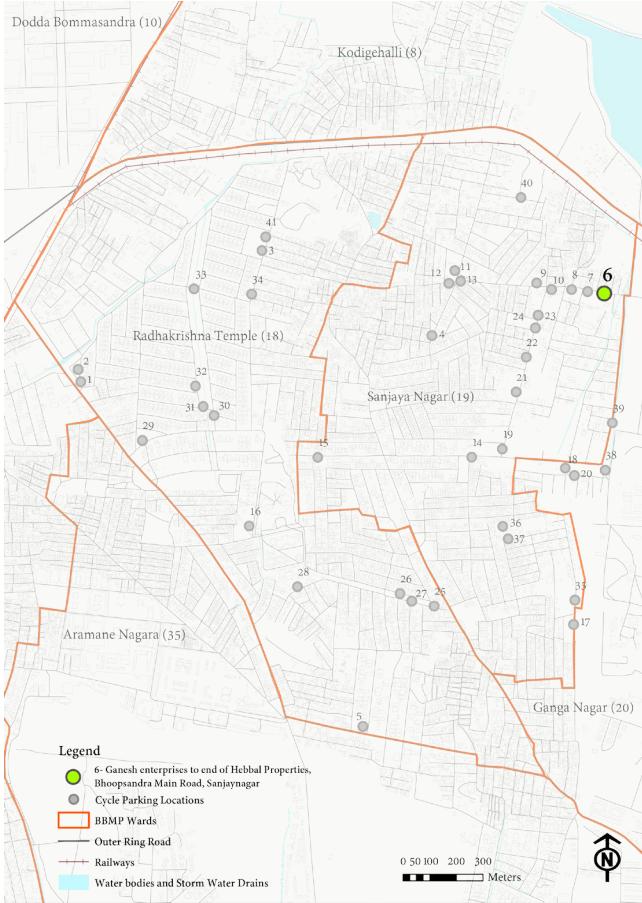
Footfall: **High**

Surrounding Activities: **Residences, Commercial, Park**

Pedestrian space available after placement of stand: **Yes**



10



6

Location Name: Ganesh enterprises to end of Hebbal properties
Latitude-Longitude: 13.0422099652422/ 77.5820012390614



PROPOSED CYCLE PARKING LOCATION DETAILS

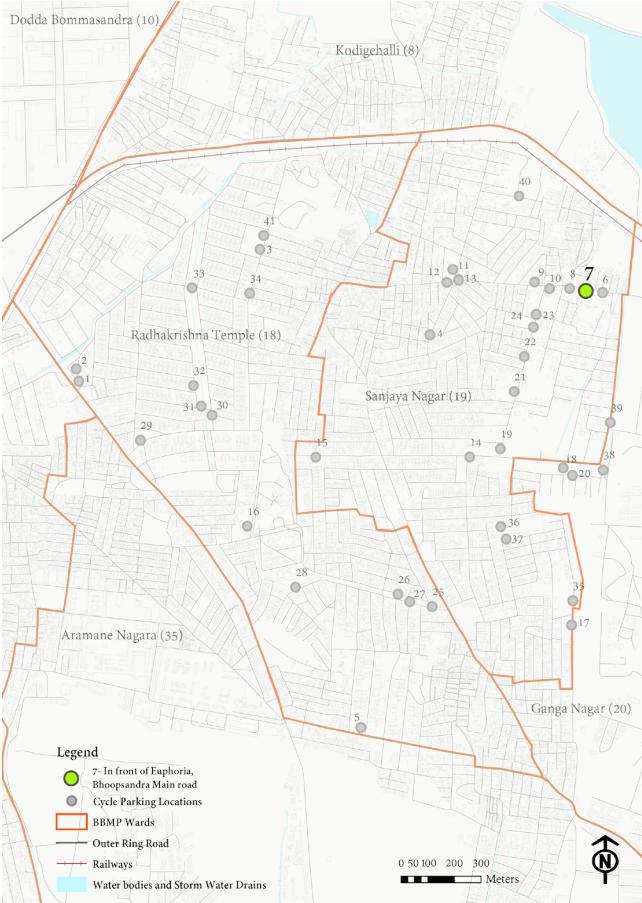
Type of Location: **Footpath**
Cycle Stand Type: **Parallel**
Number of Ports/Us: **8**
Number of Cycles: **16**
Space Requirement: **14m length * 2m width**
Land Ownership: **BBMP**
Obstructions: **No**

If Yes, description of obstructions: NA

INFORMATION FOR REFERENCE

Name of the Road: **Bhoopsandra Main road**
Existing Right of Way (ROW): **15m**
Footpath Width: **4m**
Footfall: **Low**
Surrounding Activities: **School, Commercial**
Pedestrian space available after placement of stand: **Yes**

