

Looking Beyond Green: Building for People Instead of Ratings

6th GRIHA Summit, 12th March 2015, New Delhi



**The Urban Population of India is expected to double
in the next few decades**

Source: Ministry of Urban Development Website

Indian cities have certain distinct conditions not found elsewhere in the world

Indian cities accommodate people from diverse cultures

The have large numbers of first generation urban dwellers

Diverse modes of transport sharing the same street space. A large number of two-wheelers as against cars.

**Existing models need to be reworked to
accommodate Indian Needs**

**The existing Urban Fabric does not provide for the
needs of the Urban Indian**





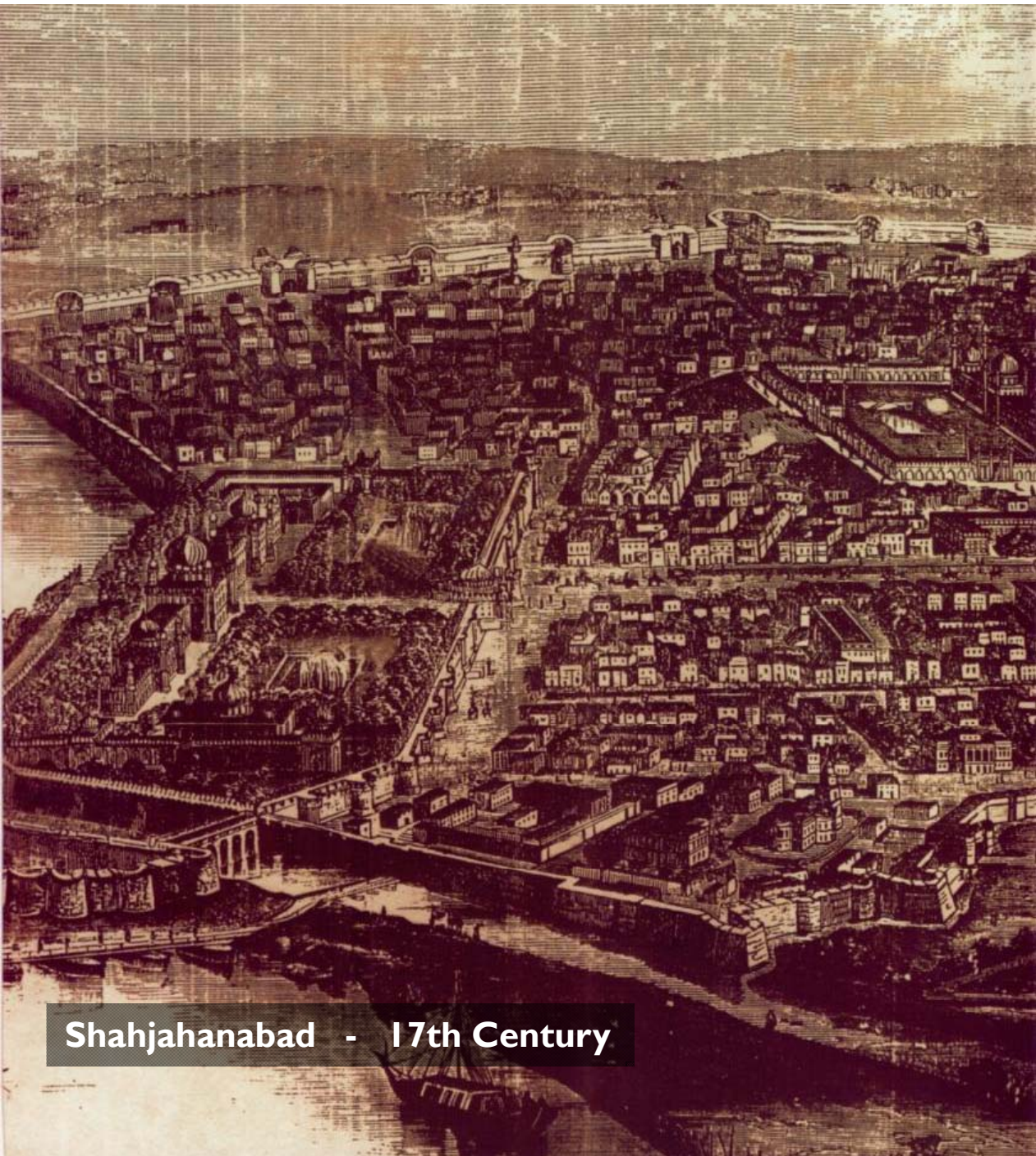








Jama Masjid Precinct, Delhi



Shahjahanabad - 17th Century

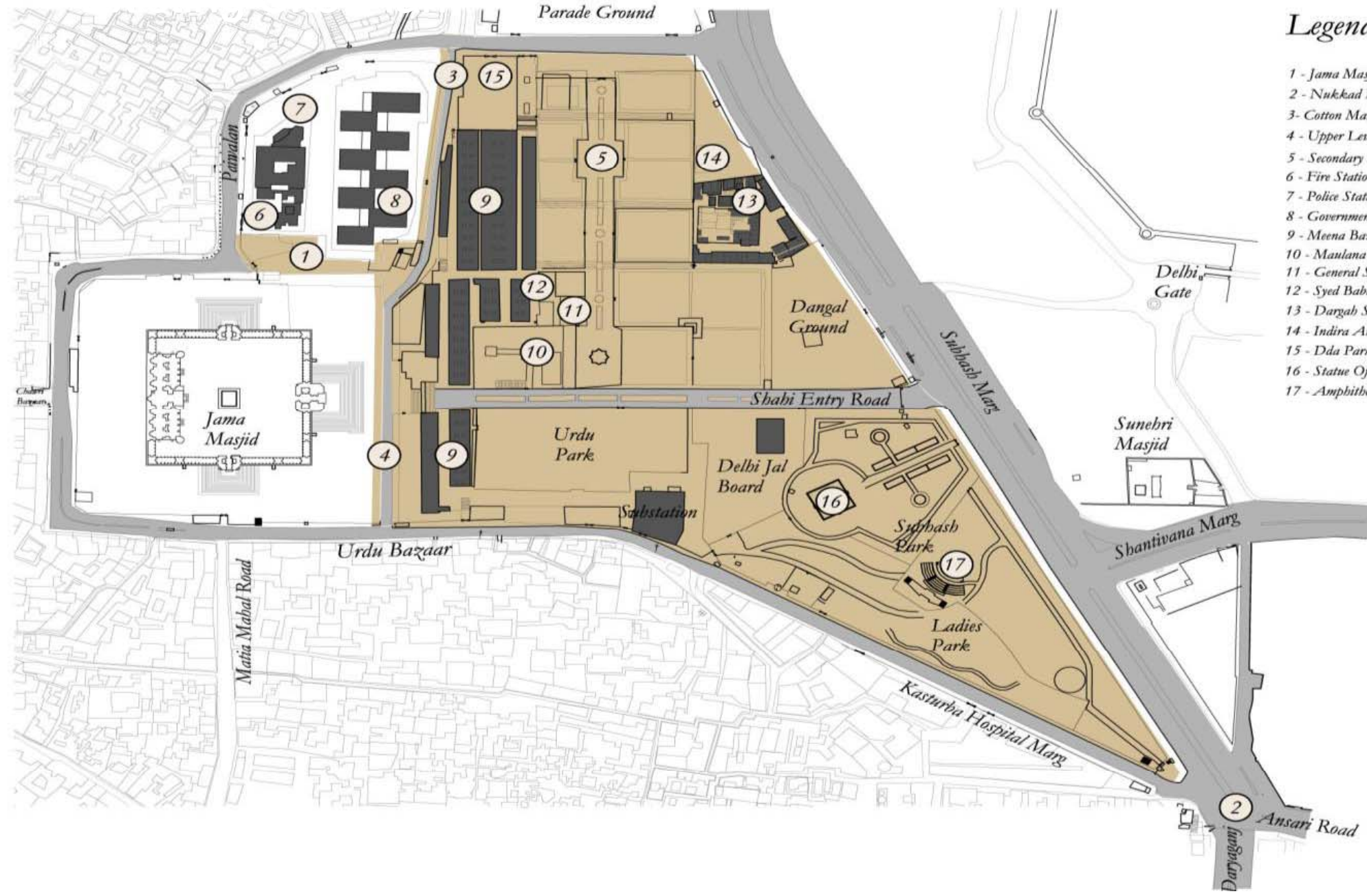


Jama Masjid – post 1857 AD



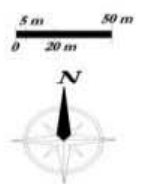
Image © 2009 DigitalGlobe

28°39'03.26" N 77°14'16.07" E



Legend

- 1 - Jama Masjid Parking
- 2 - Nukkad Faiz Bazaar
- 3 - Cotton Market Road
- 4 - Upper Level Road
- 5 - Secondary Pedestrian Spine
- 6 - Fire Station
- 7 - Police Station
- 8 - Government School
- 9 - Meena Bazaar
- 10 - Maulana Abul Kalam Azad Azar
- 11 - General Shah Nawaz Mazar
- 12 - Syed Baba Ubbrey Shah Mazar
- 13 - Dargah Sheikh Kalimullah
- 14 - Indira And Coat Market, demolished.
- 15 - Dda Parking
- 16 - Statue Of Netaji
- 17 - Amphitheatre







