



PUBLIC BIKE SHARING



Why Public Bicycle Sharing (PBS) in Chandigarh

- Flexible public transport service
- Dense network of cycle rental stations
- Users can take a cycle from any station and return it to any other station in the system
- Complimenting existing public transit by providing first and last mile connectivity.



Transport Innov

Integrated Mobil

Sustainability and

Ease of Use
Convenient

Reduce Tra
Congestio

Low Cost mo
Travel

CONCEPT AND MECHANISM OF PBS- Chandigarh

The Public Bicycle Sharing is a system in which a **high quality bicycle based public transport is facilitated**. The **four** basic components that constitute this system are:-

- ❖ **Bicycle**
- ❖ Network of **Stations** at key **Locations**
- ❖ **GPS** based tracking of bicycles
- ❖ Allows **short-term shared** use of bicycles



Sign In



Select



Ride



Return

BASIC CHARACTERISTICS

- Permanent stations**
 - Set of bicycle stands and service terminal**
 - Bikes are locked into stands via an app based locking mechanism**
-
- Opening an app and walking up to a bike on the street**
 - Free to use the system and pay according to the usage**
 - After finishing the journey, the lock is simply clicked back into place, and the bike is parked on its side-stand, with no need to lock it to a railing.**

Case of Chandigarh



City Area
114 Sq. Kms

Population
10.53
Lakhs
(as per 2011
census)

186 Km of
Dedicated
Cycle
Track

Smart Components

- Intelligent Integrated Docks
- Intelligent Command Control Centre
- Back lit panels for advertisement & public information



- **Largest PBS -Pan City Coverage -with 5000 bikes & 617 Docks**
- No Financial implications-- PPP Mode

Impact

- **Last mile connectivity with 5000 bikes**
- **Healthy and fit population**
- **Reduced traffic congestion**
- **Reduced fuel consumption**
- Financial **savings** for individuals.
- Reduction of vehicle emissions **reduces carbon footprint** to the environment

Facilities Proposed

- Bicycles
- Parking Stations with Docks/ Locking posts
- Central Control System
- Infrastructure for bicycle Redistribution
- Depots/ Workshops
- User Registration Infrastructure
- Fare Collection System
- User Information System
- Advertisement Space
- Mobile App

NUMBER OF BICYCLES

According to 'The public bicycling toolkit' developed by **Ministry of Urban Development (MoUD)-2016**, following parameters have been considered to ascertain optimum number of bicycles in a particular city.

- ❖ **AREA-** For every 5 sq. km area there should be 1000 bicycles
- ❖ **POPULATION-** For every 30 users there should be 1 bicycle

In case of some city in India:

Considering the **total area** of the urban limits (approximately 100 sq. km) there should be **20,000 cycles.**

- ❖ Considering **population (9,00,000)** there should be **30, 000 bicycles**
- Initially, **low no of cycle** can be deployed and the **number** might be scaled up or down, depending on the **market demand.**

METHADODOLOGY- Identification of PBS Points

Parameters	Details Considered
POPULATION DENSITY	Density pattern in residential areas and overall populations stats for demand assessment.
LAND USE	Includes residential areas, major administrative offices like-MC buildings, post office, commercial areas, market places, recreational places, educational institutes, garden & parks.
ROAD NETWORK	Along major arterial roads, shopping streets, tourist hub
TRAFFIC GENERATING ACTIVITY	Includes Public Transport and Intermediate Public Transport stops, Existing railway station, bus station, high density of commercial, recreational, public, religious places and colleges & other institutions etc.
PUBLIC TRANSPORT AND INTERMEDIATE PUBLIC TRANSPORT	Bus Stops & Parking areas.
AVAILABILITY OF LAND	Readily available open space for bicycle parking