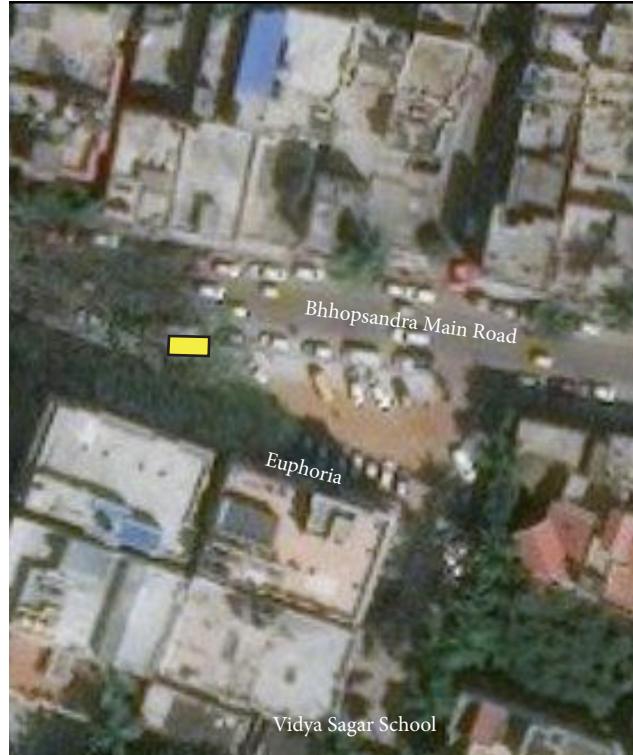




7

Location Name: **In front of Euphoria**

Latitude-Longitude: 13.0423043605342/ 77.5814295932651



PROPOSED CYCLE PARKING LOCATION DETAILS

Type of Location: **Footpath**

Cycle Stand Type: **Perpendicular**

Number of Ports/Us: **6**

Number of Cycles: **12**

Space Requirement: **6m length * 2m width**

Land Ownership: **BBMP**

Obstructions: **Yes**

If Yes, description of obstructions: Speed hump sign poles

INFORMATION FOR REFERENCE

Name of the Road: Bhoopsandra main road

Existing Right of Way (ROW): 15m

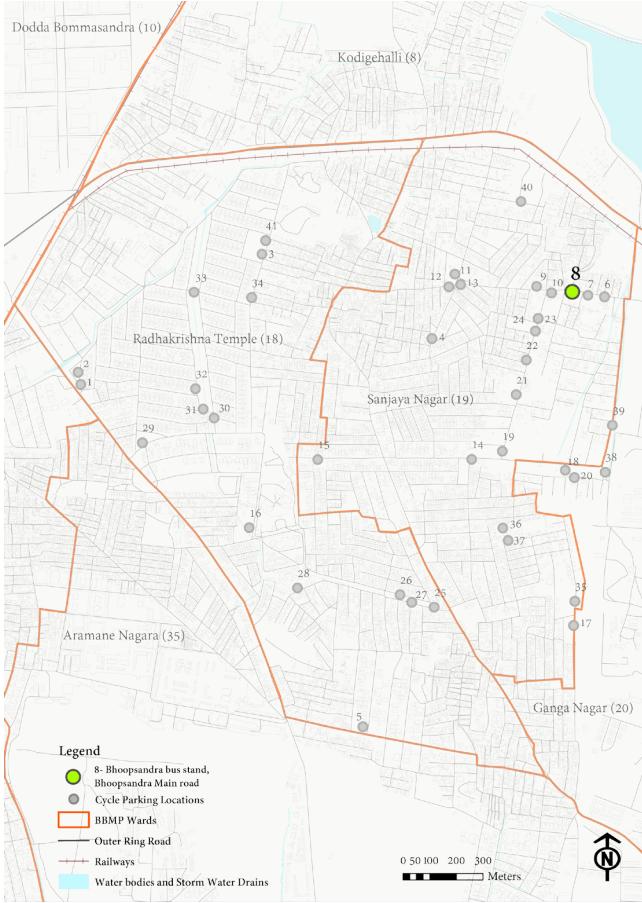
Footpath Width: 2m

Footfall: Low

Surrounding Activities: School, Residences, Commercial

Pedestrian space available after placement of stand: No





8

Location Name: **Bhoopsandra Bus Stop**

Latitude-Longitude: 13.0423654398216/ 77.5808938220143



PROPOSED CYCLE PARKING LOCATION DETAILS

Type of Location: **Footpath**

Cycle Stand Type: **Perpendicular**

Number of Ports/Us: **3**

Number of Cycles: **6**

Space Requirement: **3m length * 2m width**

Land Ownership: **BBMP**

Obstructions: **NA**

If Yes, description of obstructions: **NA**

INFORMATION FOR REFERENCE

Name of the Road: **Bhoopsandra main road**

Existing Right of Way (ROW): **15m**

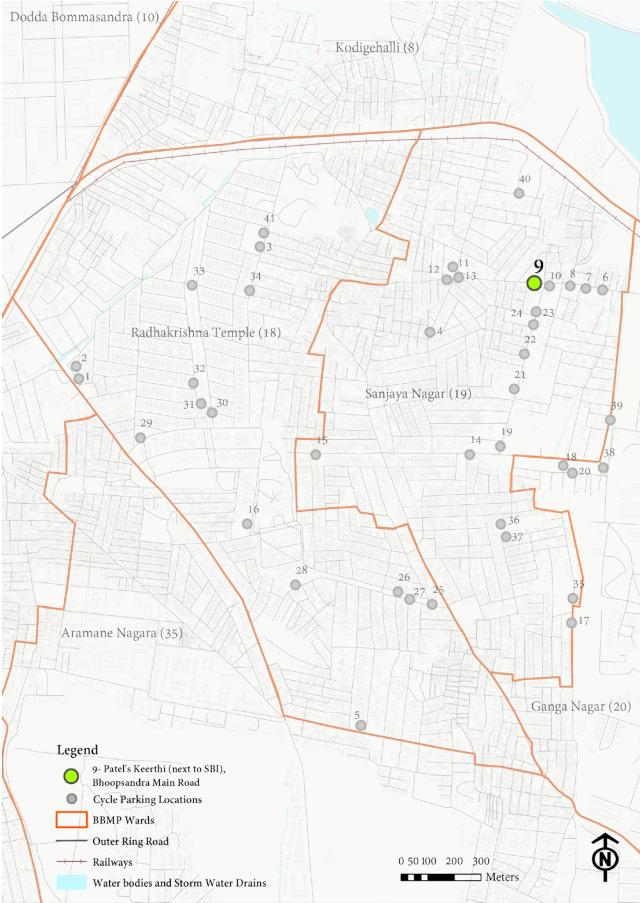
Footpath Width: **3m**

Footfall: **Medium**

Surrounding Activities: **School, Residences, Commercial**

Pedestrian space available after placement of stand: **No**

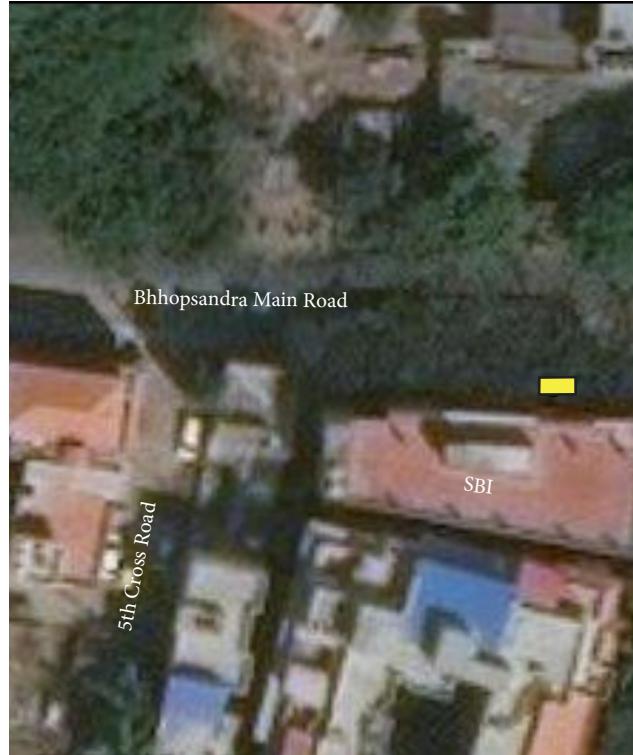




9

Location Name: **Patel's Keerthi (next to SBI)**

Latitude-Longitude: 13.0423719723648/ 77.5798001512885



PROPOSED CYCLE PARKING LOCATION DETAILS

Type of Location: **Footpath**

Cycle Stand Type: **Perpendicular**

Number of Ports/Us: **5**

Number of Cycles: **10**

Space Requirement: **5m length * 2m width**

Land Ownership: **BBMP**

Obstructions: **No**

If Yes, description of obstructions: **NA**

INFORMATION FOR REFERENCE

Name of the Road: **Bhoopsandra main road**

Existing Right of Way (ROW): **15m**

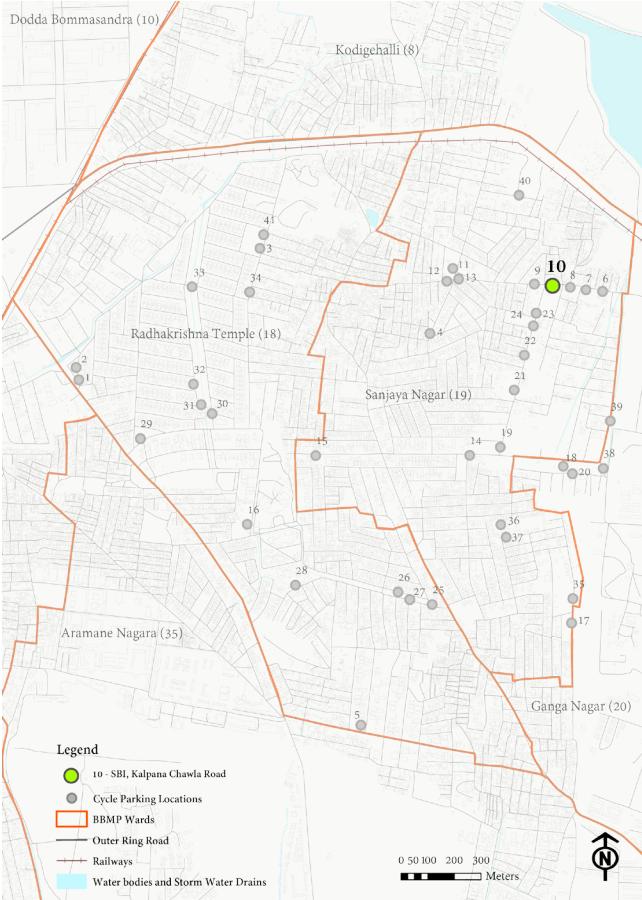
Footpath Width: **2.4m**

Footfall: **High**

Surrounding Activities: **School, Residences, Bank, Commercial**

Pedestrian space available after placement of stand: **Yes**





10

Location Name: **SBI**

Latitude-Longitude: 13.0422733309439/ 77.5799698010087



PROPOSED CYCLE PARKING LOCATION DETAILS

Type of Location: **Footpath**

Cycle Stand Type: **Parallel**

Number of Ports/Us: **2**

Number of Cycles: **4**

Space Requirement: **7m length * 1m width**

Land Ownership: **BBMP**

Obstructions: **No**

If Yes, description of obstructions: **NA**

INFORMATION FOR REFERENCE

Name of the Road: **Kalpana Chawla road**

Existing Right of Way (ROW): **15m**

Footpath Width: **3m**

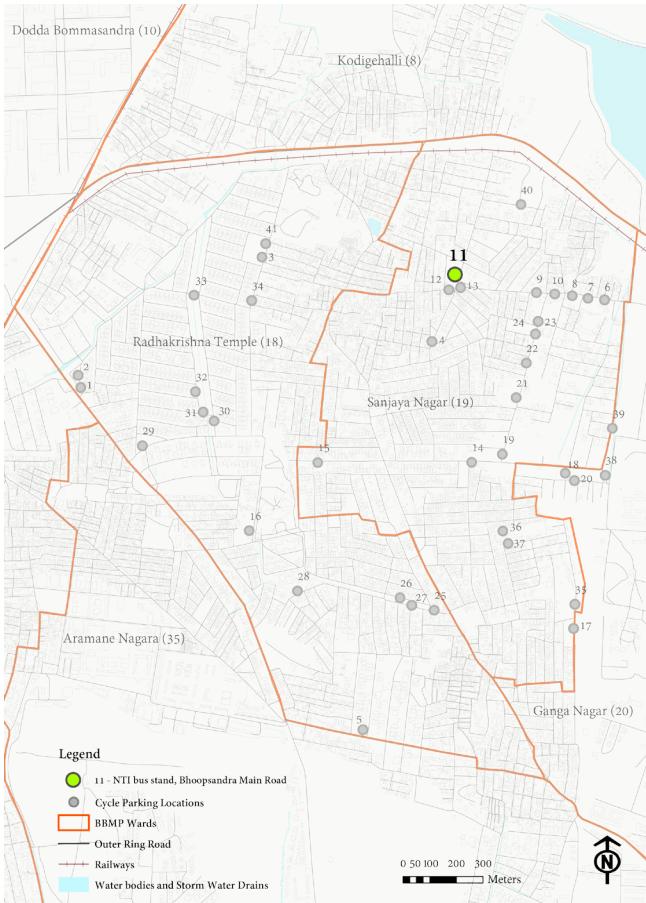
Footfall: **Medium**

Surrounding Activities: **School, Residences, Bank, Commercial**

Pedestrian space available after placement of stand: **Yes**



15



11

Location Name: **NTI bus stand**

Latitude-Longitude: 13.0426453591434/ 77.5770867615938



PROPOSED CYCLE PARKING LOCATION DETAILS

Type of Location: **Footpath**

Cycle Stand Type: **Parallel**

Number of Ports/Us: **2**

Number of Cycles: **4**

Space Requirement: **7.5m length * 1m width**

Land Ownership: **BBMP**

Obstructions: **Yes**

If Yes, description of obstructions: Vending stalls, signage

INFORMATION FOR REFERENCE

Name of the Road: Bhoopsandra main road

Existing Right of Way (ROW): 12m

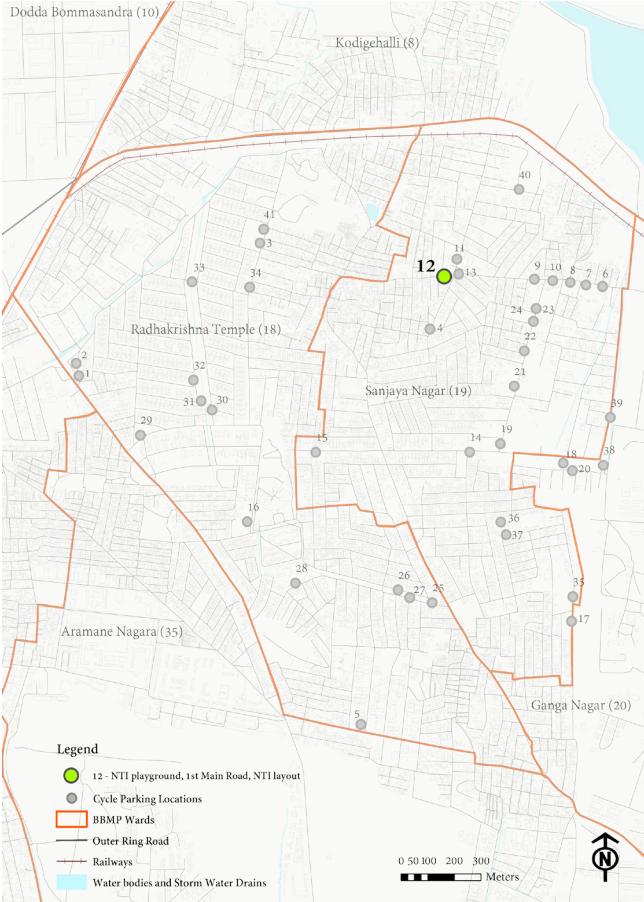
Footpath Width: 1m

Footfall: Medium

Surrounding Activities: School, Residences, Bus Stop, Commercial

Pedestrian space available after placement of stand: Yes

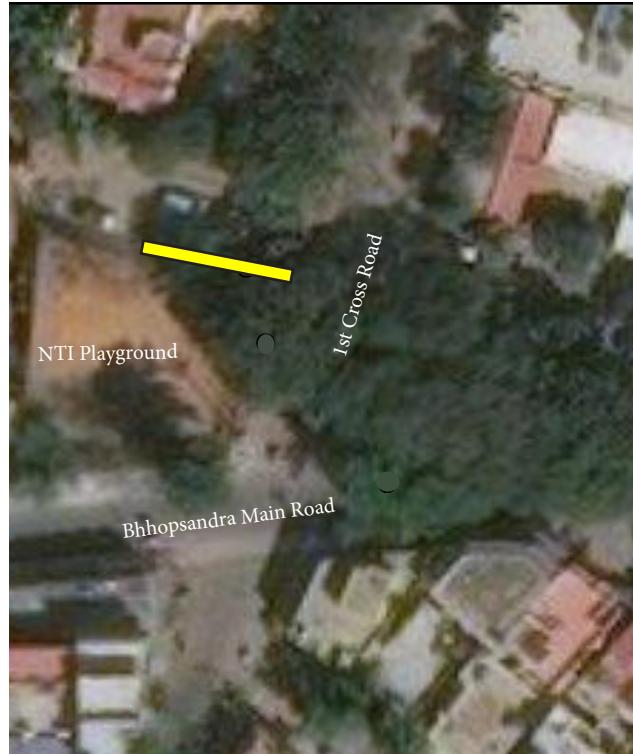




12

Location Name: **NTI playground**

Latitude-Longitude: 13.0428442747817/ 77.5769539922476



PROPOSED CYCLE PARKING LOCATION DETAILS

Type of Location: **Shoulder**

Cycle Stand Type: **Parallel**

Number of Ports/Us: **3**

Number of Cycles: **6**

Space Requirement: **10.5m length * 1m width**

Land Ownership: **BBMP**

Obstructions: **Yes**

If Yes, description of obstructions: Stone slabs

INFORMATION FOR REFERENCE

Name of the Road: 1st main road, NTI layout

Existing Right of Way (ROW): **9m**

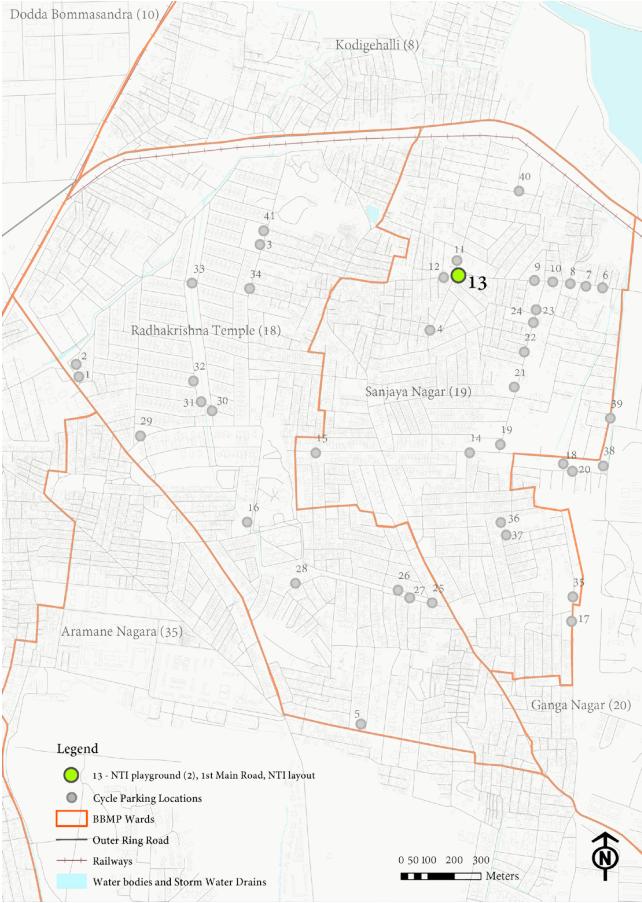
Footpath Width: **0m, Shoulder 2m**

Footfall: **Medium**

Surrounding Activities: School, Residences, Playground

Pedestrian space available after placement of stand: **No**

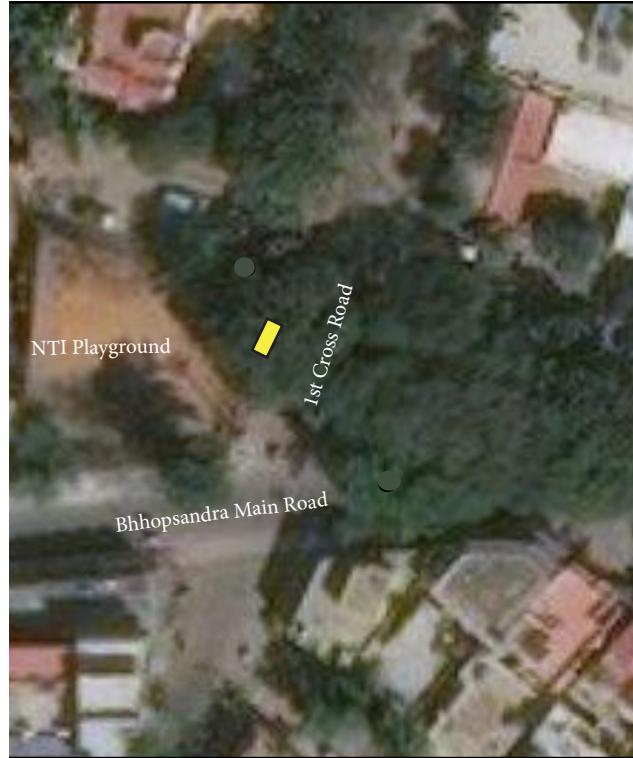




13

Location Name: **NTI playground**

Latitude-Longitude: 13.042776009827/ 77.5769727677107



PROPOSED CYCLE PARKING LOCATION DETAILS

Type of Location: **Footpath**

Cycle Stand Type: **Perpendicular**

Number of Ports/Us: **2**

Number of Cycles: **4**

Space Requirement: **2m length * 2m width**