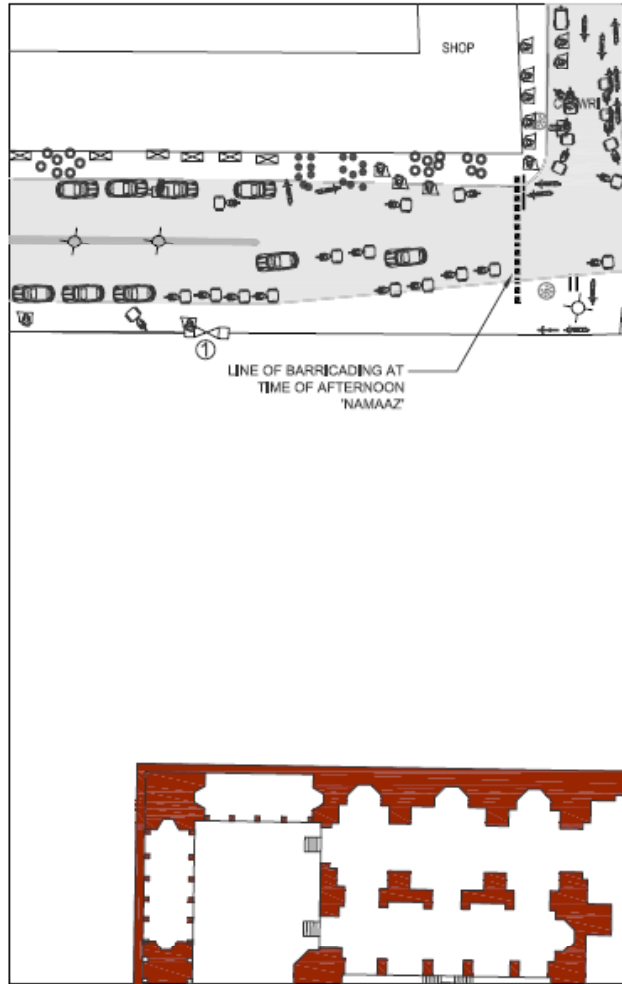






Activities – Day

Urdu Bazaar till Chawri Bazaar Junction

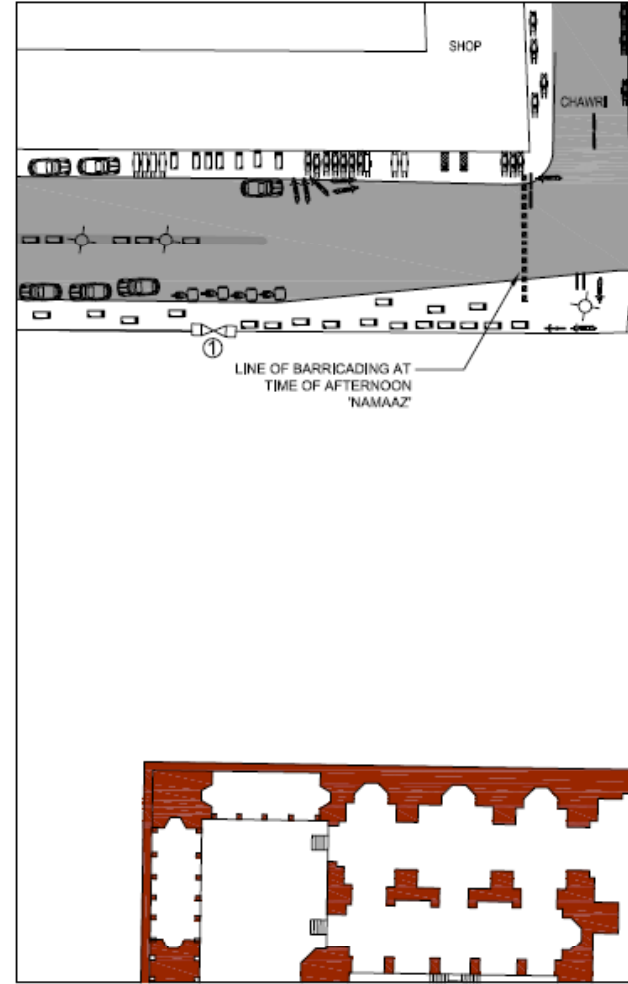


LEGEND



Activities – Night

Urdu Bazaar till Chawri Bazaar Junction



LEGEND





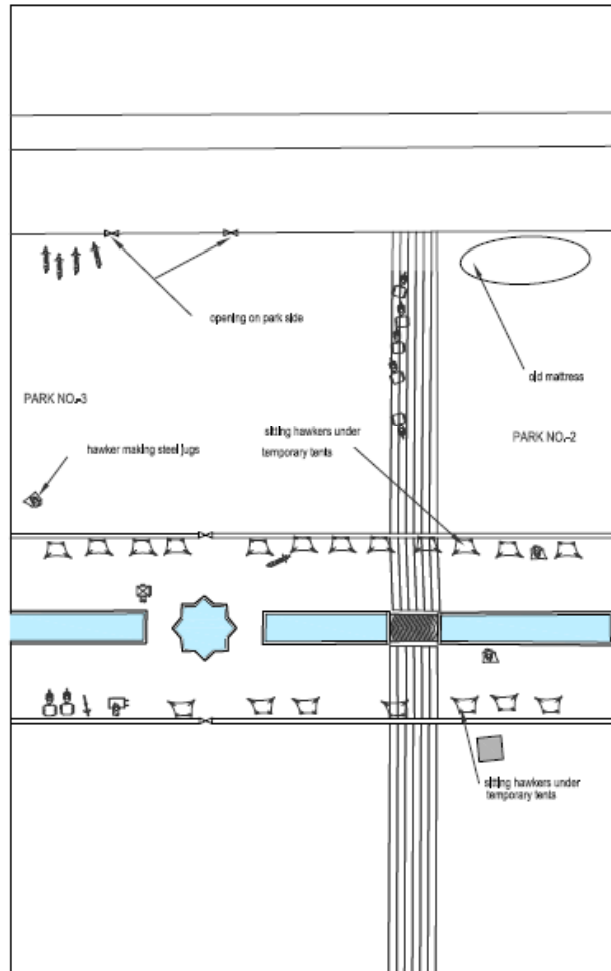






Activities – Day

Central Open Space



LEGEND

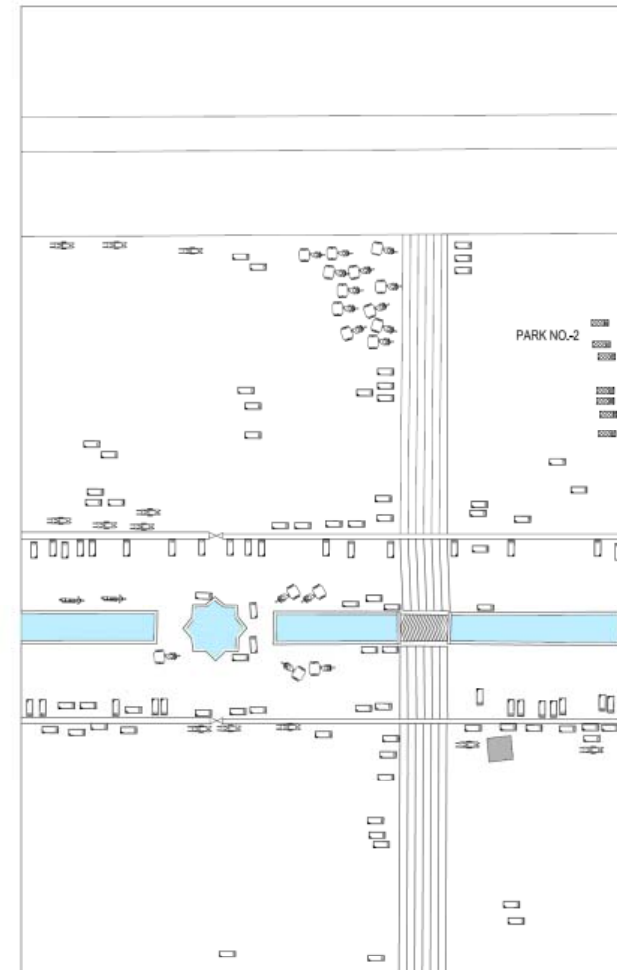
TENT HAWKER	CYCLE RICKSHAW	SITTING HAWKER	ICE CREAM VENDOR	GATE

12	13	14
19	20	21
26	27	28



Activities – Night

Central Open Space

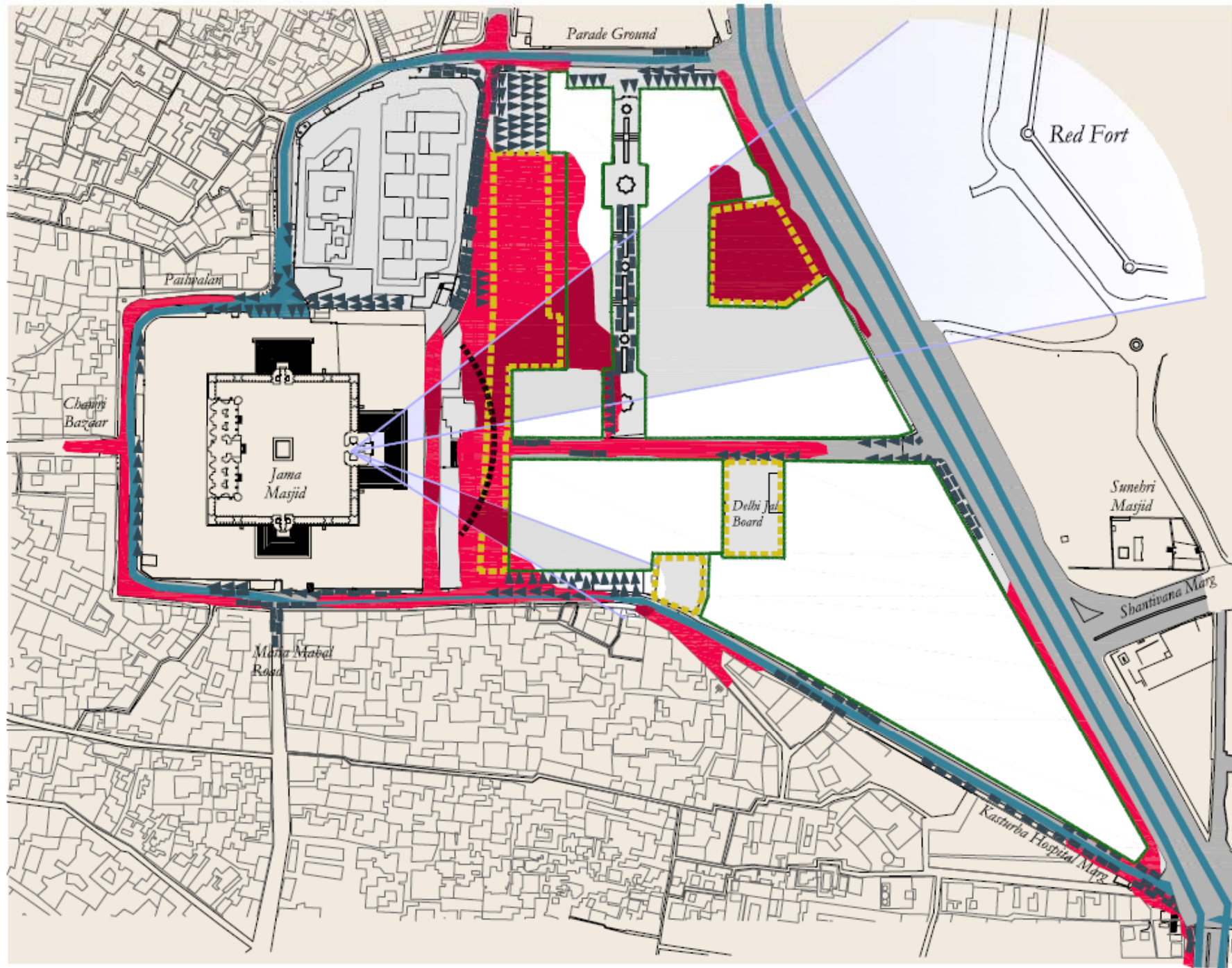


LEGEND

SLEEPING (ON COT)	CYCLE RICKSHAW	SLEEPING (ON ROAD)	GATE
SLEEPING (ON CART)	TWO WHEELER		

12	13	14
19	20	21
26	27	28





Legend

Commercial Activity
■ Commercial activity spilling on public right of way