Components of PBS

Lock Facility

Rust Proof – Light Weight Frame

Bell

Reliable Disk Braking

Adjustable Seat

Front Basket with optional Solar Panel

Advertisement Space

Step-through Frame

Front Light

Full Fender

Integrated Rear QR Code reader

Real-time GPS Device

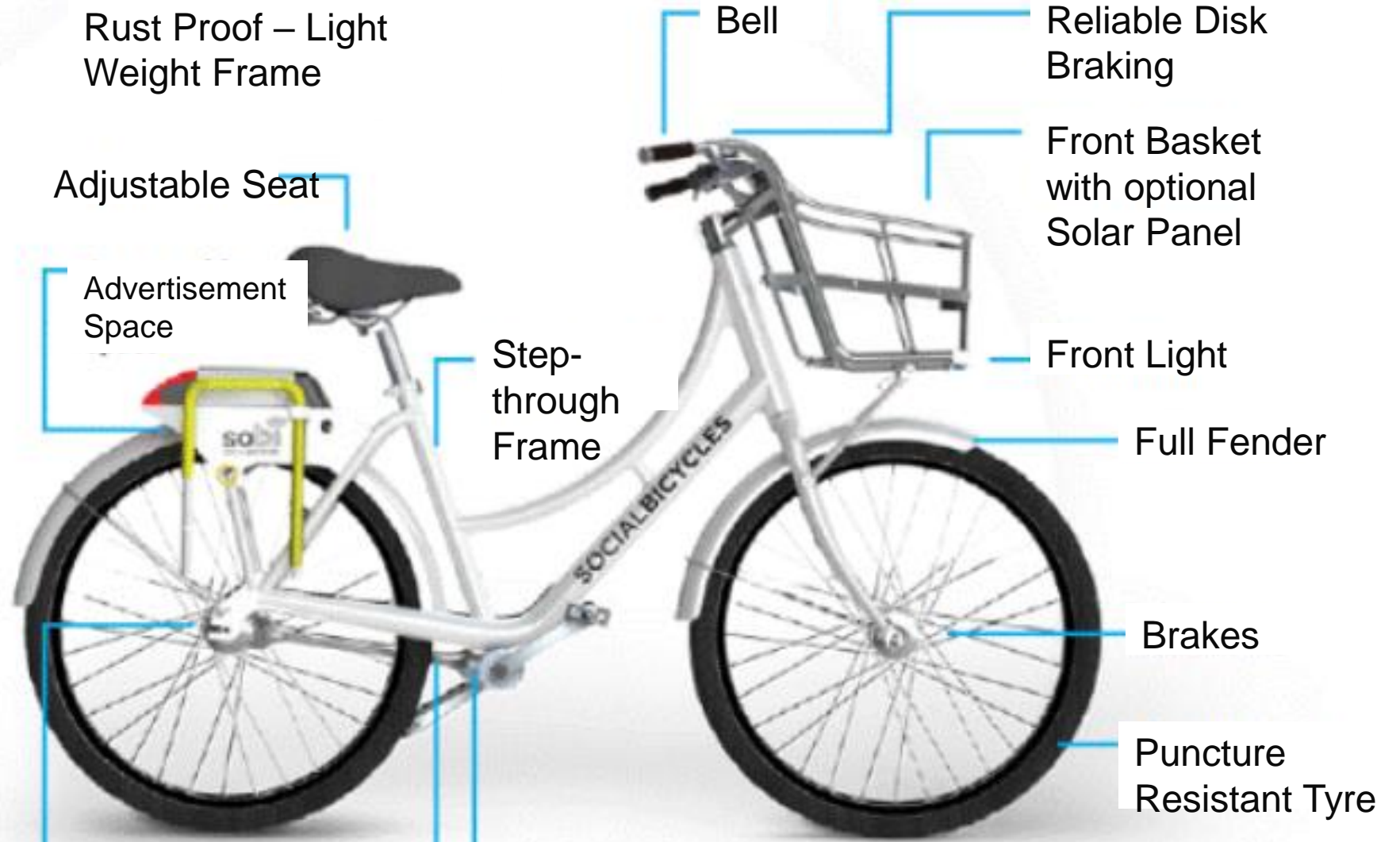
Brakes

Puncture Resistant Tyre

Chain/Chainless Shaft Transmission

Side Stand

All components to be vandalism Proof and secured with



DOCKING STATION POINTS

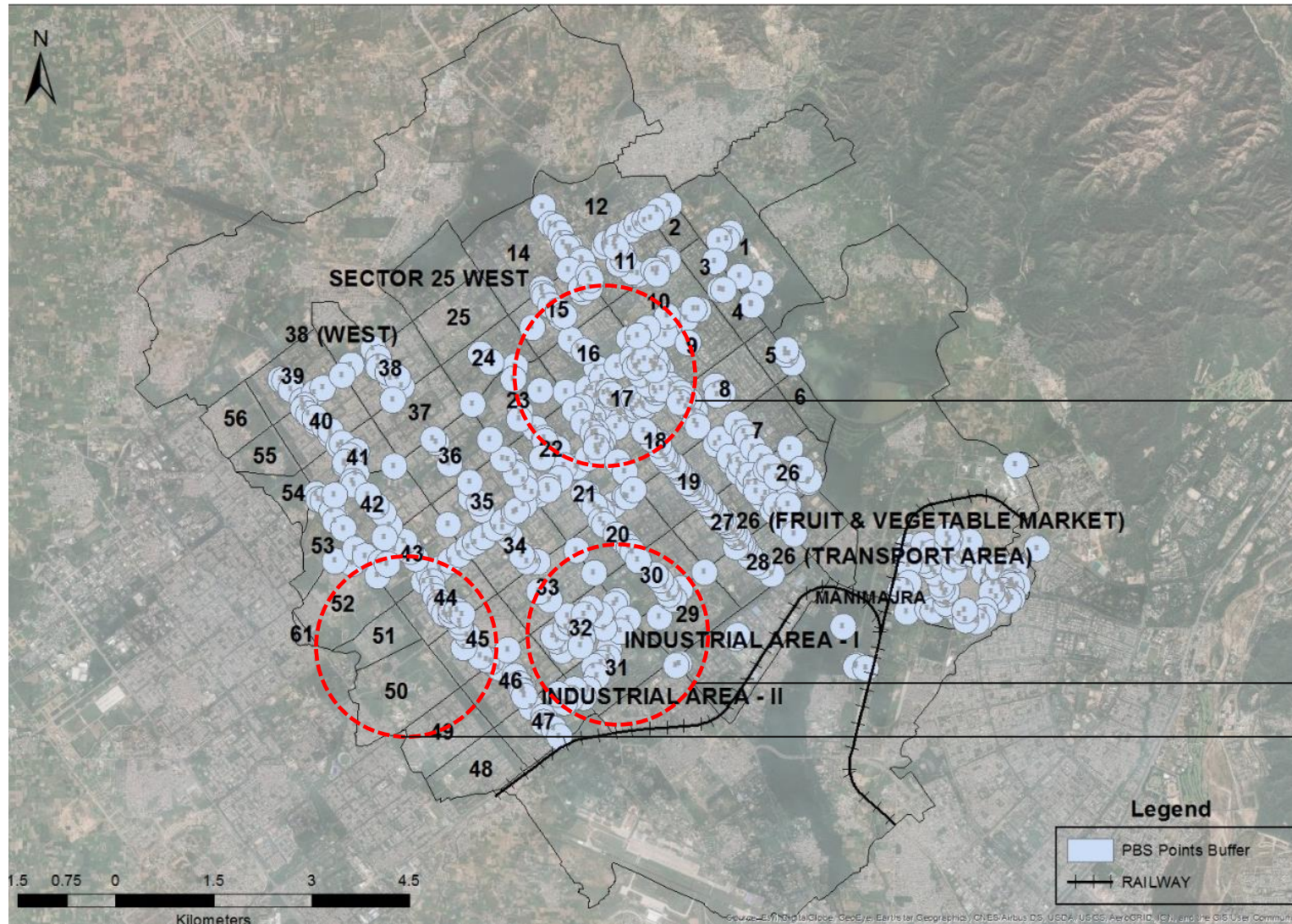


- Uttar Marg – 1
- Jan Marg – 14
- Madhya Marg – 27
- Sarovar Path – 6
- Himalaya Marg – 13
- Purv Marg – 4
- Udyog Path – 12
- Dakshin Marg – 27
- Pashchim Marg – 4
- Udyan Path – 5
- Sukhna Path – 10
- Chandi Path – 7
- Vidhya Path – 5
- Shanti Path – 15
- Vigyan Path – 1
- Vikas Marg - 5

● PROPOSED PUBLIC BICYCLE SHARING SITES (499 No.)

● ADDITIONAL PROPOSED PUBLIC BICYCLE SHARING SITES (118 No.)

WALKABILITY TRIPS FROM PBS POINTS



Dense concentration at Commercial Node

Medium concentration at mixed use

Sparse concentration at Periphery

Public Bike Sharing System



Fare Structure

Particulars	Project Details
Name of the Project	Public Bike Sharing for Chandigarh- Pan City
Total Stations	617
Total Bicycles-fleet size	5000
Proposed Components	<ul style="list-style-type: none"> Intelligent Integrated Docks Intelligent Command Control Centre Back lit panels for advertisement & public information dissemination
Proposed Mode	PPP mode (DBFOT)
CAPEX & OPEX	Estimated Project Cost:-Rs. 20 Cr Approx, To be borne by Concessionaire including the marketing to fulfil the service level standards of the proposed facilities.