Land Ownership: **BBMP**

Obstructions: **Yes**

If Yes, description of obstructions: Parking and vendors

INFORMATION FOR REFERENCE

Name of the Road: **1st Main road**

Existing Right of Way (ROW): **15m**

Footpath Width: **0m, Shoulder**

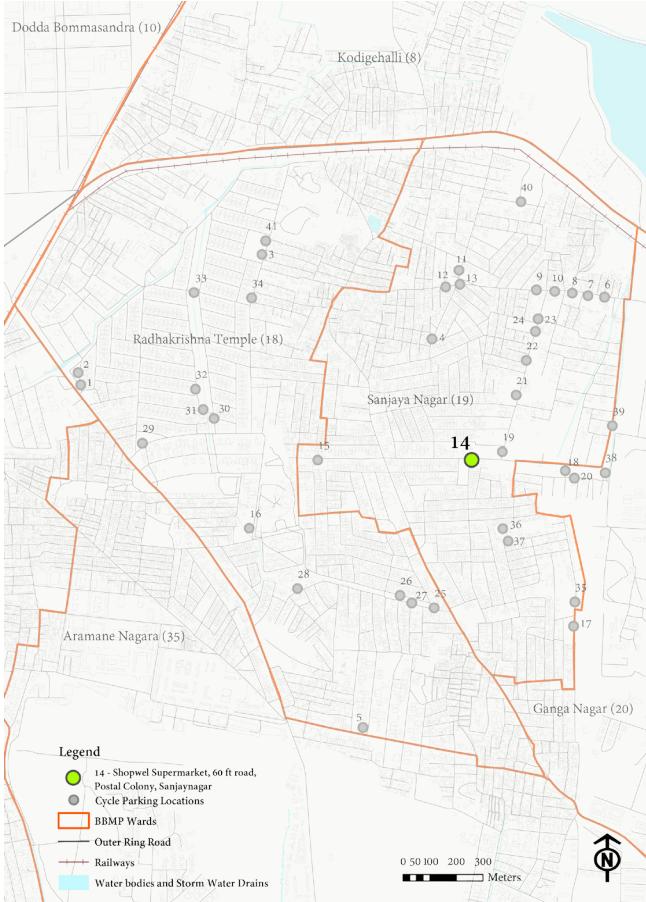
Footfall: **Medium**

Surrounding Activities: **School, Residences, Playground, Bus Stop**

Pedestrian space available after placement of stand: **No**



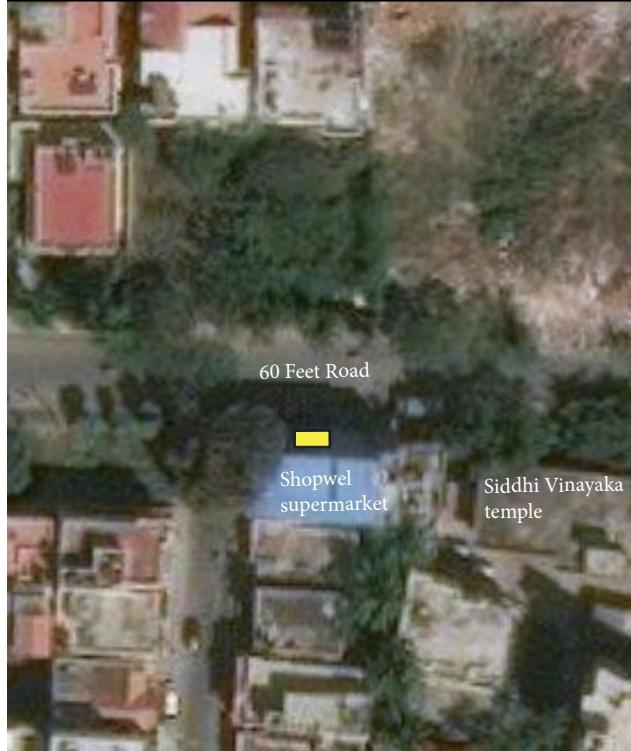
18



14

Location Name: **Shopwel supermarket**

Latitude-Longitude: 13.036915278911/ 77.577528655529



PROPOSED CYCLE PARKING LOCATION DETAILS

Type of Location: **Footpath**

Cycle Stand Type: **Perpendicular**

Number of Ports/U's: **3**

Number of Cycles: **6**

Space Requirement: **3m length * 2m width**

Land Ownership: **BBMP**

Obstructions: **No**

If Yes, description of obstructions: **NA**

INFORMATION FOR REFERENCE

Name of the Road: **60 ft road**

Existing Right of Way (ROW): **15m**

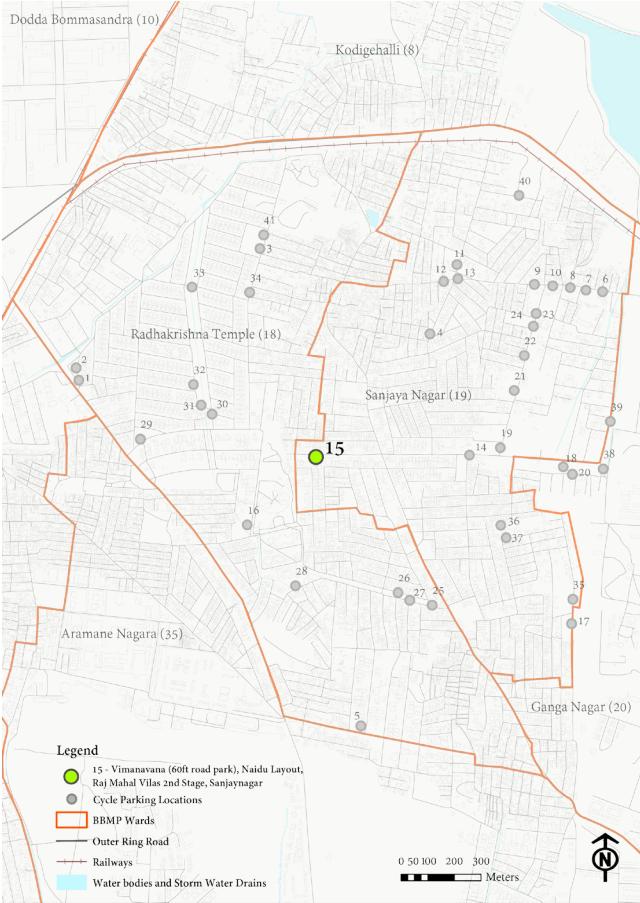
Footpath Width: **3m**

Footfall: **Medium**

Surrounding Activities: School, Residences, Commercial

Pedestrian space available after placement of stand: **Yes**





15

Location Name: **Vimanavana (60ft road park)**

Latitude-Longitude: 13.0369074396862/ 77.5723469629884



PROPOSED CYCLE PARKING LOCATION DETAILS

Type of Location: **Footpath**

Cycle Stand Type: **On fence**

Number of Ports/Us: **10 (different design)**

Number of Cycles: **10**

Space Requirement: **12m length (approx.) * 0.4m width**

Land Ownership: **BBMP**

Obstructions: **Yes**

If Yes, description of obstructions: Transformers

INFORMATION FOR REFERENCE

Name of the Road: **60ft road**

Existing Right of Way (ROW): **15m**

Footpath Width: **3.5m**

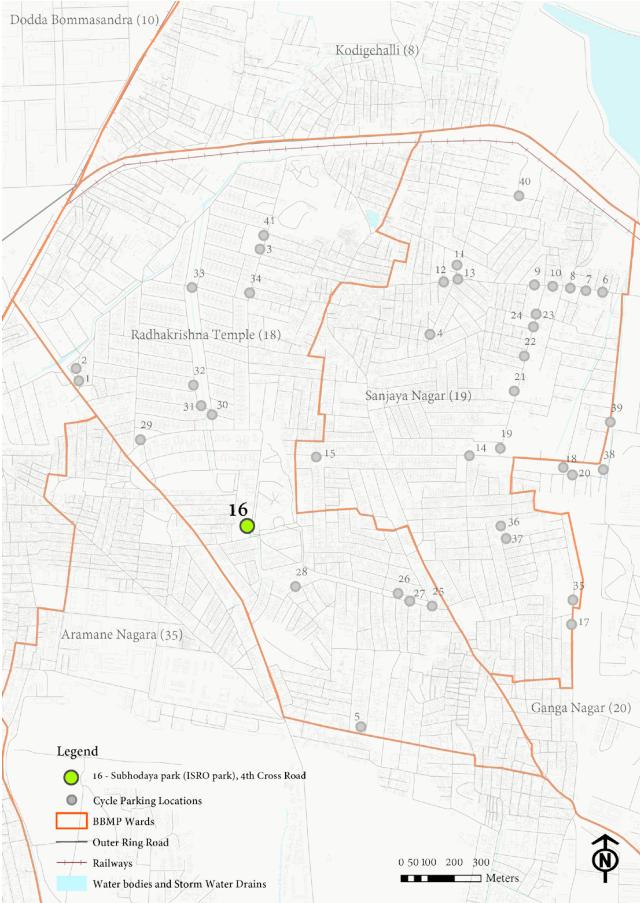
Footfall: **Medium**

Surrounding Activities: **Residences, Park**

Pedestrian space available after placement of stand: **No**



20



16

Location Name: **Subhodaya park (ISRO park)**

Latitude-Longitude: 13.0346739037781/ 77.5700379163027



PROPOSED CYCLE PARKING LOCATION DETAILS

Type of Location: Shoulder

Cycle Stand Type: **Perpendicular**

Number of Ports/Us: 5

Number of Cycles: 10

Space Requirement: 5m length * 2m width

Land Ownership: **BBMP**

Obstructions: **No**

If Yes, description of obstructions: NA

INFORMATION FOR REFERENCE

Name of the Road: 4th cross road

Existing Right of Way (ROW): 12m

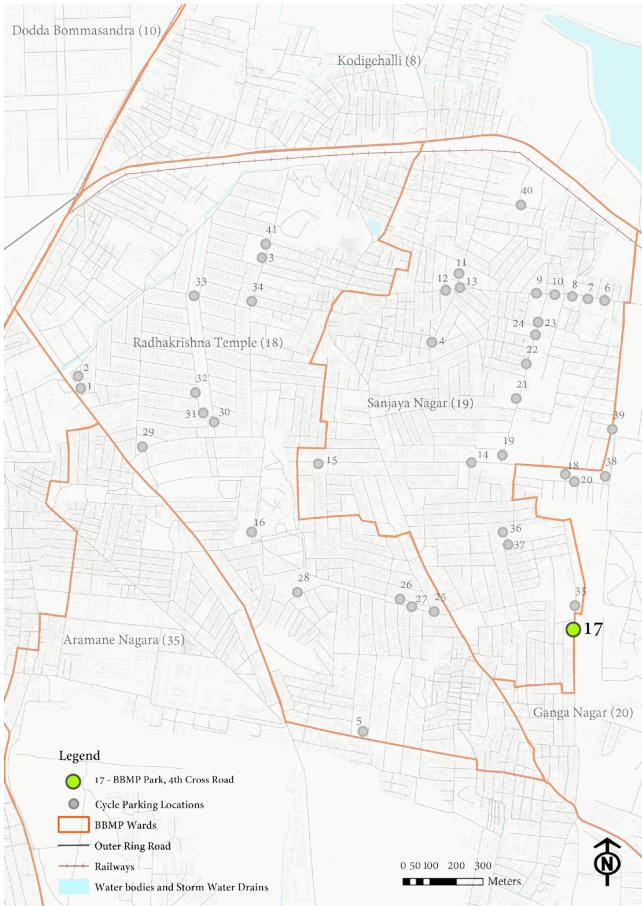
Footpath Width: 1m

Footfall: Medium

Surrounding Activities: Residences, ISRO, Park

Pedestrian space available after placement of stand: Yes





17

Location Name: **4th cross road BBMP park**

Latitude-Longitude: 13.0314712041447/ 77.5809571892023



PROPOSED CYCLE PARKING LOCATION DETAILS

Type of Location: **Footpath**

Cycle Stand Type: **On fence**

Number of Ports/Us: **5 (different design)**

Number of Cycles: **5**

Space Requirement: **7m length (approx.) * 0.4m width**

Land Ownership: **BBMP**

Obstructions: **Yes**

If Yes, description of obstructions: Trees and planters

INFORMATION FOR REFERENCE

Name of the Road: **4th cross road**

Existing Right of Way (ROW): **16m**

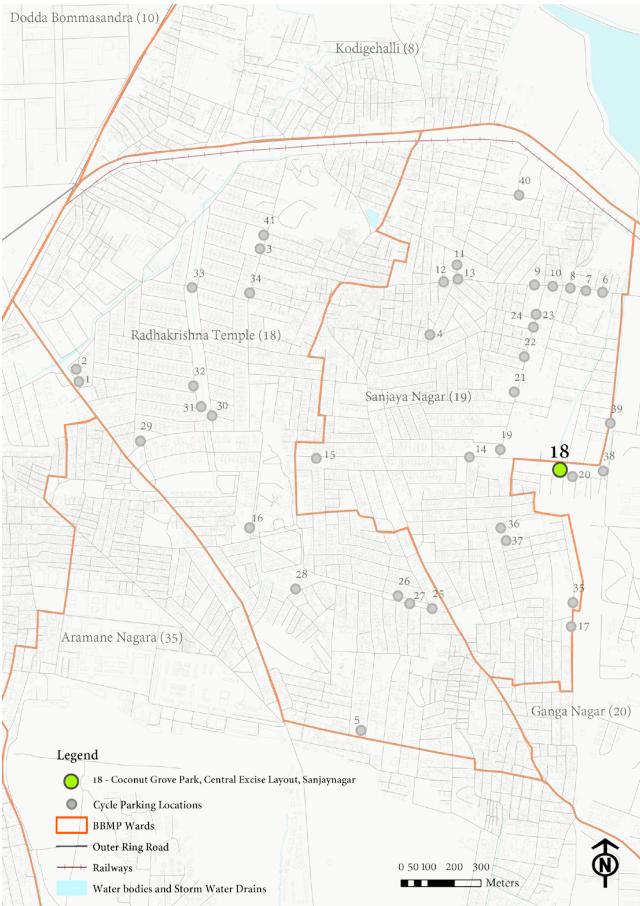
Footpath Width: **3m**

Footfall: **Medium**

Surrounding Activities: **School, Residences, Park**

Pedestrian space available after placement of stand: **Yes**





18

Location Name: **Coconut grove park**

Latitude-Longitude: 13.0363593466048/ 77.5807322189212



PROPOSED CYCLE PARKING LOCATION DETAILS

Type of Location: **Footpath**

Cycle Stand Type: **On fence**

Number of Ports/Us: **8 (different design)**

Number of Cycles: **8**

Space Requirement: **10m length * 0.4m width**

Land Ownership: **BBMP**

Obstructions: **No**

If Yes, description of obstructions: **NA**

INFORMATION FOR REFERENCE

Name of the Road: **1st main road**

Existing Right of Way (ROW): **12m**

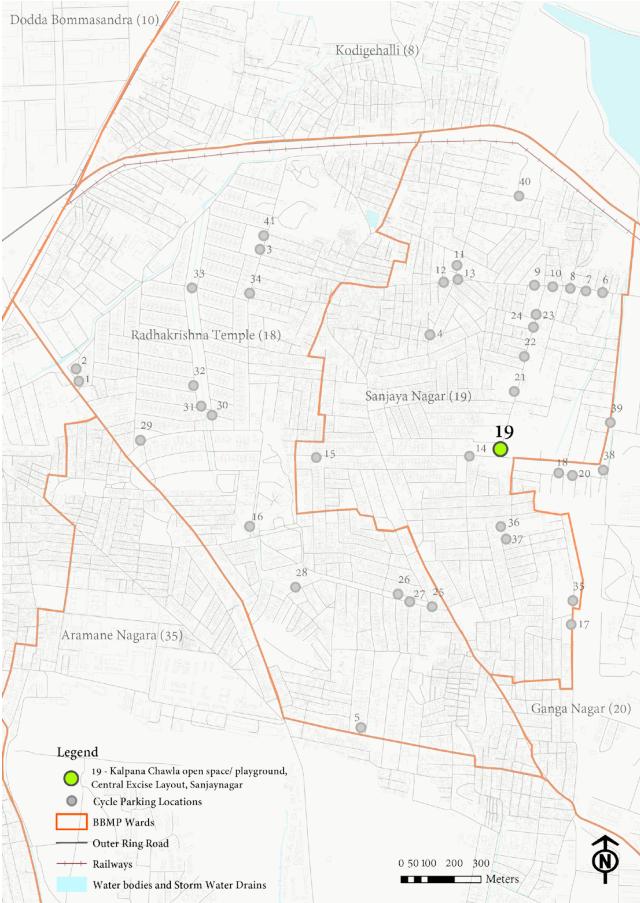
Footpath Width: **1.5m**

Footfall: **Low**

Surrounding Activities: **Residences, Park**

Pedestrian space available after placement of stand: **Yes**





19

Location Name: **Kalpana Chawla open space/ playground**
 Latitude-Longitude: 13.0371827923077/ 77.5785623118281



PROPOSED CYCLE PARKING LOCATION DETAILS

Type of Location: **Footpath**
 Cycle Stand Type: **Parallel**
 Number of Ports/Us: **6**
 Number of Cycles: **12**
 Space Requirement: **21m length * 1m width**

Land Ownership: **BBMP**
 Obstructions: **No**

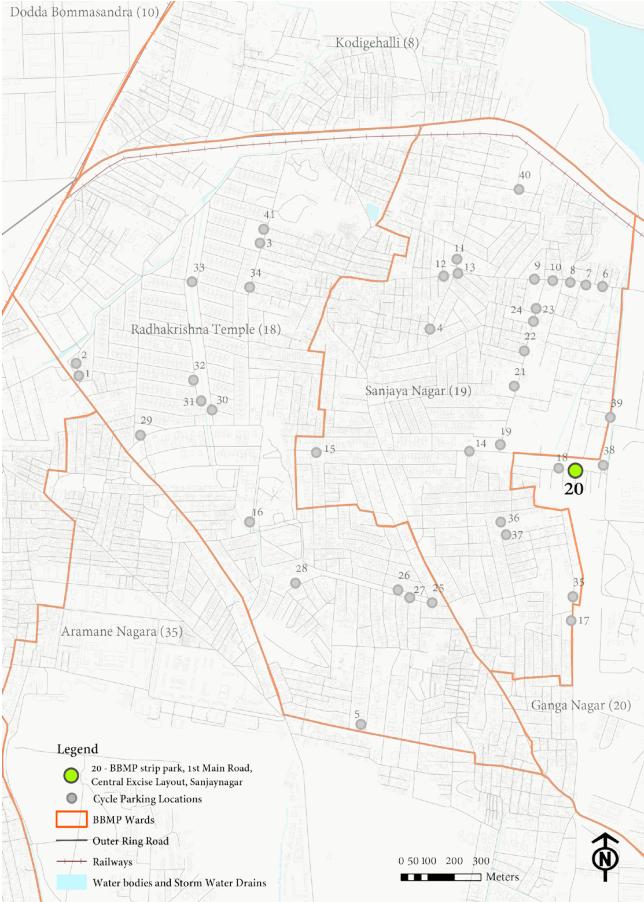
If Yes, description of obstructions: NA

INFORMATION FOR REFERENCE

Name of the Road: **Kalpana Chawla road**
 Existing Right of Way (ROW): **15.5m**
 Footpath Width: **3m**
 Footfall: **Medium**
 Surrounding Activities: **Residences, Playground**
 Pedestrian space available after placement of stand: **Yes**