Movement Network and Parking
— Movement Network
▲ M. V. Parking
■ N. M. V. Parking

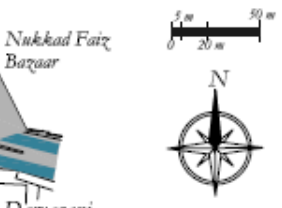
- Limited right of way on peripheral street and poor road geometry
- Unplanned and unregulated traffic
- Inadequate and haphazard parking
- NMV parking all along precinct blocking public right of way

Building development
- - - Ad-hoc Development and inappropriately sited urban infrastructure facilities and utilities

Fragmented and Restricted Open Spaces
□ Imbalance in the intensity of usage of public open space

Visual Corridor
▶ Blocked Site Lines

Inadequate civic amenities and facilities for worshippers



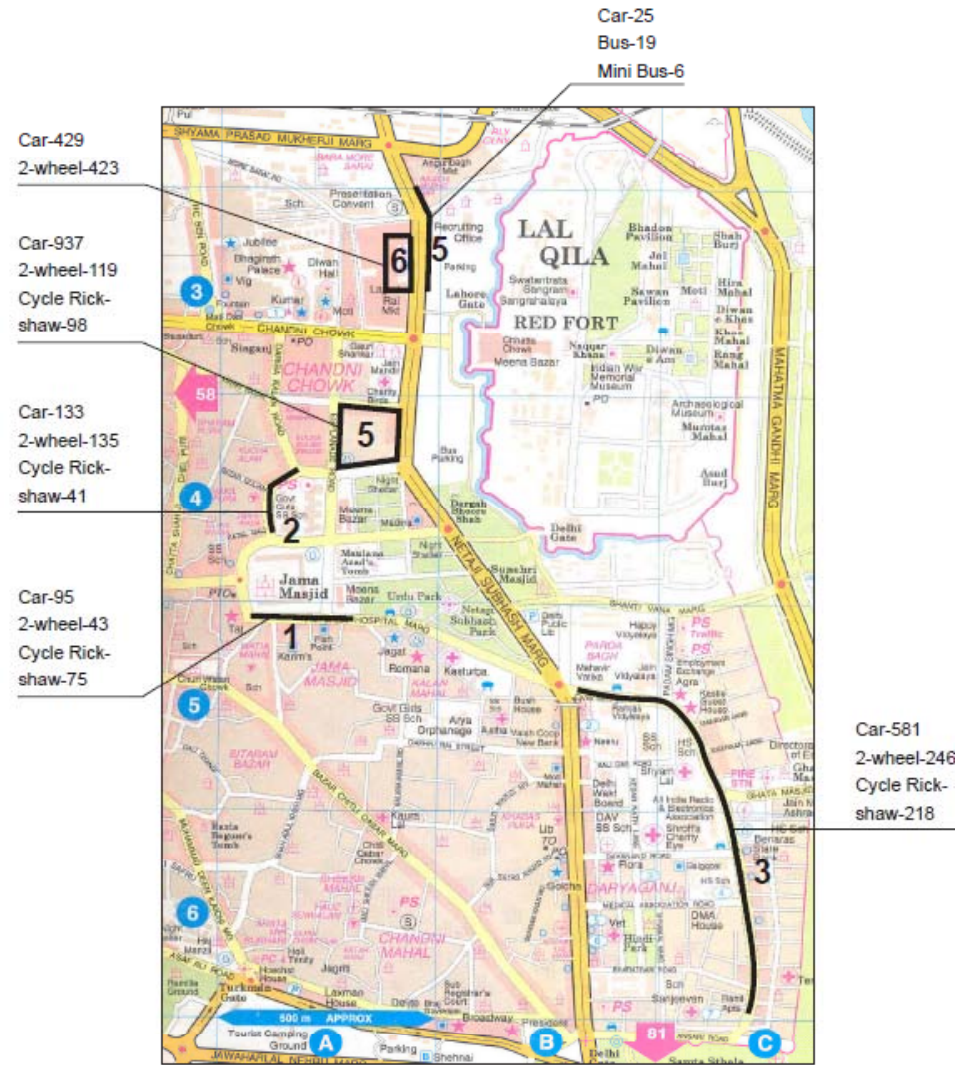
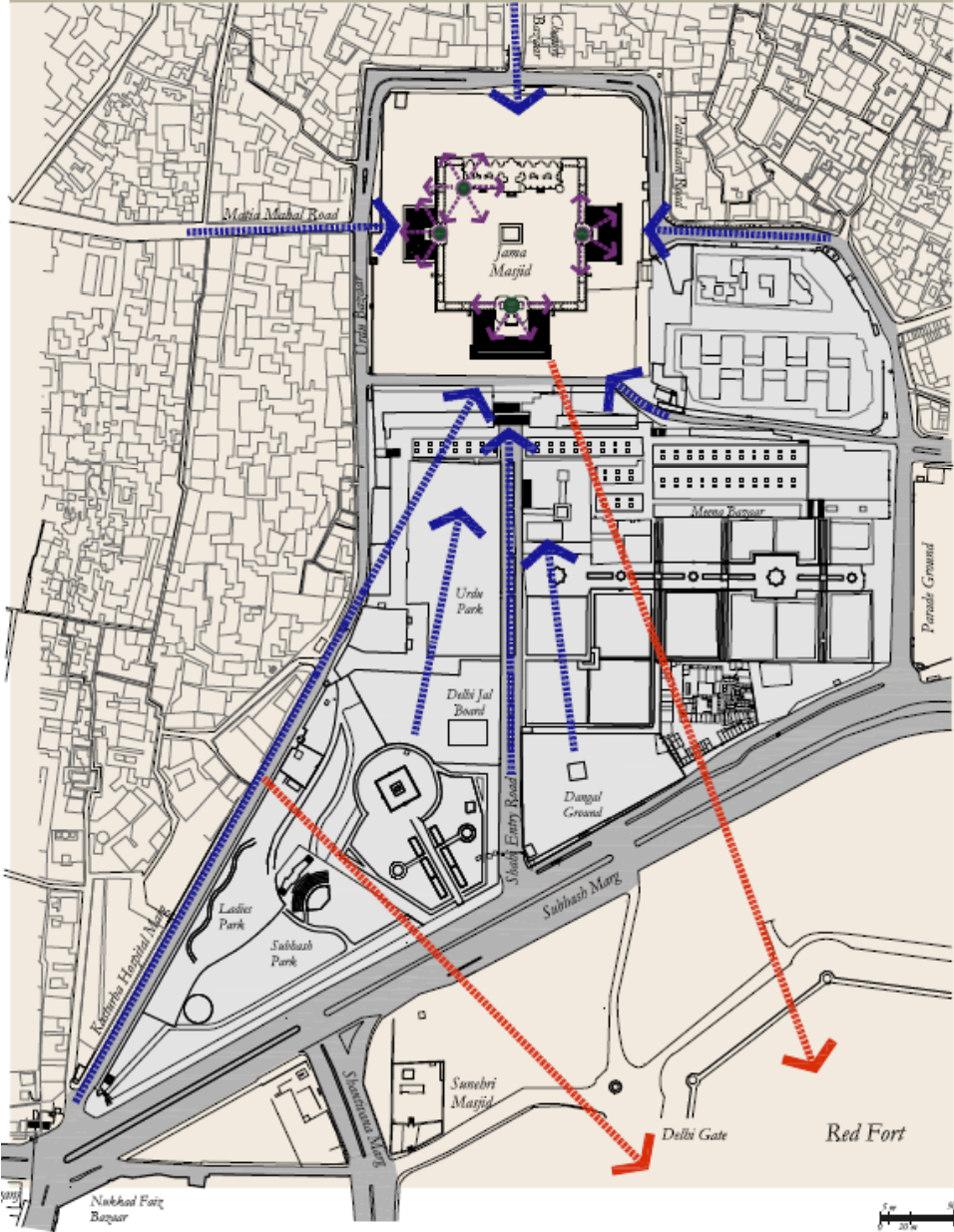