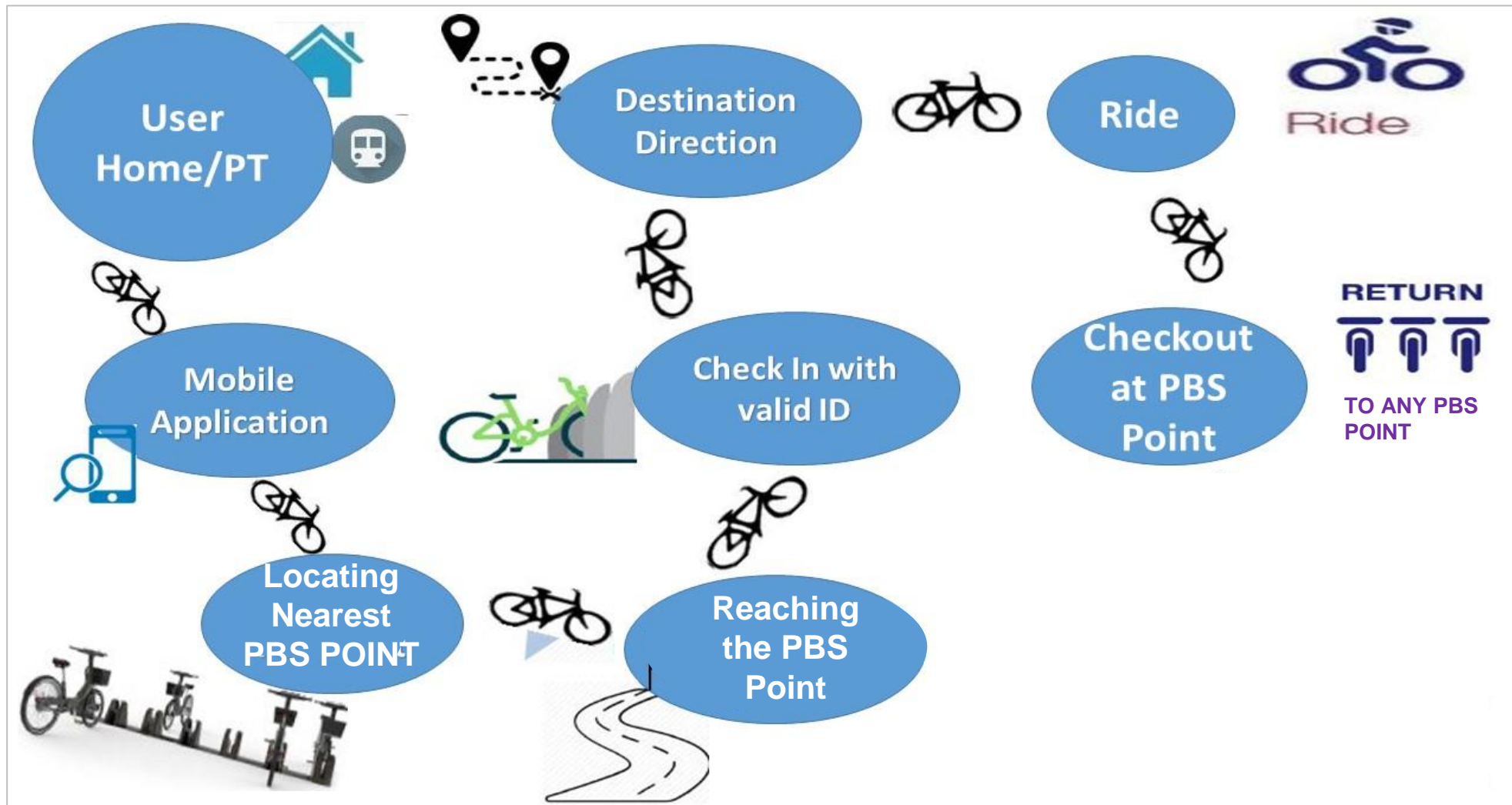
a. The Subscription Fee of Bikes shall be as follows:

- For membership, the user has to pay Annual Subscription Fees of Rs. 200 for each year.

a. The User Fee/Cycle Hire Charges (exclusive of GST) of Bikes shall be as follows:

Time Span	Member (in Rs.)	Non – Member (in Rs.)
Upto 1/2 hr	5	10
Incremental for additional ½ hr	+5	+5

PROPOSED MECHANISM IN CHANDIGARH



Existing Situation



2018-8-7 11:55

Current Proposed Design



Journey so Far



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my city अमर उजाला
 चंडीगढ़

चंडीगढ़ में ट्रायल.. 120 लोगों ने चलाई साइकिल
 बोलो-जन्त शुरु हो प्रोजेक्ट, प्लानिंग एंड इम्प्लीमेंटेशन कमिशनर ने हरी झंडी दिखाई, स्मार्ट सिटी की ओर से सेक्टर 17 में पूरे दिन चला ट्रायल
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पब्लिक बाइक शेयरिंग का लाइव डेमो : 40 साइकिल पर 200 का सवा
 शाम 5 बजे के बाद अनपेक्षित चलकों ने डेमो में लिया हिस्सा
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