24



20

Location Name: **BBMP strip park**

Latitude-Longitude: 13.0364181409148/ 77.5808079913259



PROPOSED CYCLE PARKING LOCATION DETAILS

Type of Location: **Footpath**

Cycle Stand Type: **On fence**

Number of Ports/Us: **8 (different design)**

Number of Cycles: **8**

Space Requirement: **10m length (approx.) * 0.4m width**

Land Ownership: **BBMP**

Obstructions: **No**

If Yes, description of obstructions: **NA**

INFORMATION FOR REFERENCE

Name of the Road: **1st main road**

Existing Right of Way (ROW): **12m**

Footpath Width: **1.5m (drain)**

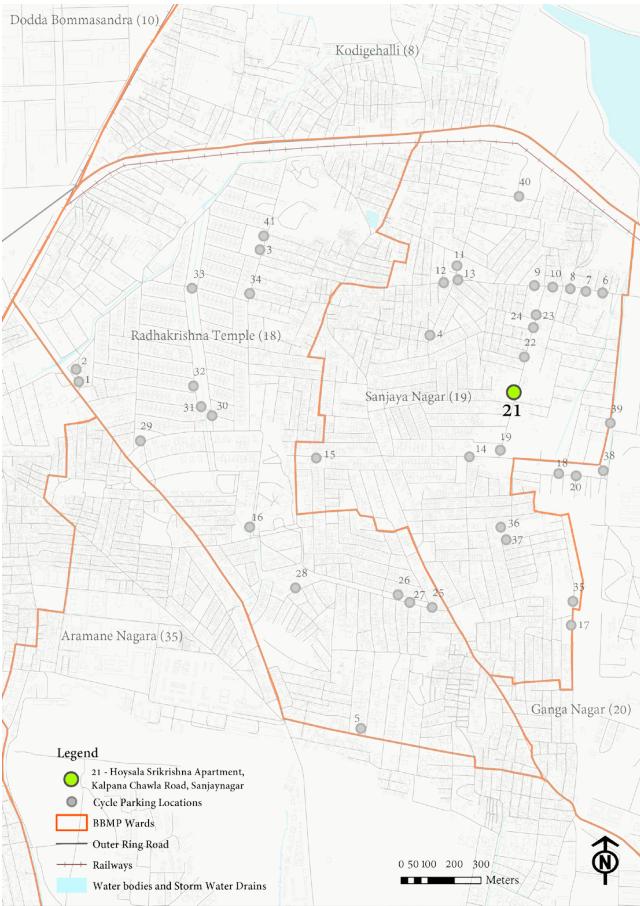
Footfall: **Low**

Surrounding Activities: **Residences, Park**

Pedestrian space available after placement of stand: **Yes**



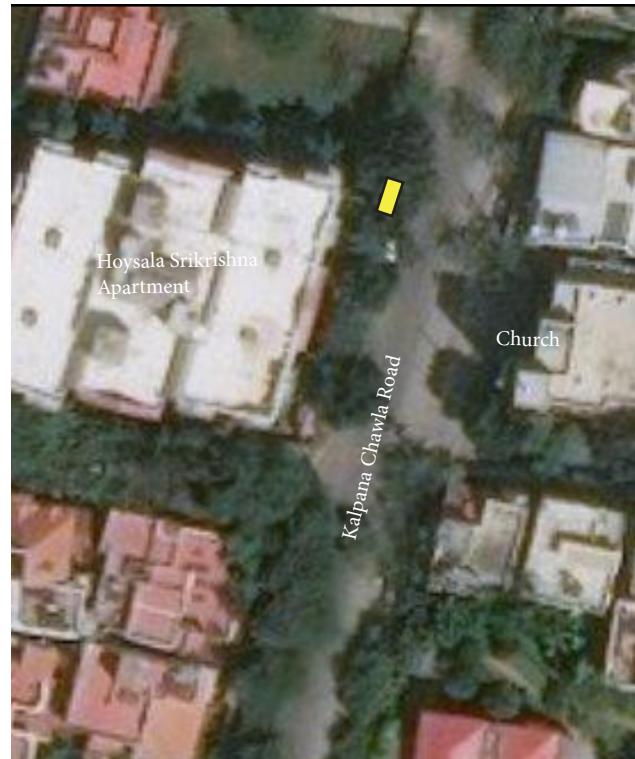
25



21

Location Name: **Hoysala Srikrishna apartment**

Latitude-Longitude: 13.0390338203043/ 77.5790226459503



PROPOSED CYCLE PARKING LOCATION DETAILS

Type of Location: **Shoulder**

Cycle Stand Type: **Perpendicular**

Number of Ports/Us: 5

Number of Cycles: 10

Space Requirement: 5m length * 2m width

Land Ownership: **BBMP**

Obstructions: **No**

If Yes, description of obstructions: NA

INFORMATION FOR REFERENCE

Name of the Road: Kalpana Chawla road

Existing Right of Way (ROW): 15.5m

Footpath Width: 3m

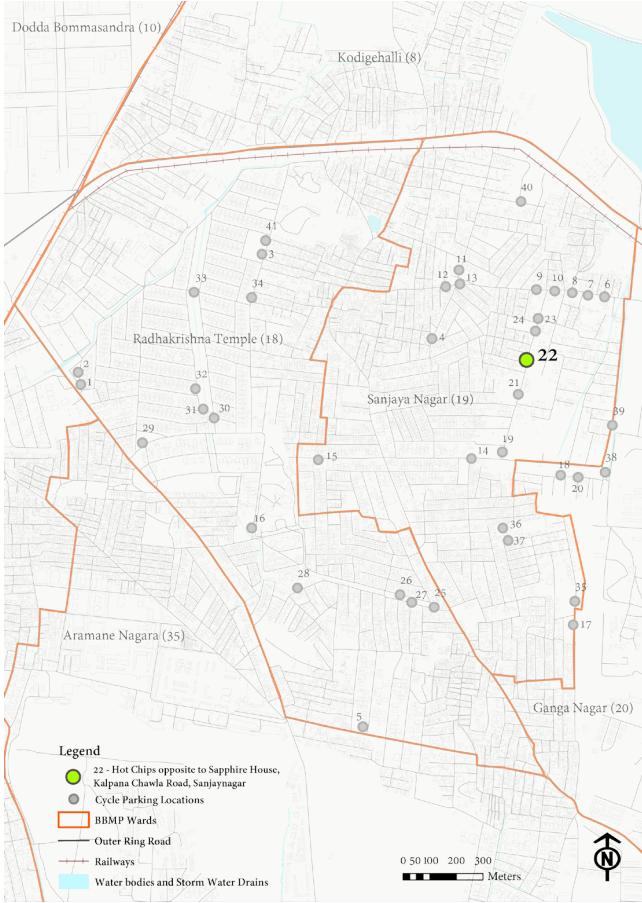
Footfall: Medium

Surrounding Activities: Residences, Commercial

Pedestrian space available after placement of stand: Yes

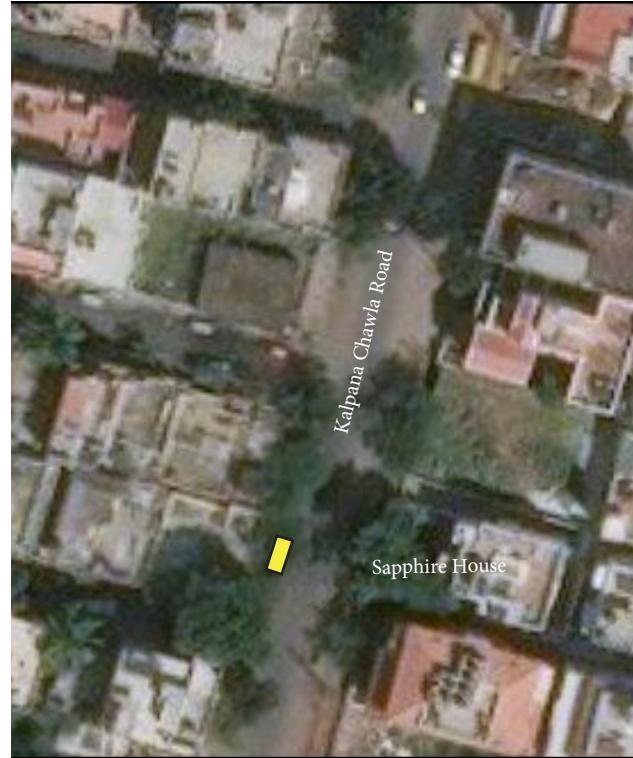


26



22

Location Name: Hot chips shop (opposite to Sapphire house)
 Latitude-Longitude: 13.0401691890151/ 77.5793639570475



PROPOSED CYCLE PARKING LOCATION DETAILS

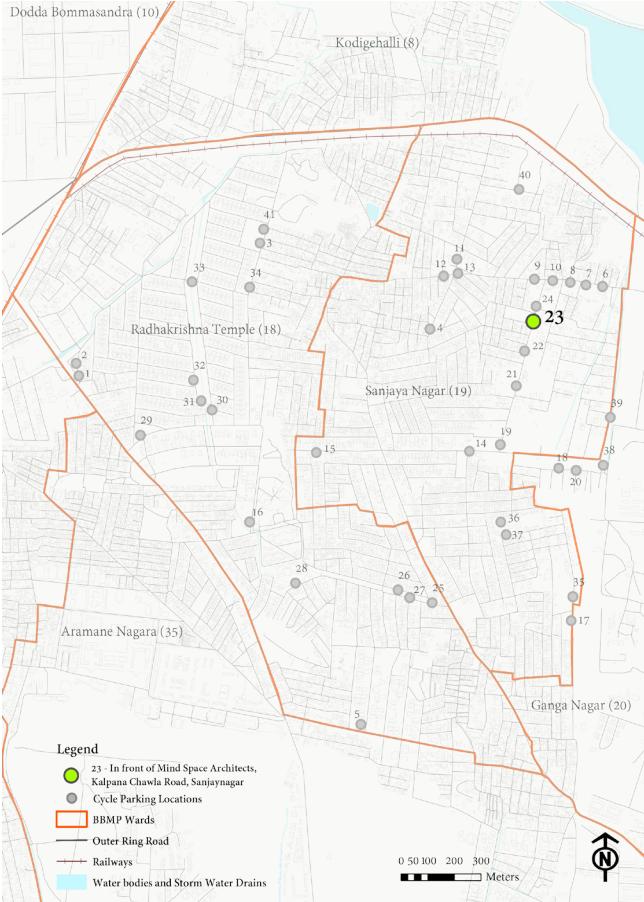
Type of Location: **Shoulder**
 Cycle Stand Type: **Perpendicular**
 Number of Ports/Us: 5
 Number of Cycles: 10
 Space Requirement: **5m length * 2m width**
 Land Ownership: **BBMP**
 Obstructions: **No**

If Yes, description of obstructions: NA

INFORMATION FOR REFERENCE

Name of the Road: Kalpana Chawla road
 Existing Right of Way (ROW): 15.5m
 Footpath Width: 3m
 Footfall: Medium
 Surrounding Activities: School, Residences, Commercial
 Pedestrian space available after placement of stand: Yes