Figure 12: Parking survey locations around Jama masjid

Visual Corridors



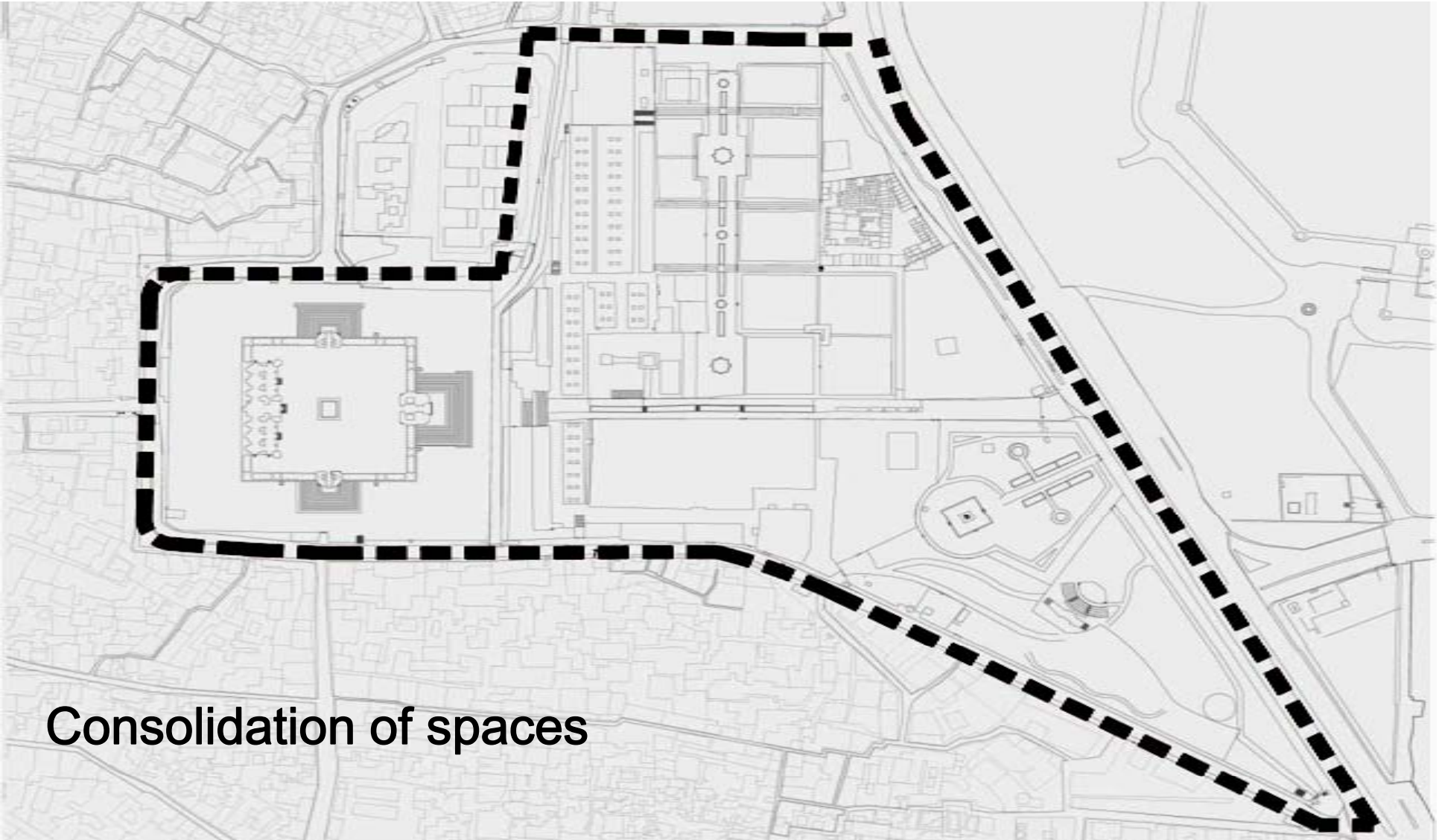
 View of Jama Masjid

 View of Red Fort

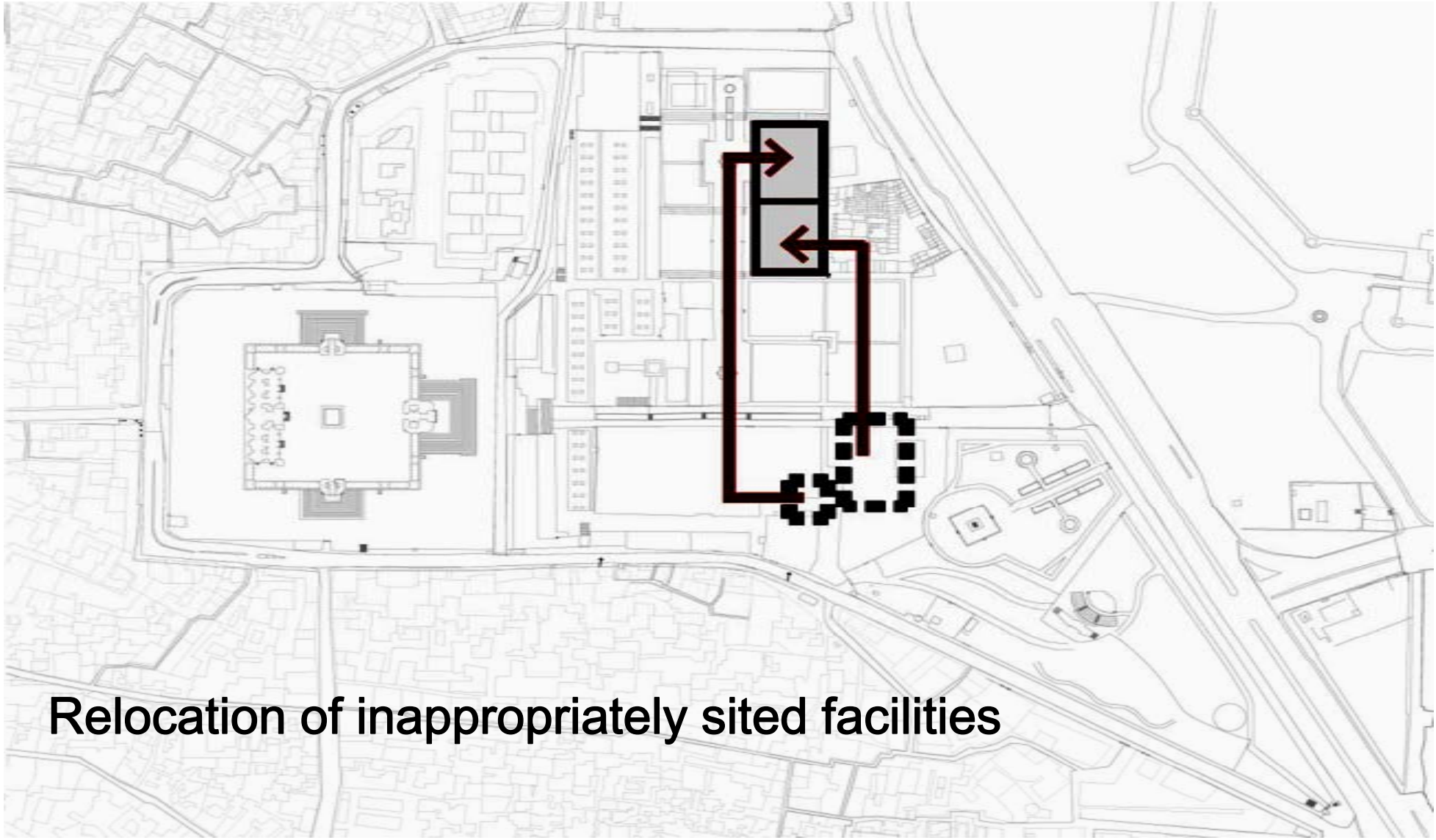
 Vantage points at Jama Masjid entrance steps