23

Location Name: In front of Mind Space Architects

Latitude-Longitude: 13.0411239268523/ 77.5796690583229



PROPOSED CYCLE PARKING LOCATION DETAILS

Type of Location: Shoulder

Cycle Stand Type: Perpendicular

Number of Ports/Us: 5

Number of Cycles: 10

Space Requirement: 5m length * 2m width

Land Ownership: BBMP

Obstructions: Yes

If Yes, description of obstructions: Light pole, planting

INFORMATION FOR REFERENCE

Name of the Road: Kalpana Chawla road

Existing Right of Way (ROW): 15.5m

Footpath Width: 3m

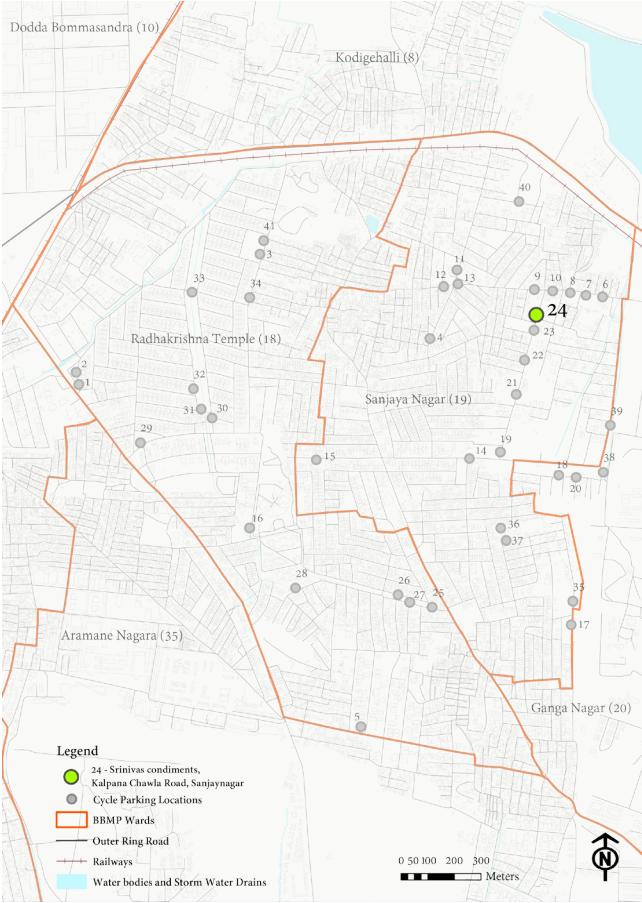
Footfall: Medium

Surrounding Activities: School, Residences, Commercial

Pedestrian space available after placement of stand: No



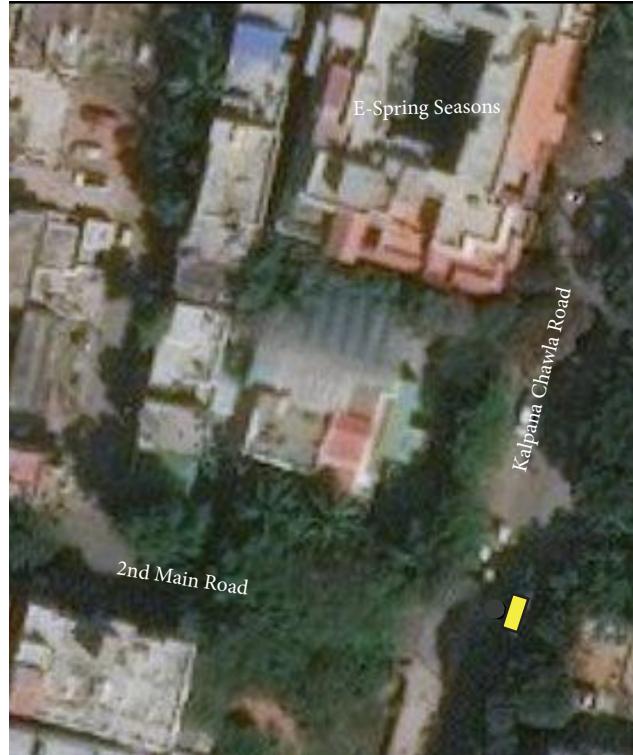
28



24

Location Name: **Srinivas condiments**

Latitude-Longitude: 13.0414286713389/ 77.5797451660037



PROPOSED CYCLE PARKING LOCATION DETAILS

Type of Location: **Shoulder**

Cycle Stand Type: **Perpendicular**

Number of Ports/Us: **5**

Number of Cycles: **10**

Space Requirement: **5m length * 2m width**

Land Ownership: **BBMP**

Obstructions: **No**

If Yes, description of obstructions: **NA**

INFORMATION FOR REFERENCE

Name of the Road: **Kalpana Chawla road**

Existing Right of Way (ROW): **15.5m**

Footpath Width: **3m**

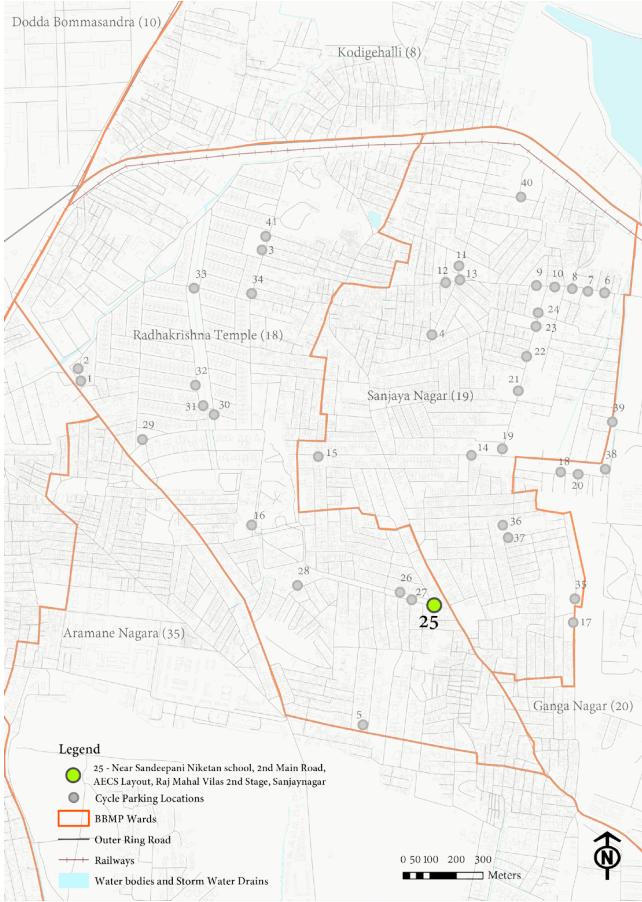
Footfall: **Medium**

Surrounding Activities: **Residences, Commercial**

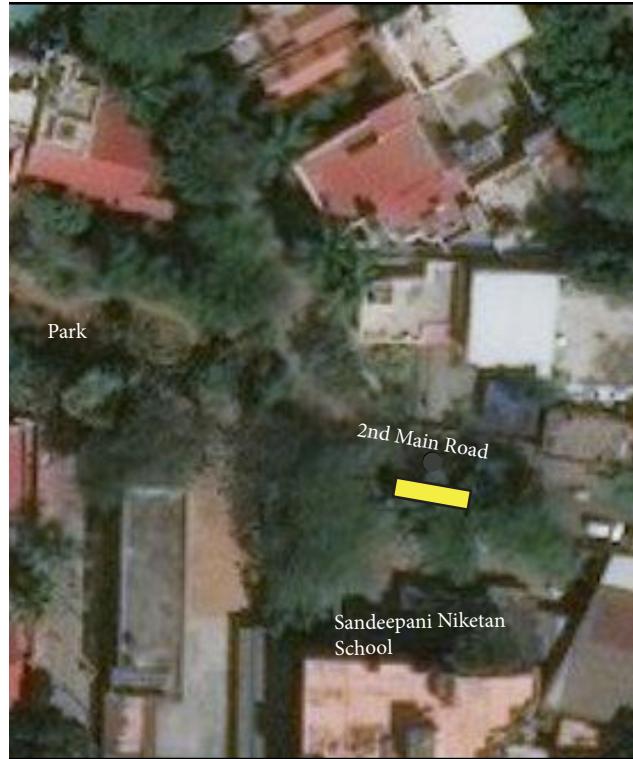
Pedestrian space available after placement of stand: **Yes**



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25



PROPOSED CYCLE PARKING LOCATION DETAILS

Type of Location: **Shoulder**

Cycle Stand Type: **Perpendicular**

Number of Ports/Us: **10**

Number of Cycles: **20**

Space Requirement: **10m length * 2m width**

Land Ownership: **BBMP**

Obstructions: **No**

If Yes, description of obstructions: **NA**

INFORMATION FOR REFERENCE

Name of the Road: **2nd main road**

Existing Right of Way (ROW): **10m**

Footpath Width: **0m**

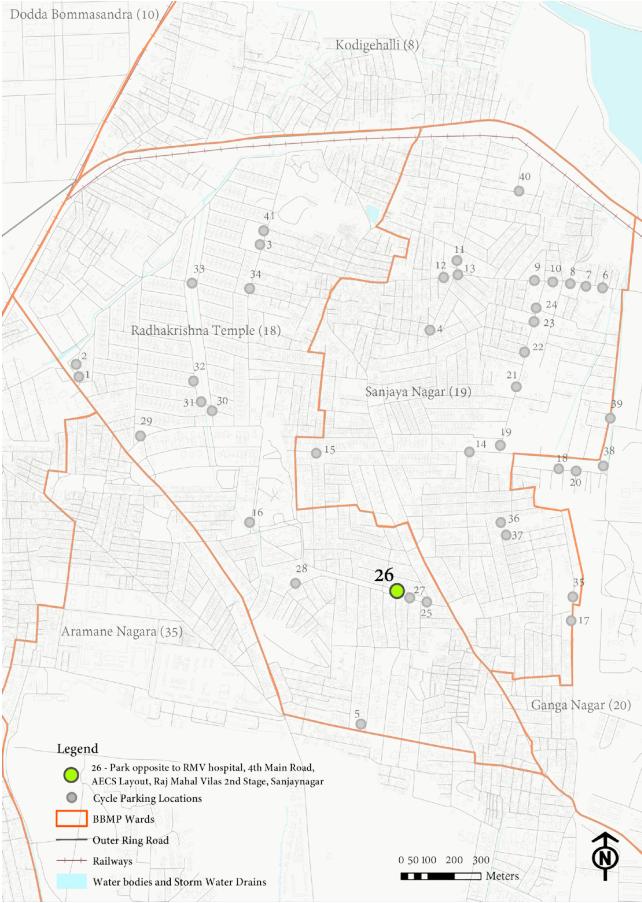
Footfall: **High**

Surrounding Activities: **School, Residences**

Pedestrian space available after placement of stand: **Yes**



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26

Location Name: Opposite Sandeepani School (1)
Latitude-Longitude: 13.0324772580601/ 77.575118355453



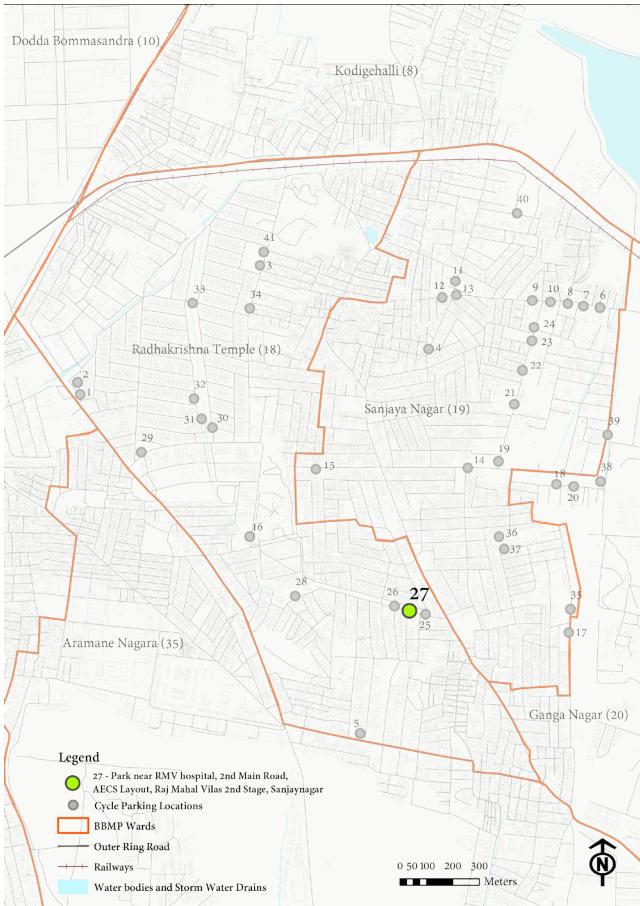
PROPOSED CYCLE PARKING LOCATION DETAILS

Type of Location: **Footpath**
 Cycle Stand Type: **On fence**
 Number of Ports/Us: 5
 Number of Cycles: 5
 Space Requirement: **7m length (approx.) * 0.4m width**
 Land Ownership: **BBMP**
 Obstructions: **Yes**
 If Yes, description of obstructions: Trees, garbage

INFORMATION FOR REFERENCE

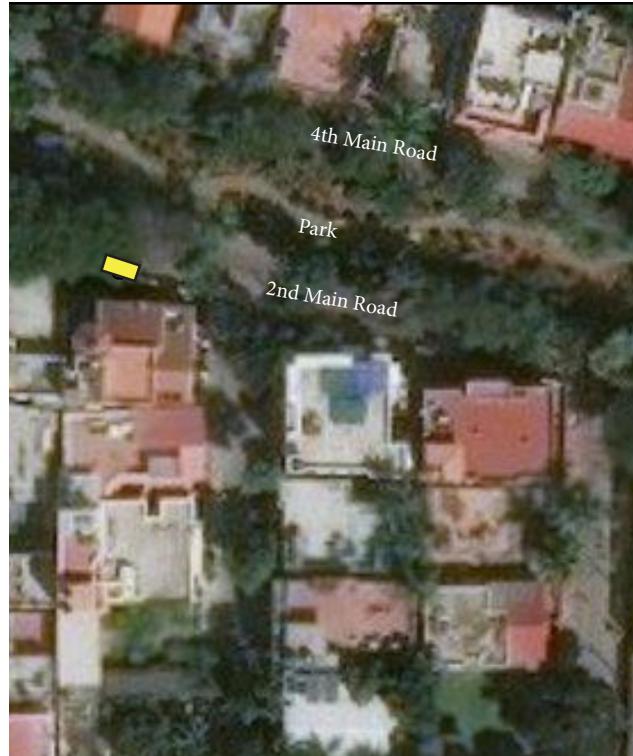
Name of the Road: 4th main road
 Existing Right of Way (ROW): 10m
 Footpath Width: 1.5m
 Footfall: Medium
 Surrounding Activities: School, Residences, Park
 Pedestrian space available after placement of stand: No





27

Location Name: Opposite Sandeepani School (2)
Latitude-Longitude: 13.032357/ 77.574913



PROPOSED CYCLE PARKING LOCATION DETAILS

Type of Location: **Footpath**
 Cycle Stand Type: **Perpendicular**
 Number of Ports/Us: 5
 Number of Cycles: 10
 Space Requirement: **5m length * 2m width**
 Land Ownership: **BBMP**
 Obstructions: **Yes**

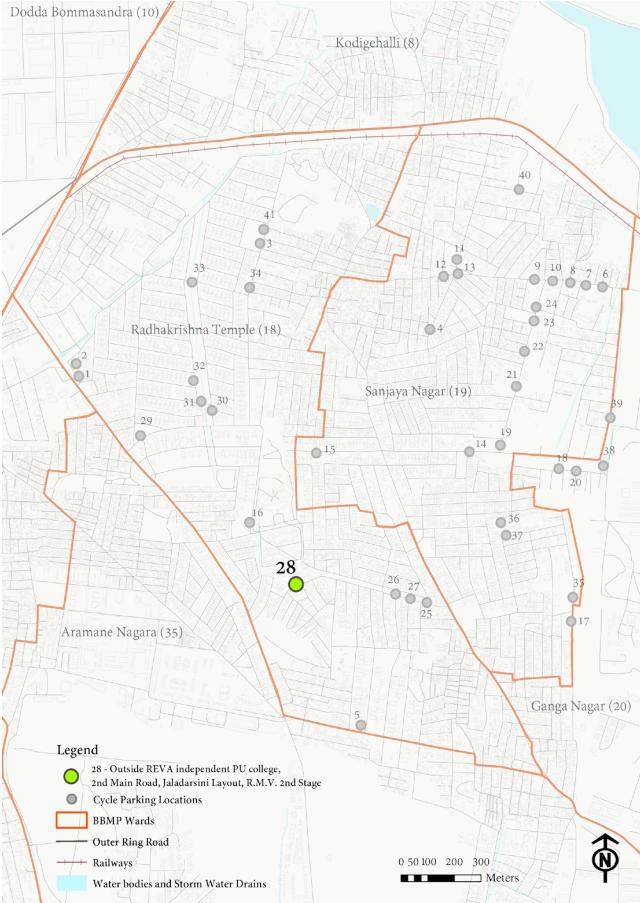
If Yes, description of obstructions: NA

INFORMATION FOR REFERENCE

Name of the Road:
 Existing Right of Way (ROW): 15m
 Footpath Width: 2m
 Footfall: High
 Surrounding Activities: School, Residences, Park
 Pedestrian space available after placement of stand:

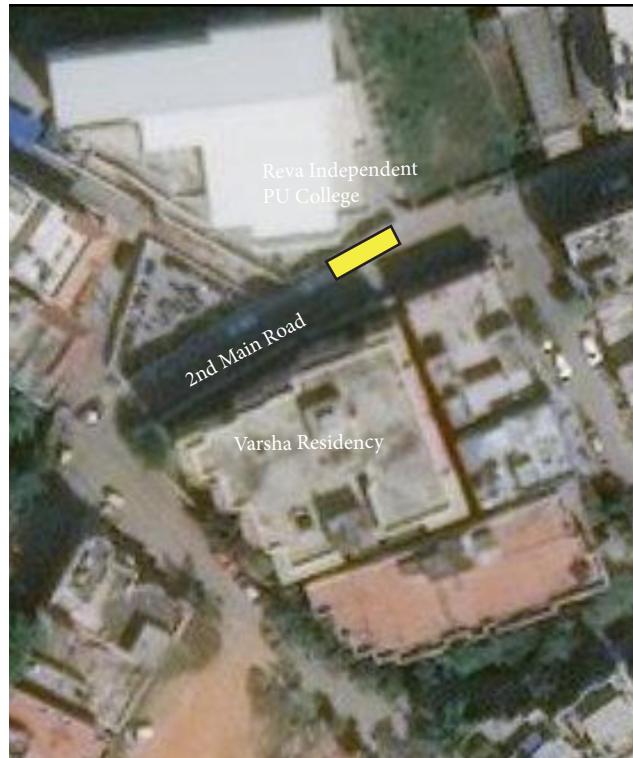


32



28

Location Name: **Outside REVA Independent PU college**
Latitude-Longitude: 13.0326987200288/ 77.5716626644135



PROPOSED CYCLE PARKING LOCATION DETAILS

Type of Location: **Shoulder**
Cycle Stand Type: **Perpendicular**
Number of Ports/Us: **8**
Number of Cycles: **16**
Space Requirement: **8m length * 2m width**

Land Ownership: **BBMP**
Obstructions: **No**

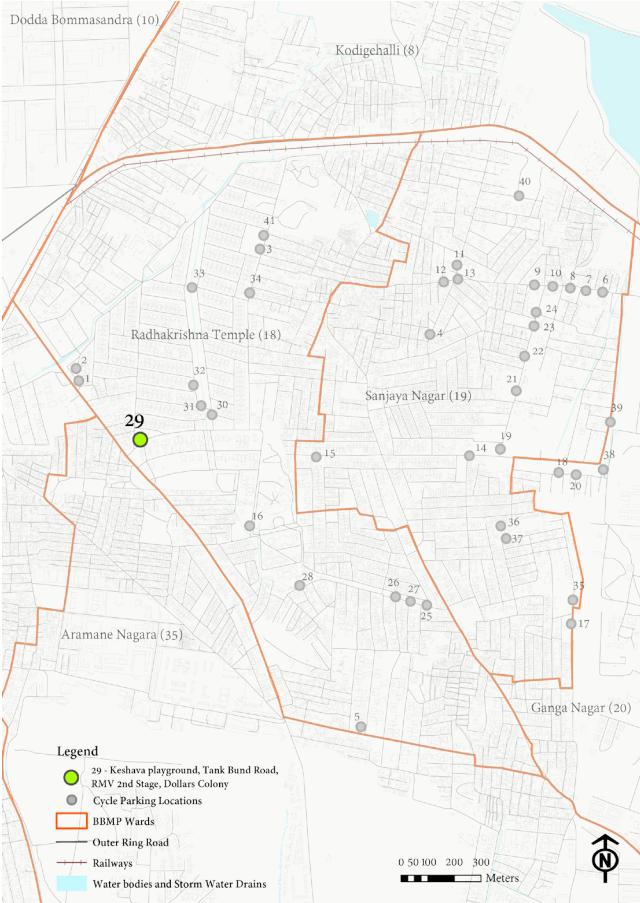
If Yes, description of obstructions: NA

INFORMATION FOR REFERENCE

Name of the Road: **2nd main road**
Existing Right of Way (ROW): **8m**
Footpath Width: **0m**
Footfall: **Medium**
Surrounding Activities: **College, Residences**
Pedestrian space available after placement of stand: **No**



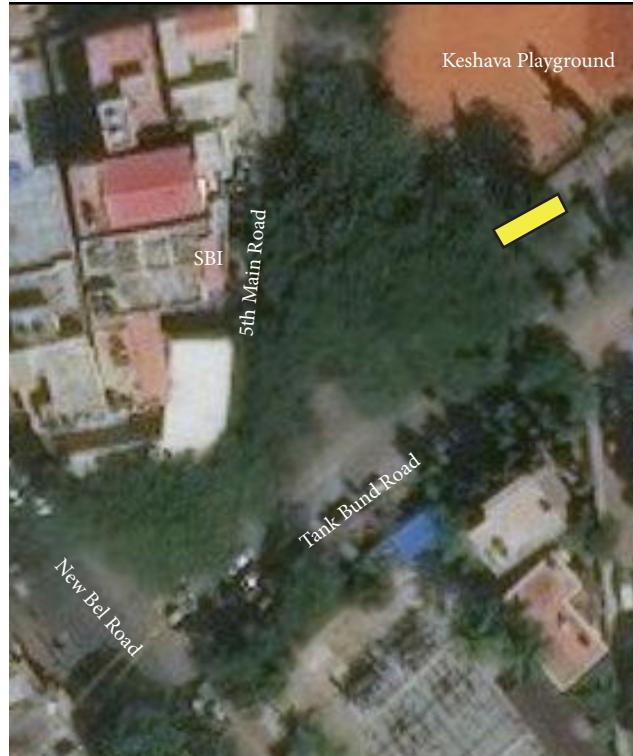
33



29

Location Name: **Keshava playground**

Latitude-Longitude: 13.0374610843256/ 77.5664397329092



PROPOSED CYCLE PARKING LOCATION DETAILS

Type of Location: **Shoulder**

Cycle Stand Type: **Perpendicular**

Number of Ports/Us: **10**

Number of Cycles: **20**

Space Requirement: **10m length * 2m width**

Land Ownership: **BBMP**

Obstructions: **No**

If Yes, description of obstructions: **NA**

INFORMATION FOR REFERENCE

Name of the Road: **Tank Bund road**

Existing Right of Way (ROW): **30m**

Footpath Width: **2m**

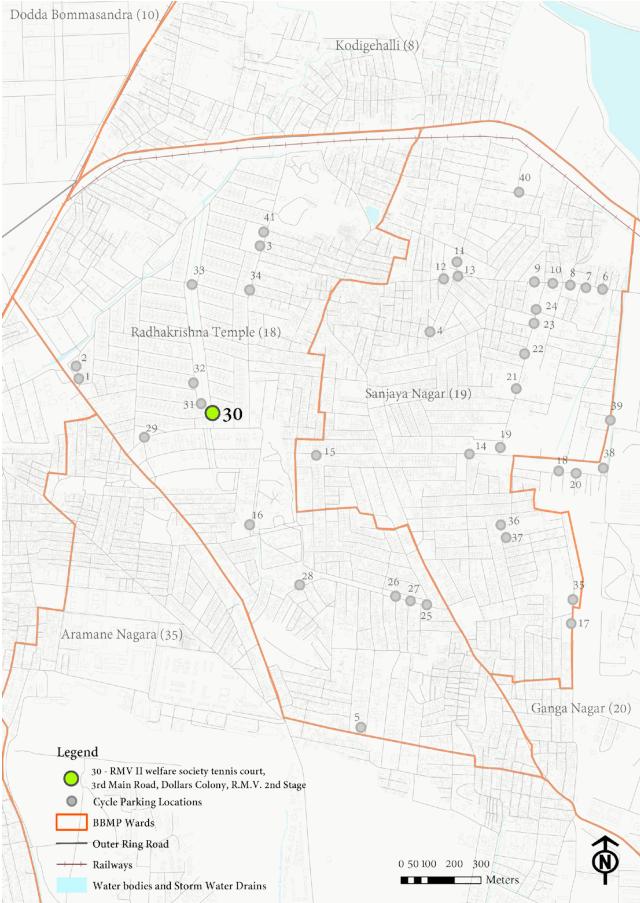
Footfall: **High**

Surrounding Activities: **Residences, Commercial, Park**

Pedestrian space available after placement of stand: **Yes**



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30

Location Name: **RMV II welfare society tennis court**

Latitude-Longitude: 13.0383008579892/ 77.5687501206994



PROPOSED CYCLE PARKING LOCATION DETAILS

Type of Location: **Shoulder**

Cycle Stand Type: **Angular**

Number of Ports/U's: **10**

Number of Cycles: **20**

Space Requirement: **12m length * 1.8m width**

Land Ownership: **BBMP**

Obstructions: **No**

If Yes, description of obstructions: **NA**

INFORMATION FOR REFERENCE

Name of the Road: **3rd main road (tank bund road perpendicular)**

Existing Right of Way (ROW): **12m**

Footpath Width: **1.5m**

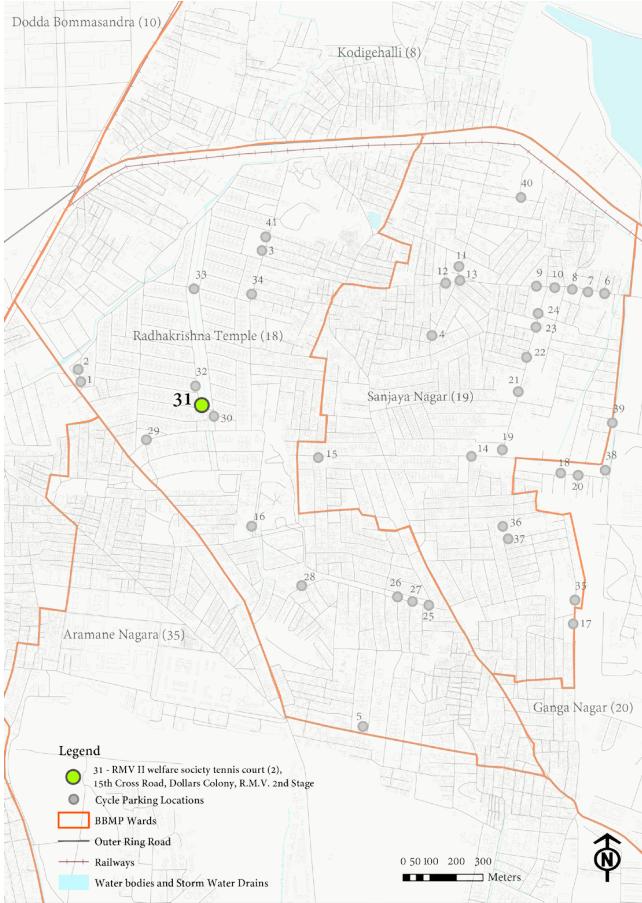
Footfall: **Medium**

Surrounding Activities: **Club, Residences, Park**

Pedestrian space available after placement of stand: **Yes**

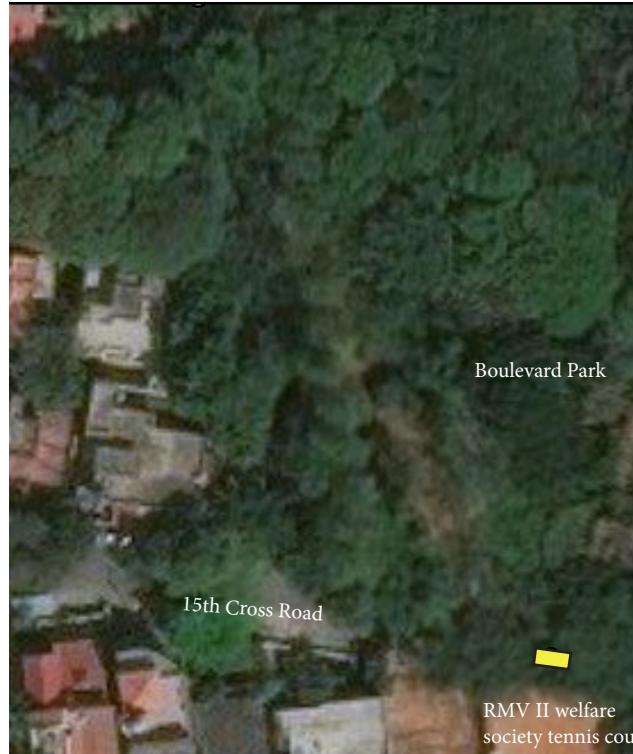


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31

Location Name: **RMV II welfare society tennis court (2)**
Latitude-Longitude: 13.0384707068473/ 77.5686414912343



PROPOSED CYCLE PARKING LOCATION DETAILS

Type of Location: **Shoulder**
Cycle Stand Type: **Perpendicular**
Number of Ports/Us: 5
Number of Cycles: 10
Space Requirement: **5m length * 2m width**

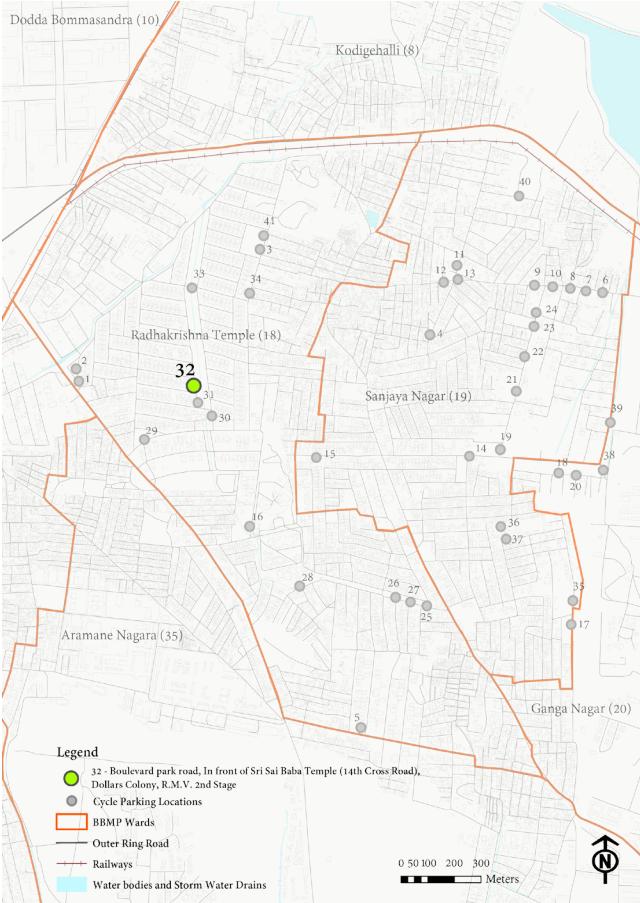
Land Ownership: **BBMP**
Obstructions: **Yes**

If Yes, description of obstructions: Trees, garbage

INFORMATION FOR REFERENCE

Name of the Road: 15th cross road
Existing Right of Way (ROW): 12m
Footpath Width: 1.5m
Footfall: Medium
Surrounding Activities: Residences, Park, Tennis court
Pedestrian space available after placement of stand: No

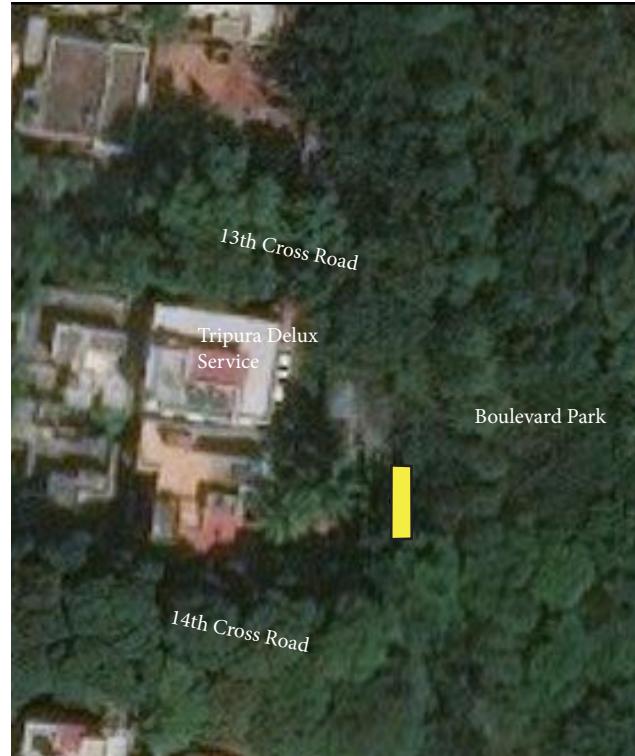




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Location Name: **Boulevard park road**