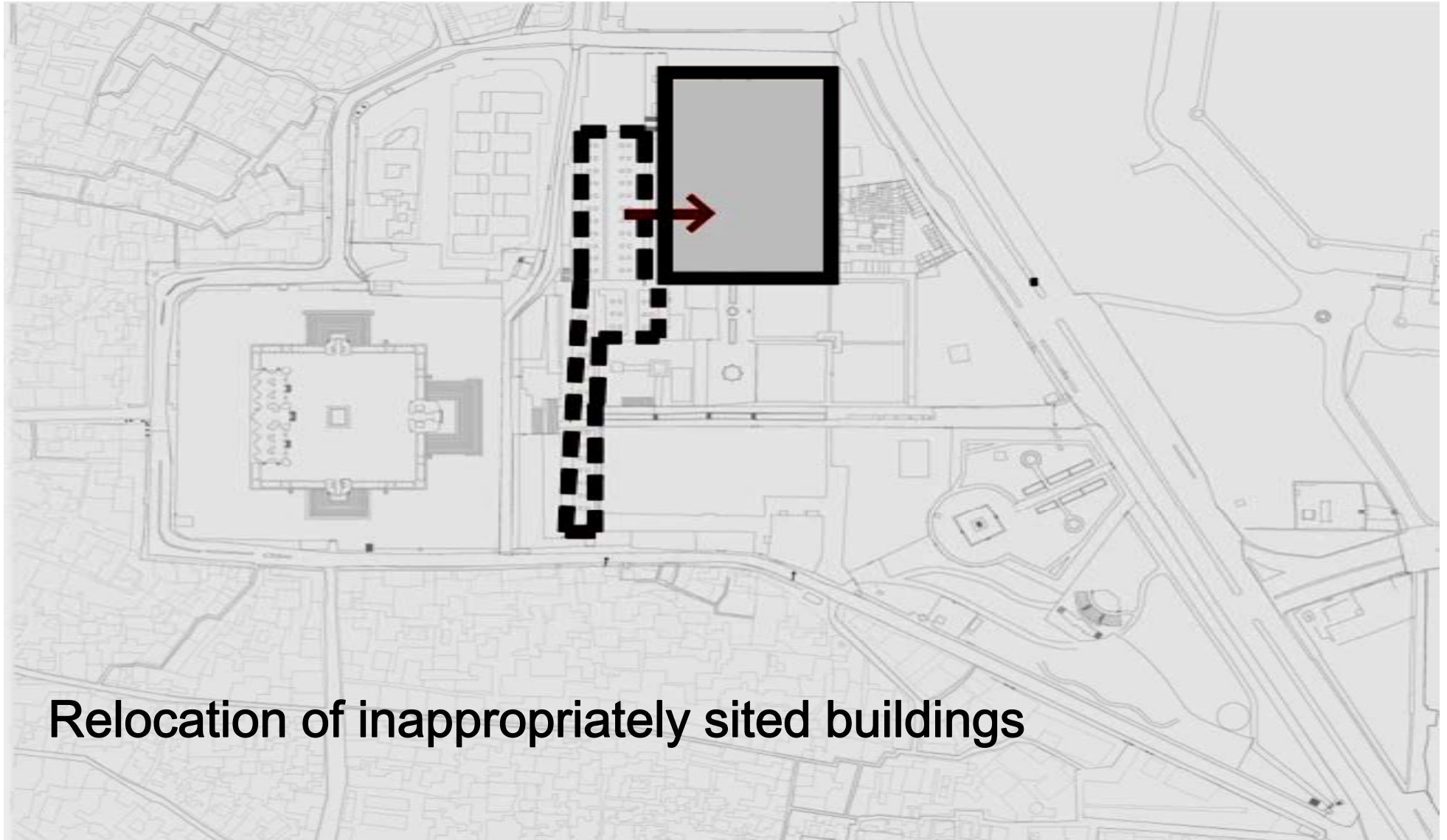
Redevelopment Process



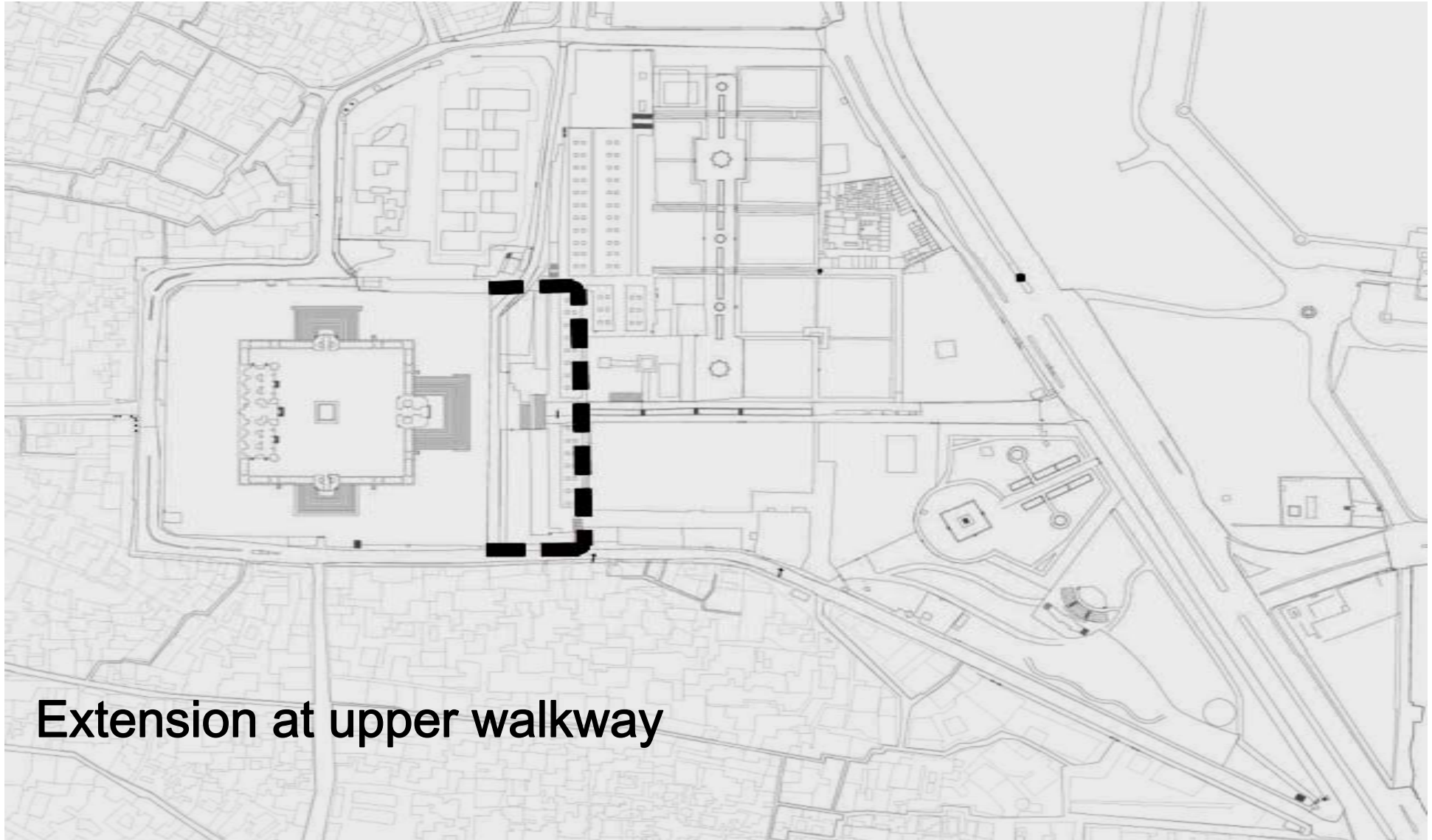
Consolidation of spaces



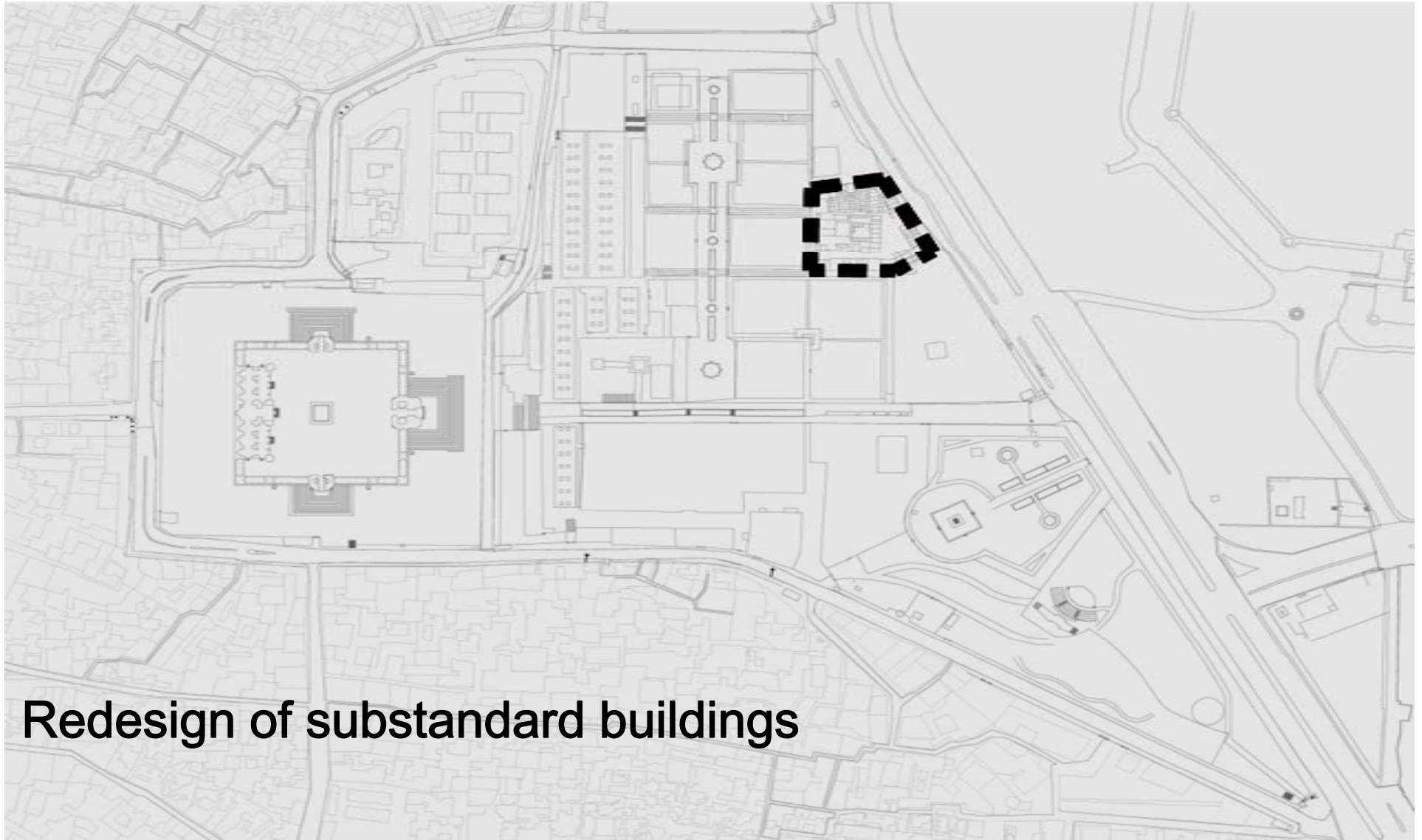
Relocation of inappropriately sited facilities