Latitude-Longitude: 13.0392294725337/ 77.5682270899415



PROPOSED CYCLE PARKING LOCATION DETAILS

Type of Location: **Shoulder**

Cycle Stand Type: **Perpendicular**

Number of Ports/U's: **10**

Number of Cycles: **20**

Space Requirement: **10m length * 2m width**

Land Ownership: **BBMP**

Obstructions: **Yes**

If Yes, description of obstructions: Tree

INFORMATION FOR REFERENCE

Name of the Road: Not available

Existing Right of Way (ROW): 12m

Footpath Width: 1.5m

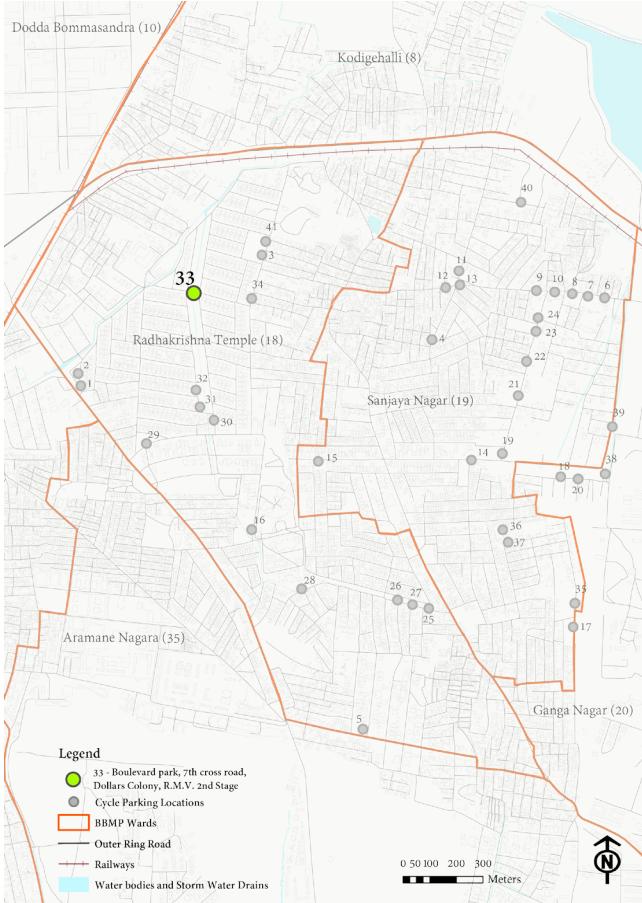
Footfall: Medium

Surrounding Activities: Residences, Park

Pedestrian space available after placement of stand: Yes



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33

Location Name: Boulevard park (7th cross road)
Latitude-Longitude: 13.0423892836035/ 77.5681791454554



PROPOSED CYCLE PARKING LOCATION DETAILS

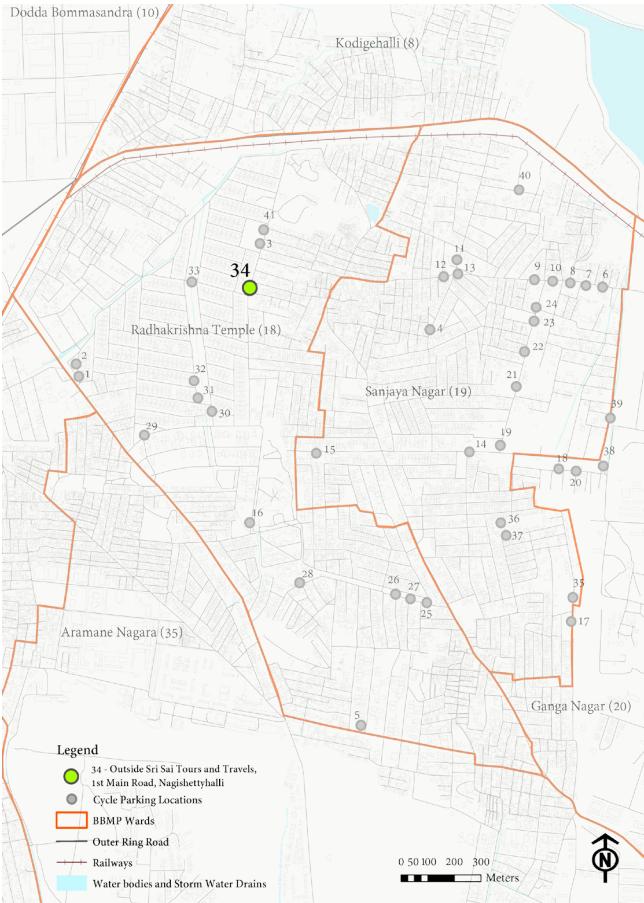
Type of Location: **Footpath**
 Cycle Stand Type: **Perpendicular**
 Number of Ports/Us: **10 (divided apart from the nala)**
 Number of Cycles: **20**
 Space Requirement: **10m length * 2m width**
 Land Ownership: **BBMP**
 Obstructions: **Yes**
 If Yes, description of obstructions: Trees

INFORMATION FOR REFERENCE

Name of the Road: **7th cross road**
 Existing Right of Way (ROW): **15m**
 Footpath Width: **5m**
 Footfall: **Medium**
 Surrounding Activities: Residences, Park
 Pedestrian space available after placement of stand: **Yes**



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34

Location Name: **Outside Sri Sai Tours and Travels**

Latitude-Longitude: 13.0422187841811/ 77.5701173767447



PROPOSED CYCLE PARKING LOCATION DETAILS

Type of Location: **Footpath**

Cycle Stand Type: **Angular**

Number of Ports/Us: **5**

Number of Cycles: **10**

Space Requirement: **5m length * 2m width**

Land Ownership: **BBMP**

Obstructions: **Yes**

If Yes, description of obstructions: Uneven footpaths

INFORMATION FOR REFERENCE

Name of the Road: **1st main road**

Existing Right of Way (ROW): **12m**

Footpath Width: **3m**

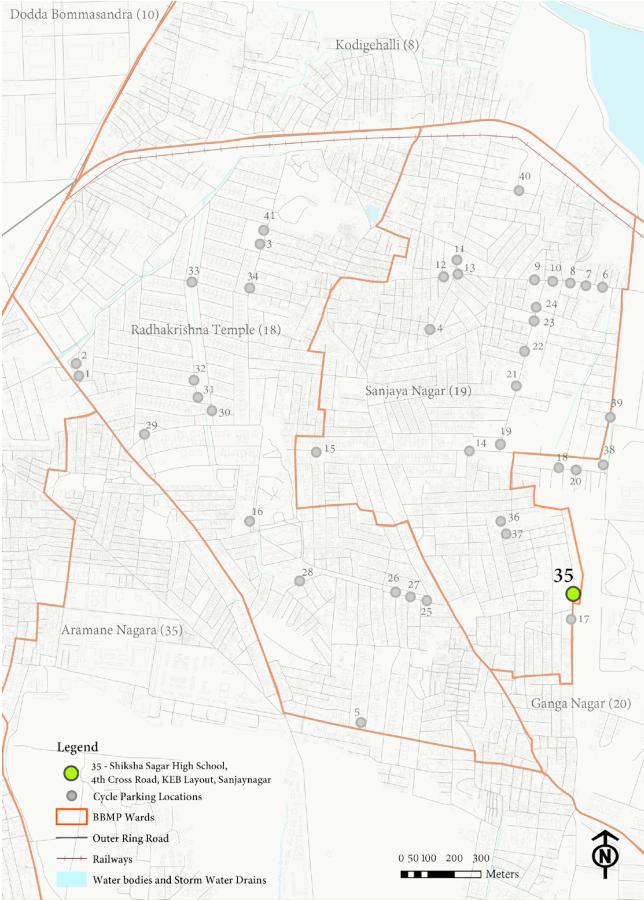
Footfall: **Medium**

Surrounding Activities: **Residences, Commercial**

Pedestrian space available after placement of stand: **Yes**



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35

Location Name: **Shiksha Sagar High School**

Latitude-Longitude: 13.032265268468/ 77.5810001045465



PROPOSED CYCLE PARKING LOCATION DETAILS

Type of Location: **Footpath**

Cycle Stand Type: **Perpendicular**

Number of Ports/Us: **10**

Number of Cycles: **20**

Space Requirement: **10m length * 2m width**

Land Ownership: **BBMP**

Obstructions: **No**

If Yes, description of obstructions: **NA**

INFORMATION FOR REFERENCE

Name of the Road: **4th Cross Road**

Existing Right of Way (ROW): **15m**

Footpath Width: **0m**

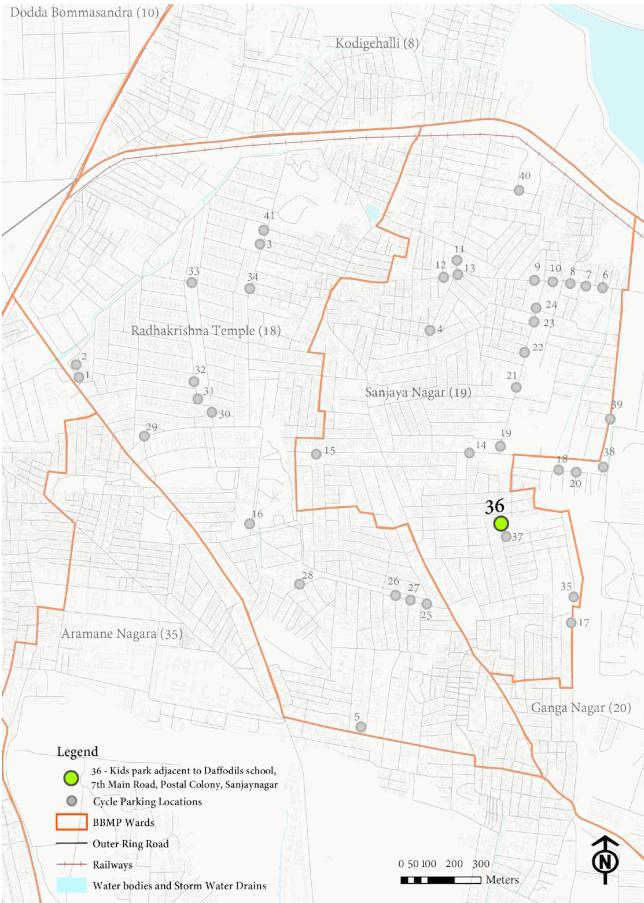
Footfall: **Medium**

Surrounding Activities: **School, Residences**

Pedestrian space available after placement of stand: **Yes**



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36

Location Name: Kids park adjacent to Daffodils school
 Latitude-Longitude: 13.0343142758286/ 77.5788003578782



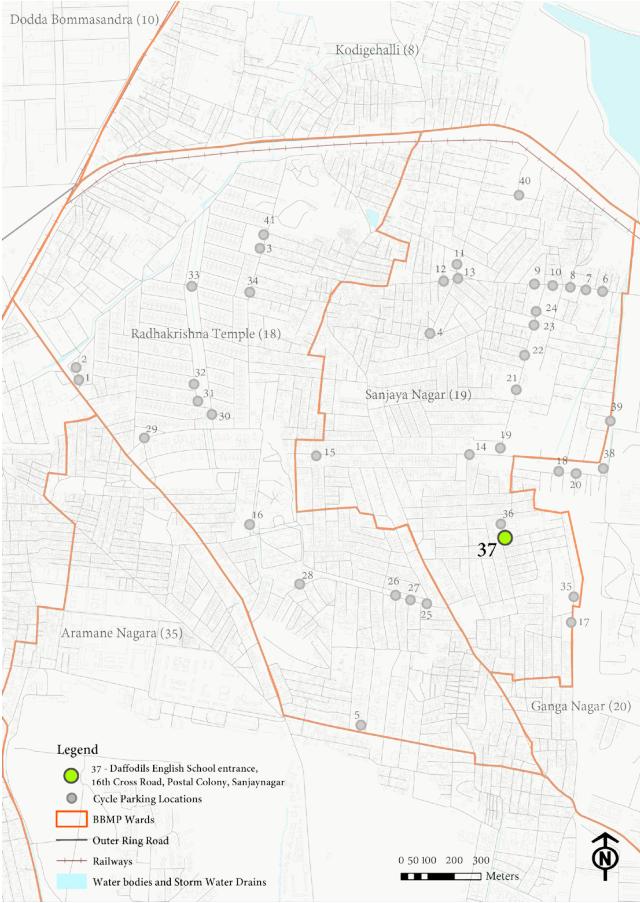
PROPOSED CYCLE PARKING LOCATION DETAILS

Type of Location: **Footpath**
 Cycle Stand Type: **On fence**
 Number of Ports/Us: 5
 Number of Cycles: 5
 Space Requirement: **7m length (approx.) * 0.4m width**
 Land Ownership: **BBMP**
 Obstructions: **Yes**
 If Yes, description of obstructions: NA

INFORMATION FOR REFERENCE

Name of the Road: 7th main road
 Existing Right of Way (ROW): 9m
 Footpath Width: 1m
 Footfall: Medium
 Surrounding Activities: School, Residences, Park
 Pedestrian space available after placement of stand: Yes

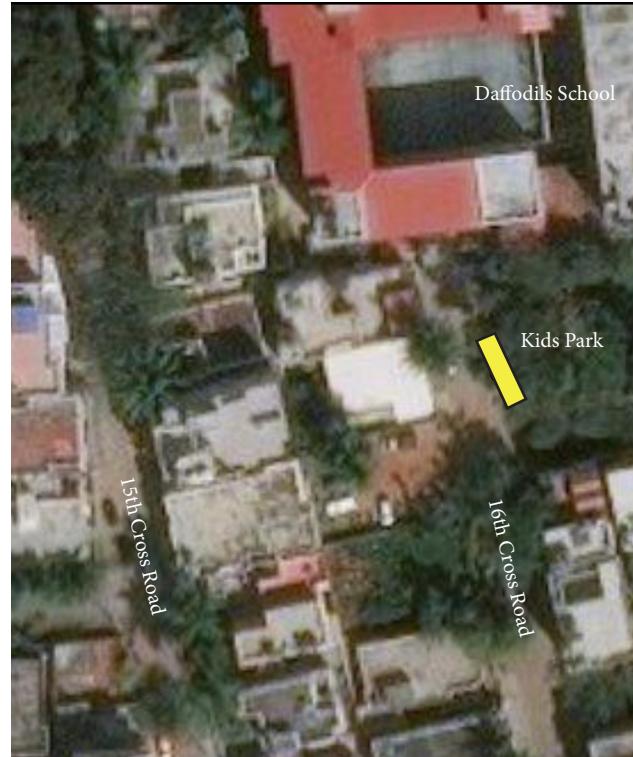




37

Location Name: **Daffodils English School entrance**

Latitude-Longitude: 13.0342901046307/ 77.5785458832979



PROPOSED CYCLE PARKING LOCATION DETAILS

Type of Location: **Shoulder**

Cycle Stand Type: **Perpendicular**

Number of Ports/Us: **10**

Number of Cycles: **20**

Space Requirement: **5m length * 2m width**

Land Ownership: **BBMP**

Obstructions: **No**

If Yes, description of obstructions: **NA**

INFORMATION FOR REFERENCE

Name of the Road: **16th cross road**

Existing Right of Way (ROW): **9m**

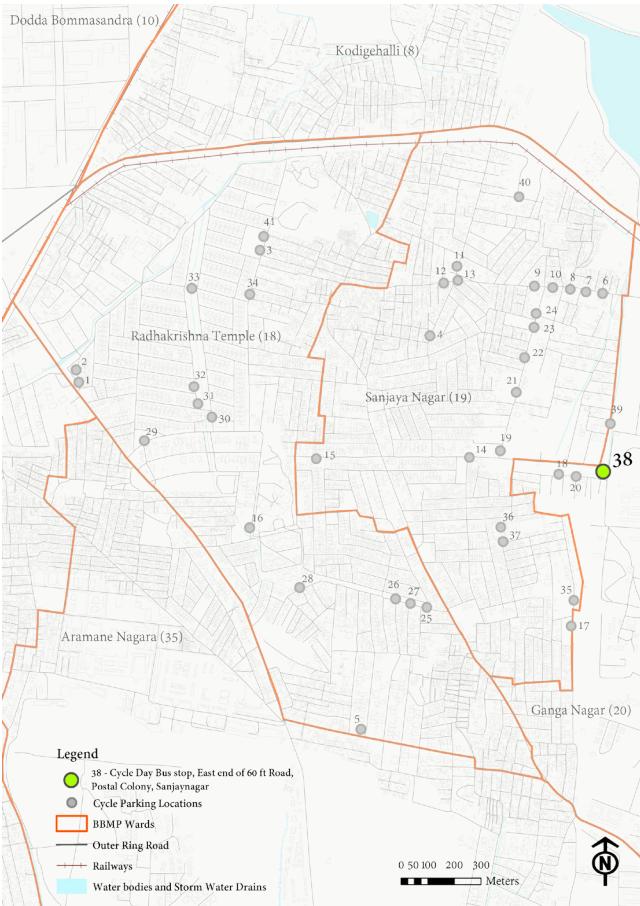
Footpath Width: **0m**

Footfall: **High**

Surrounding Activities: **School, Residences, Park**

Pedestrian space available after placement of stand: **No**

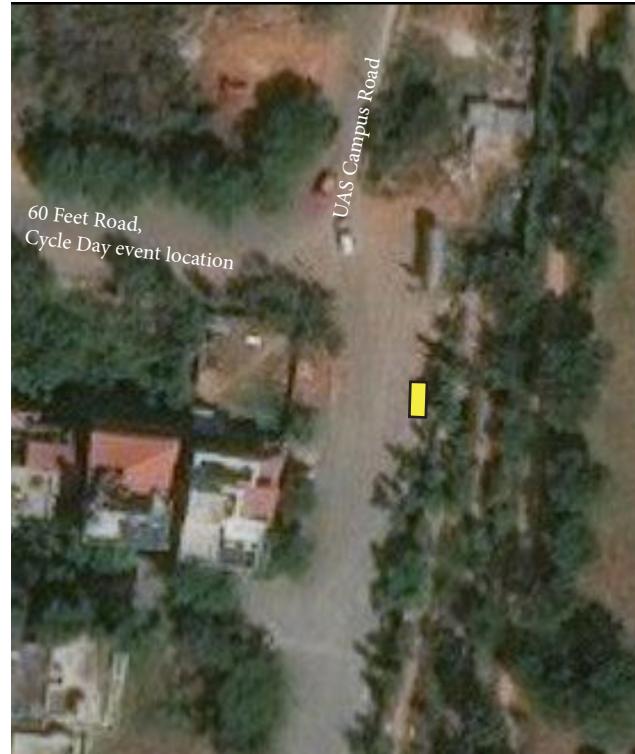




38

Location Name: **Cycle Day Bus stop**

Latitude-Longitude: 13.0364949001318/ 77.5820230320096



PROPOSED CYCLE PARKING LOCATION DETAILS

Type of Location: **Shoulder**

Cycle Stand Type: **Perpendicular**

Number of Ports/Us: **5**

Number of Cycles: **10**

Space Requirement: **5m length * 2m width**

Land Ownership: **BBMP**

Obstructions: **No**

If Yes, description of obstructions: **NA**

INFORMATION FOR REFERENCE

Name of the Road: **60 ft road dead end**

Existing Right of Way (ROW): **15m**

Footpath Width: **1m**

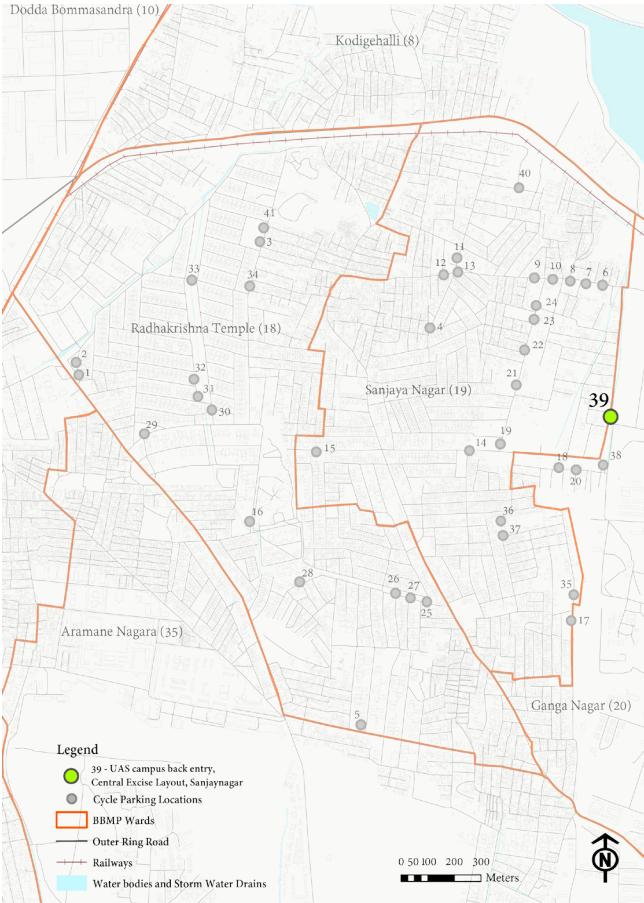
Footfall: **Low**

Surrounding Activities: **University, Residences**

Pedestrian space available after placement of stand: **Yes**



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39

Location Name: **UAS campus (back entry)**

Latitude-Longitude: 13.0380294262067/ 77.5822708010674



PROPOSED CYCLE PARKING LOCATION DETAILS

Type of Location: **Shoulder**

Cycle Stand Type: **Perpendicular**

Number of Ports/Us: **10**

Number of Cycles: **20**

Space Requirement: **10m length * 2m width**

Land Ownership: **BBMP**

Obstructions: **No**

If Yes, description of obstructions: **NA**

INFORMATION FOR REFERENCE

Name of the Road: UAS campus road towards 60ft road

Existing Right of Way (ROW): **15m**

Footpath Width: **1m**

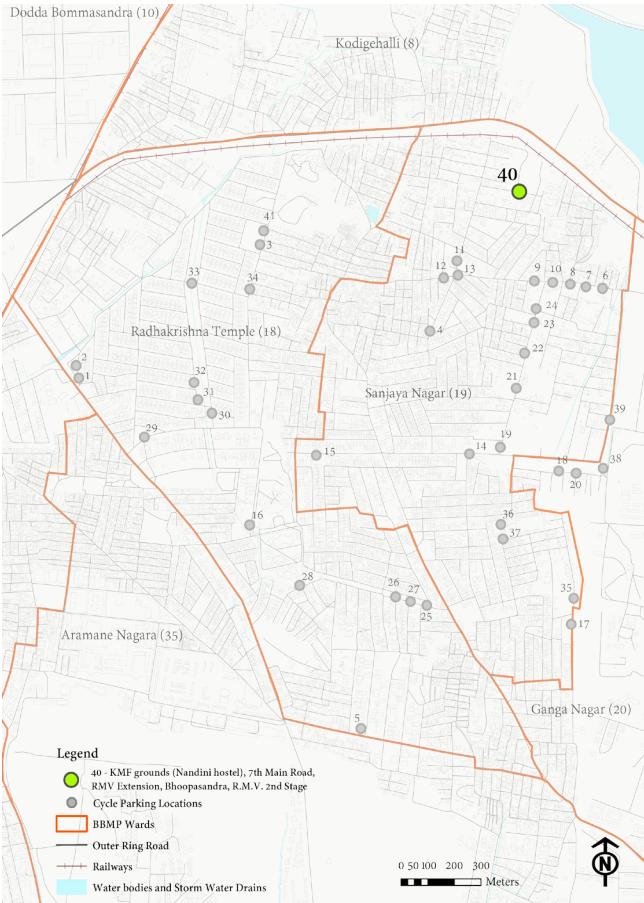
Footfall: **Medium**

Surrounding Activities: University, Residences

Pedestrian space available after placement of stand: **Yes**



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40

Location Name: **KMF grounds (Nandini hostel)**

Latitude-Longitude: 13.0453671252509/ 77.5791912898421



PROPOSED CYCLE PARKING LOCATION DETAILS

Type of Location: **Shoulder**

Cycle Stand Type: **Perpendicular**

Number of Ports/U's: **10**

Number of Cycles: **20**

Space Requirement: **10m length * 2m width**

Land Ownership: **BBMP**

Obstructions: **No**

If Yes, description of obstructions: **NA**

INFORMATION FOR REFERENCE

Name of the Road: **7th main road**

Existing Right of Way (ROW): **15m**

Footpath Width: **1m**

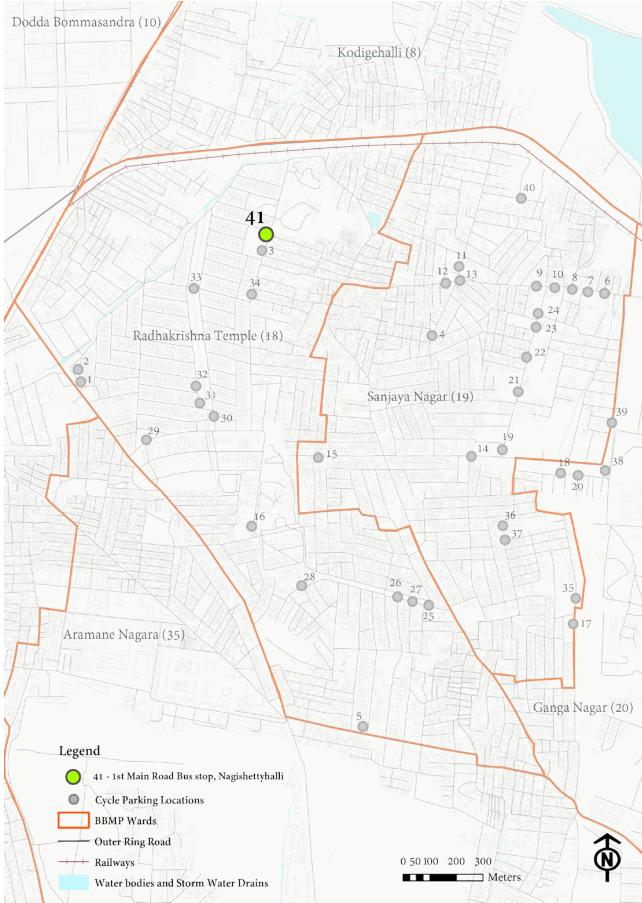
Footfall: **Low**

Surrounding Activities: **Residences, Hostel**

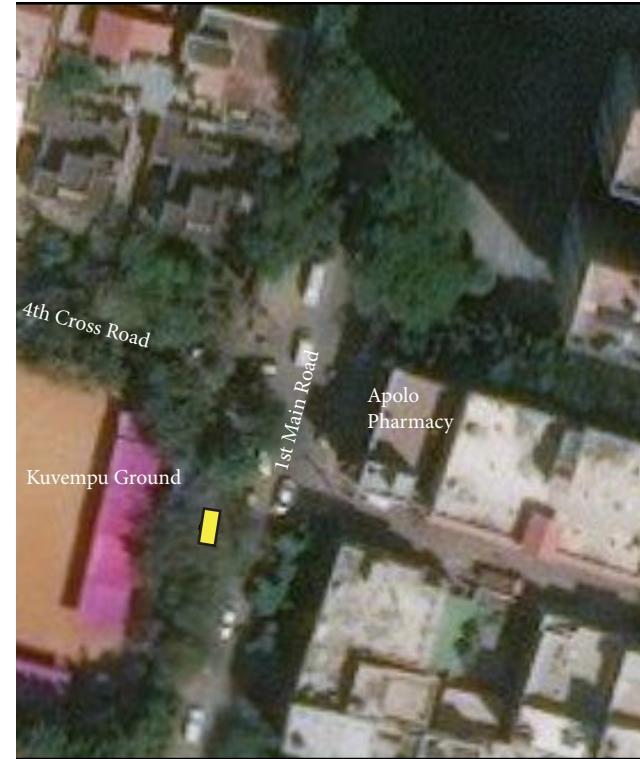
Pedestrian space available after placement of stand: **No**



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PROPOSED CYCLE PARKING LOCATION DETAILS

Type of Location: **Footpath**

Cycle Stand Type: **Perpendicular**

Number of Ports/Us: **5**

Number of Cycles: **10**

Space Requirement: **5m length * 2m width**

Land Ownership: **BBMP**

Obstructions: **No**

If Yes, description of obstructions: **NA**

INFORMATION FOR REFERENCE

Name of the Road: **1st main road**

Existing Right of Way (ROW): **15m**

Footpath Width: **4m**

Footfall: **Medium**

Surrounding Activities: **School, Residences, Commercial**

Pedestrian space available after placement of stand: **Yes**



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SURVEY METHODOLOGY: Surveys were conducted using the **Mapunity Groups** tool where survey formats were fed and data was collected regarding suitable parameters used to judge whether the location was suitable or not. A sample page of the tool is as shown below:

The screenshot shows a map of Bangalore with a callout box highlighting a specific location: "Traffic Island on New BEL road and 7th main road intersection". The callout box contains the following details:

- Location name:** Traffic Island on New BEL road and 7th main road intersection
- Name of the road:** 7th A Main Road
- Type of location:** Shoulder
- Footfall at location:** Medium

Below the callout, there are buttons for "Export" (HTML, EXCEL, KML, GEO), "DETAILS", "NEARBY 257", and "COMMENTS 0".

The sidebar on the left lists 260 posts related to cycle stands, with the first few entries being:

- Traffic Island on New BEL road and 7th main road intersection by Sathy Sankaran in NIP Cycle Stands
- BBMP park on New BEL road by Sathy Sankaran in NIP Cycle Stands
- BBMP school (1st main road) Nagishettyhalli by Sathy Sankaran in NIP Cycle Stands
- 1st Main road Bus stop (Nagishettyhalli) by Sathy Sankaran in NIP Cycle Stands
- KMF grounds (Nandini hostel) by Sathy Sankaran in NIP Cycle Stands
- UAS campus back entry by Sathy Sankaran in NIP Cycle Stands
- Cycle Day Bus stop by Sathy Sankaran in NIP Cycle Stands
- Daffodils English School entrance by Sathy Sankaran in NIP Cycle Stands

BLOCK COST ESTIMATES

Under this Cycle Parking Master Plan, a total of 259 Us have been identified to accomodate 467 cycles at 41 different locations. The total estimated cost for installing cycle parking infrastructure in the ward 18 and 19 amounts to Rs. 5,20,000/- . The block cost estimation has been done based on a set of 5 Us. The details of the cost are as below.

Sl. No	Items	Cost per set of 5 Us (INR)	Total No. of sets	Total Cost (INR)
1	Fabrication of Us	7500	52	3,90,000
2	Fixing of Us	1500	52	78,000
3	Painting/ Trans- portation	1000	52	52,000
				5,20,000 INR