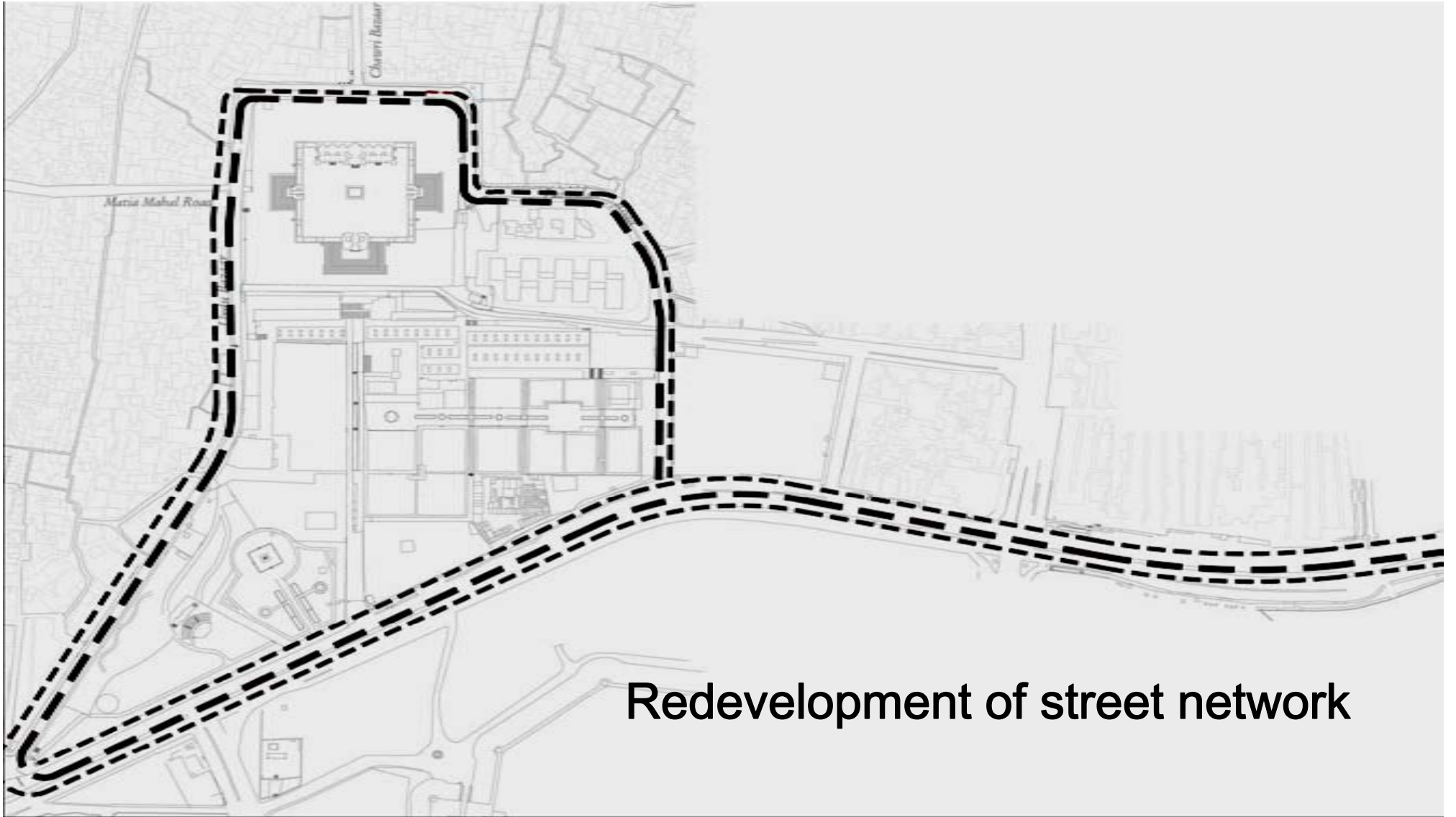
Relocation of inappropriately sited buildings



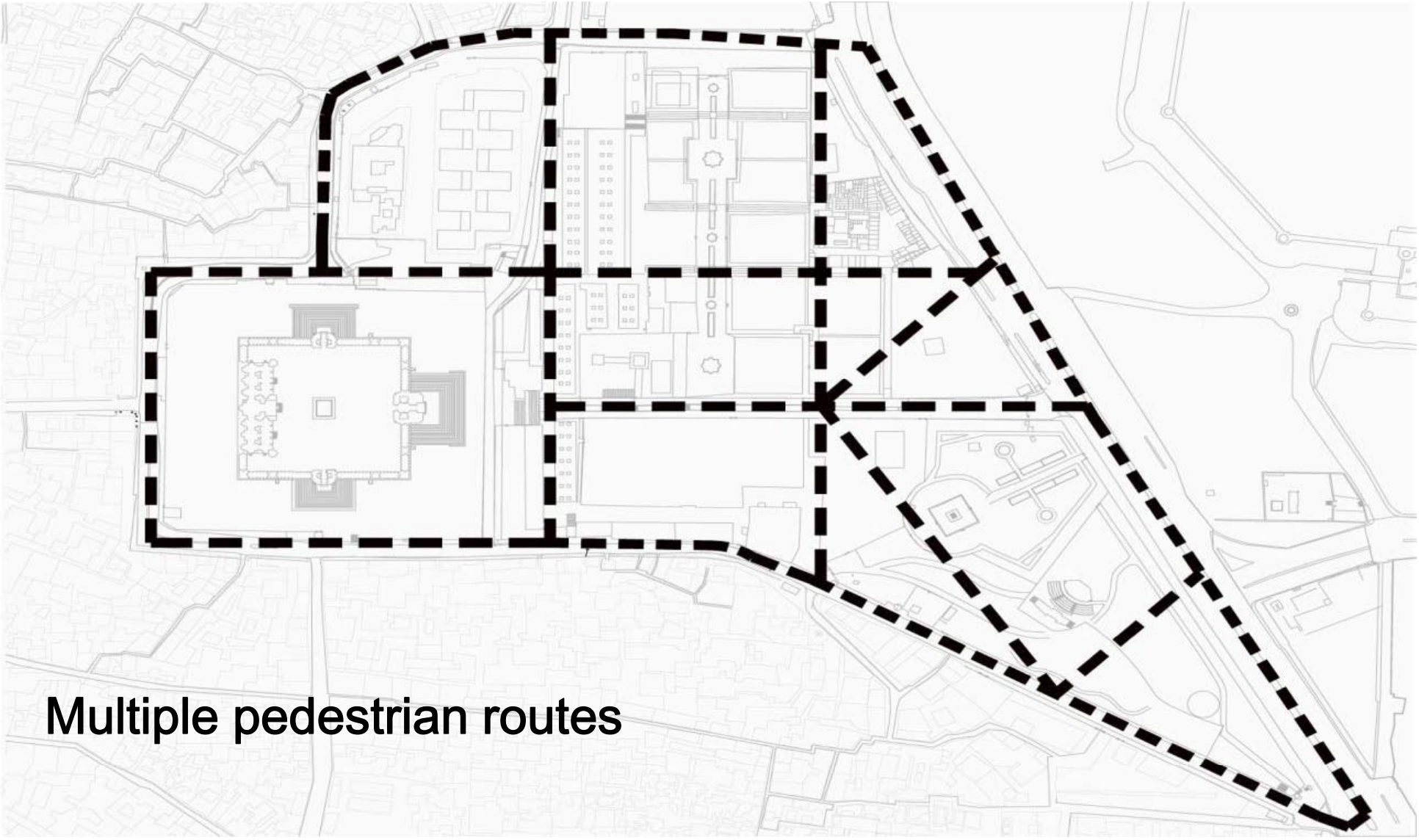
Extension at upper walkway



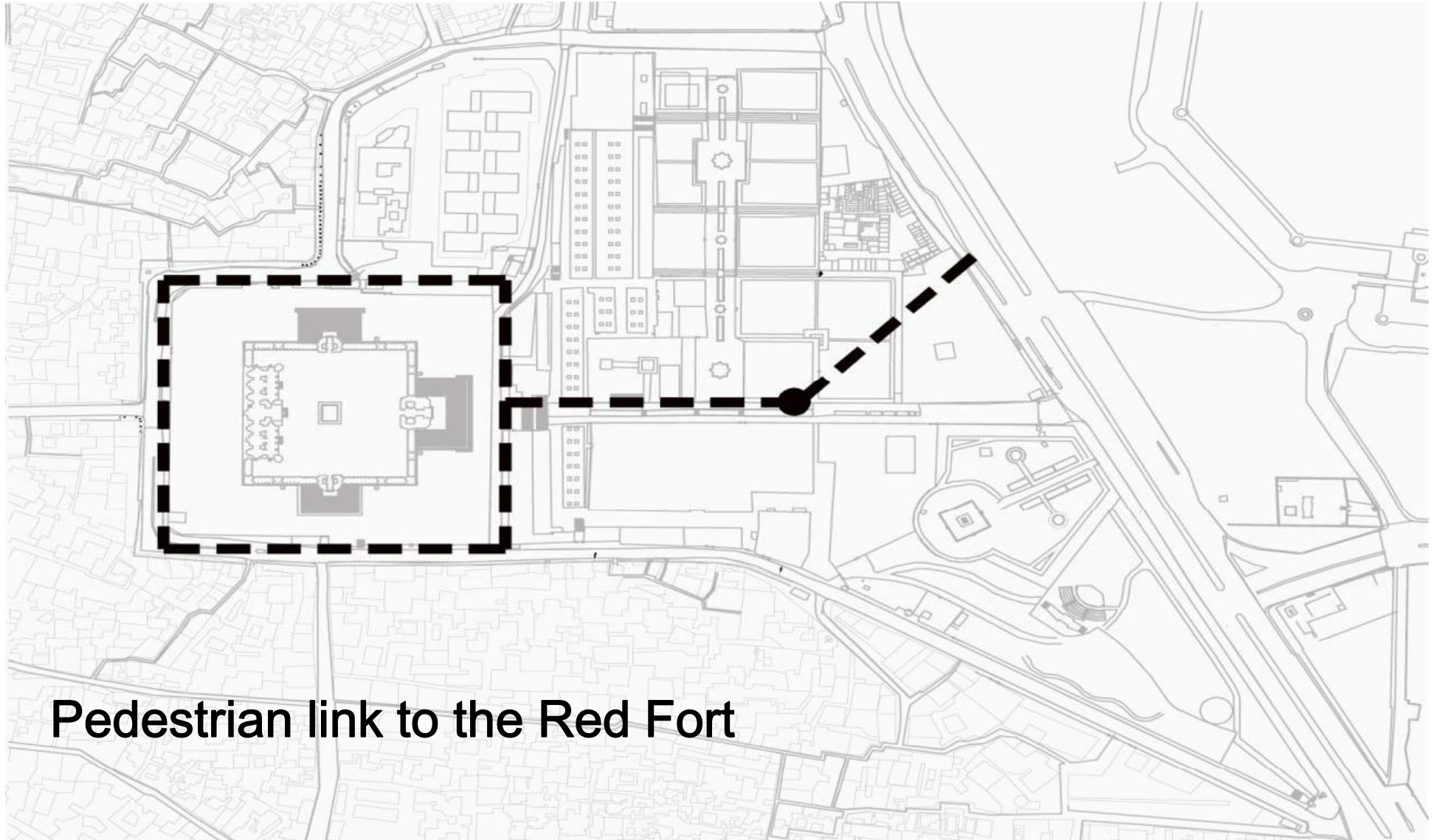
Redesign of substandard buildings



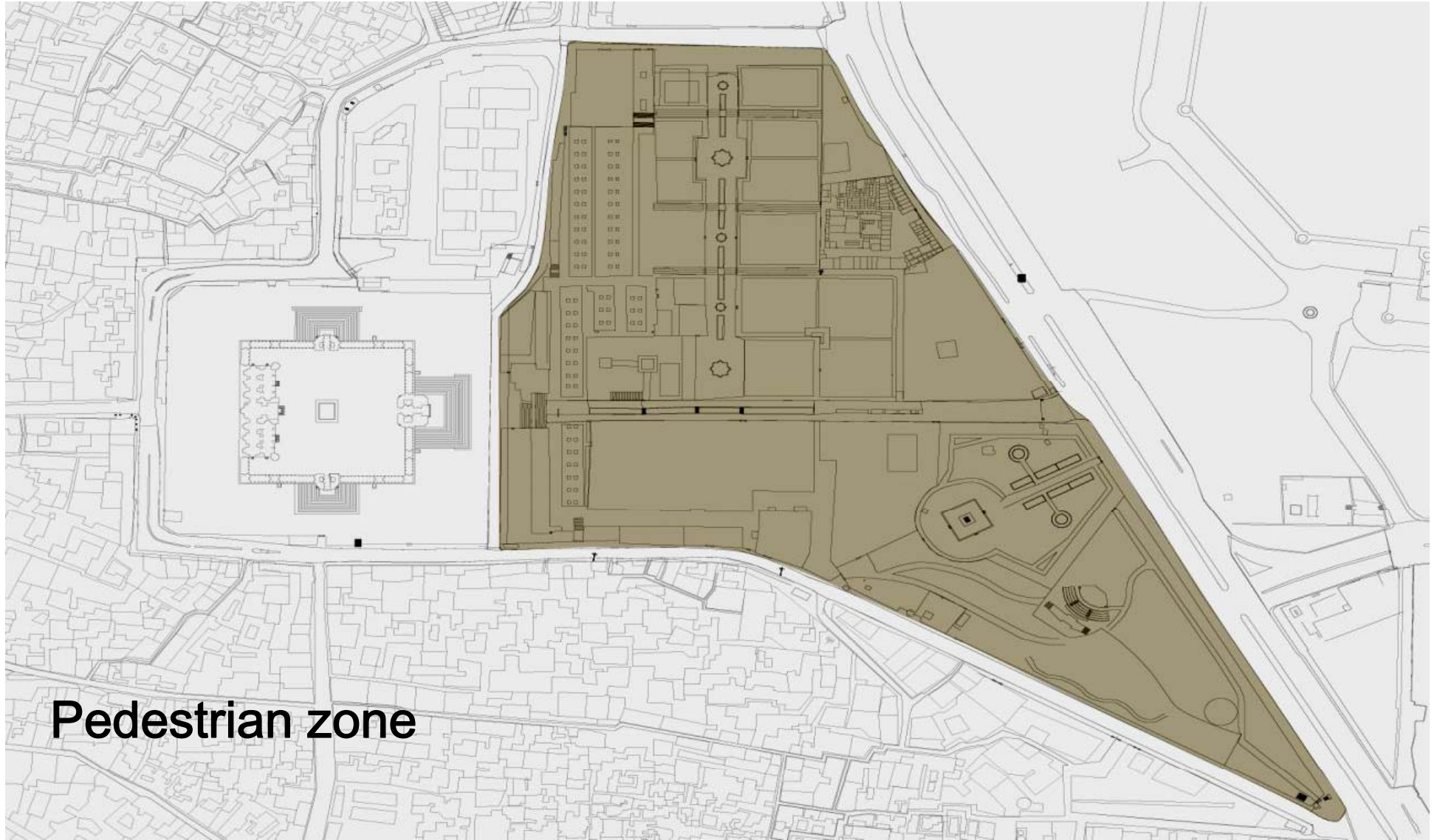
Redevelopment of street network



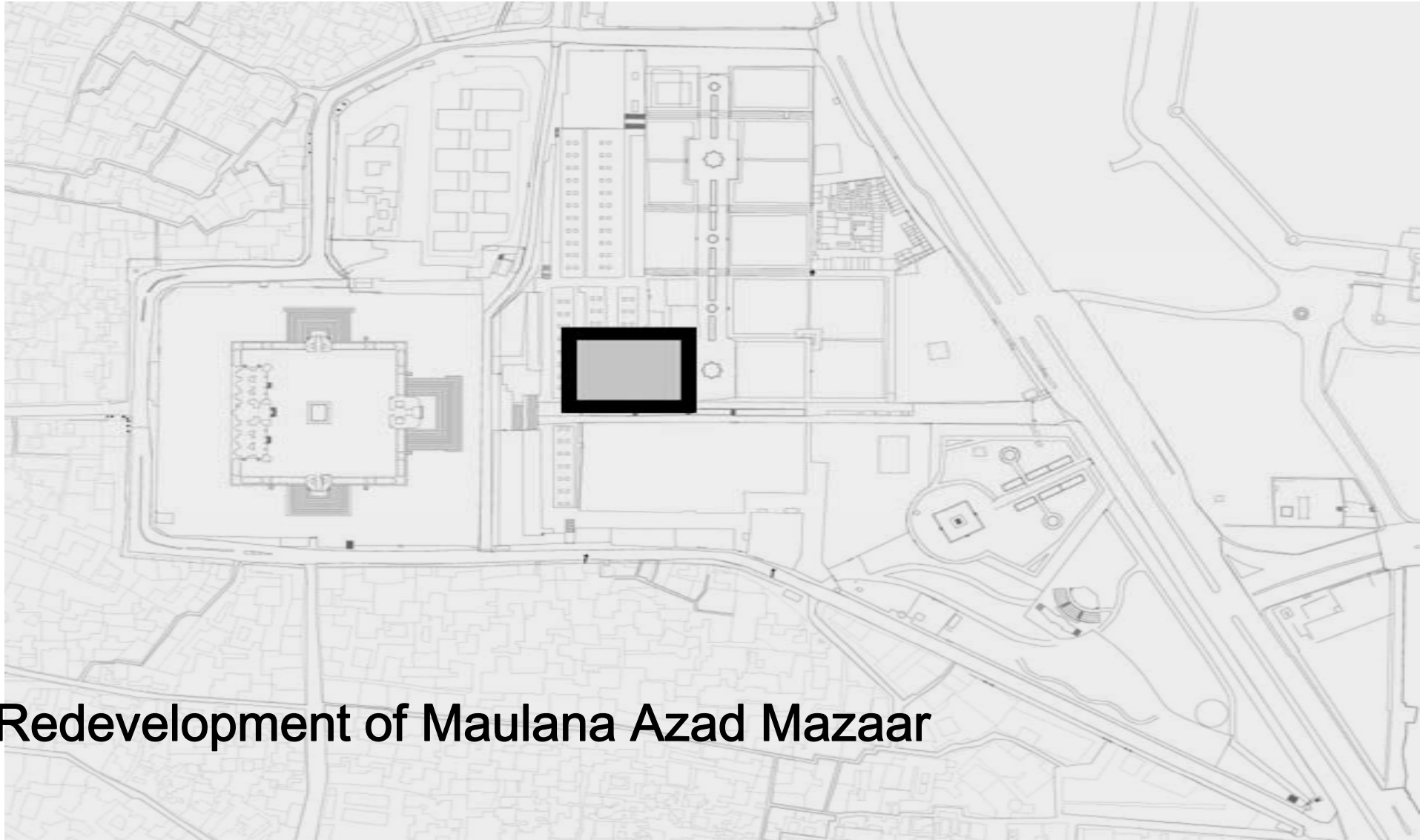
Multiple pedestrian routes



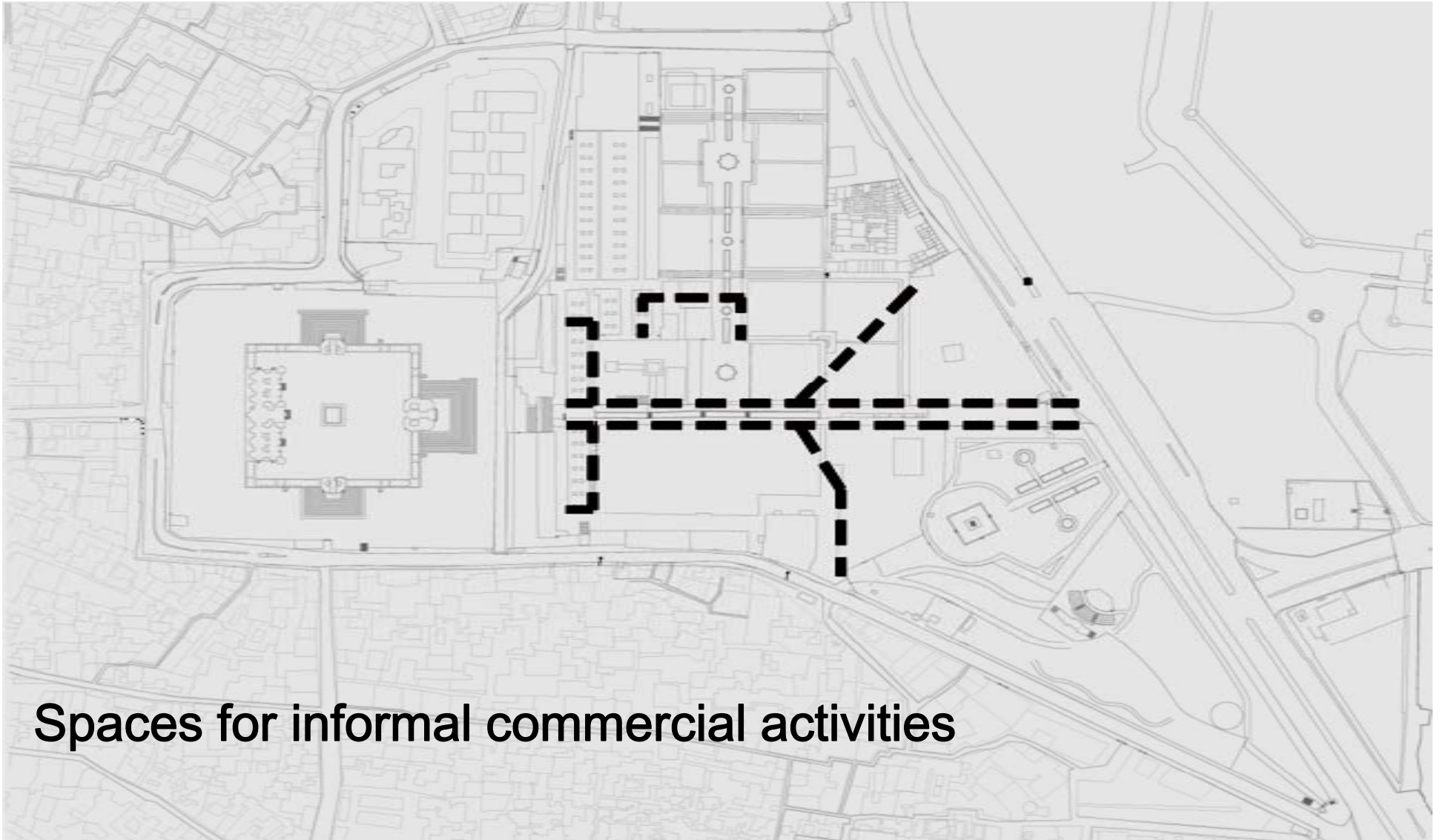
Pedestrian link to the Red Fort



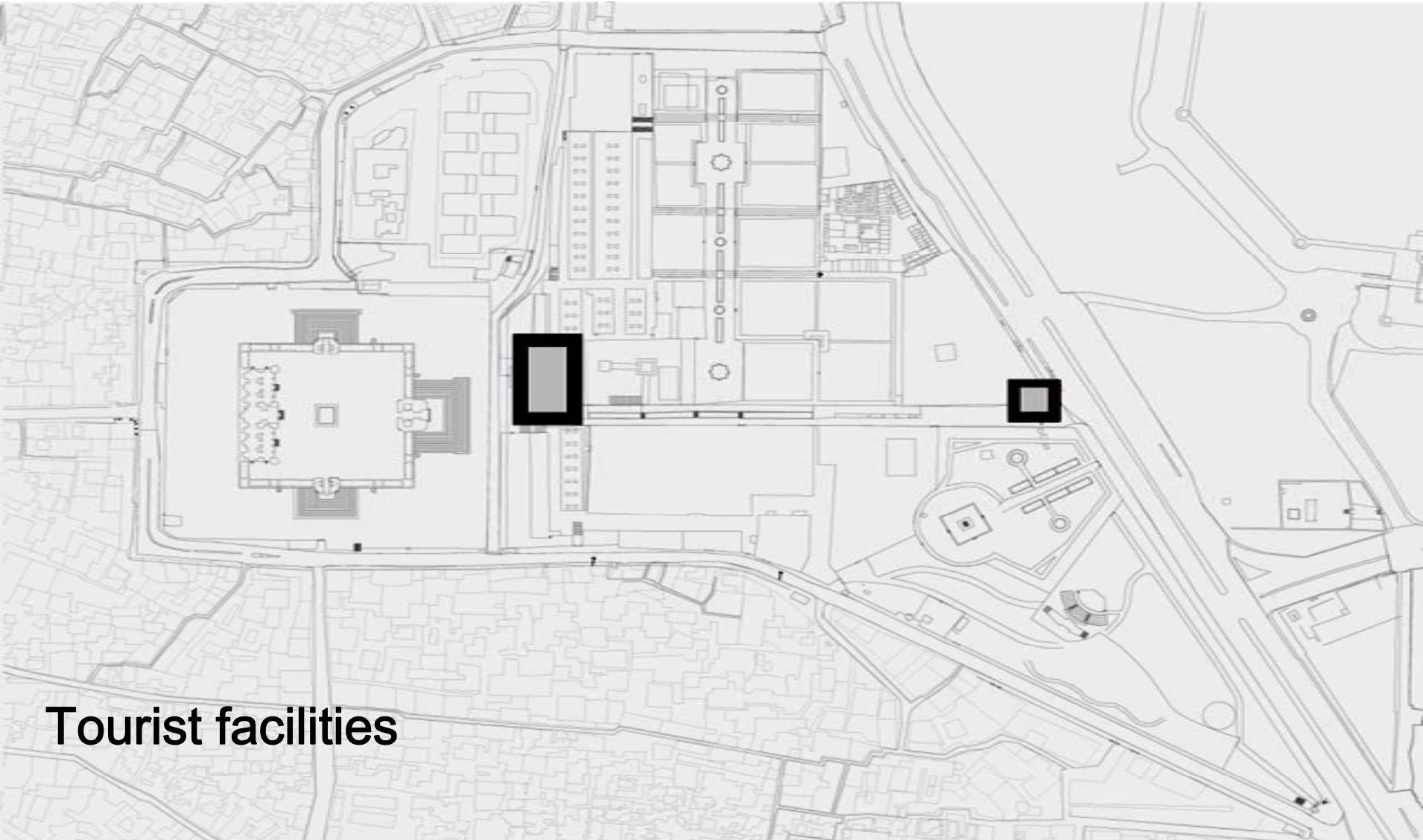
Pedestrian zone



Redevelopment of Maulana Azad Mazaar



Spaces for informal commercial activities






Tourist facilities

Proposal



Legend:

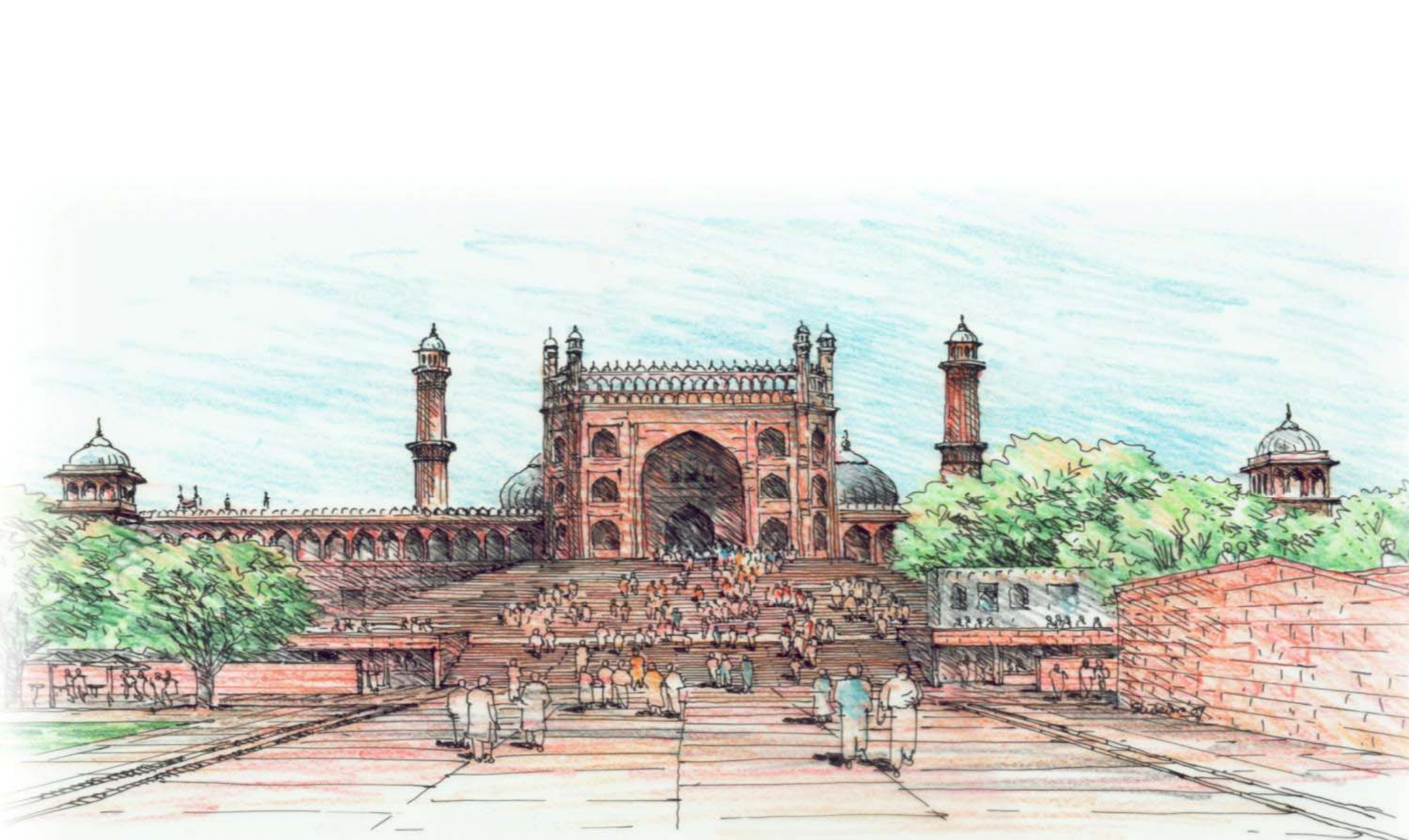
1. Upper Level Walkway
2. Extended Upper Plinth
3. *Mazaar* *Sufi Sarmad & Hare Bbare Shab*
4. *Wuzu* for men
5. *Wuzu* for women & tourist interpretation centre
6. New pedestrian link from *Paiwalan*
7. Forecourt for North entry to Mosque & accessible parking
8. Loading / unloading area
9. *Meena Bazaar*
10. *Mazaar* *Mahana Azad*
11. *Mazaar* *Baba Ubbrey Shab*
12. *Mazaar* *Gen Shab Nawaz*
13. Plaza for multipurpose activities
14. *Dangal Ground*
15. *Dargah*
16. Park
17. *Netaji Subhash Chandra Bose's Statue*
18. Urdu Park
19. Urdu Bazaar plaza with food court and amenities below
20. Space for *Tabbarukh*
21. Ramps to utilities basement
23. Entry to the Precinct
24. Open space for community use
25. *Dargah* *Sheikh Kallimullah*
26. New pedestrian link to Red Fort
27. Vehicular overpass
28. Pedestrian entries to *Jama Masjid* Precinct
29. School
30. Police Station
31. Fire Station
32. Security & Information Posts
33. Northern Entry of *Jama Masjid*
34. Basement for Electric Substation, Water pumping station & other services

-  Existing Trees
-  Proposed Trees
-  Public Amenities -
Accessible/Male/Female Toilet

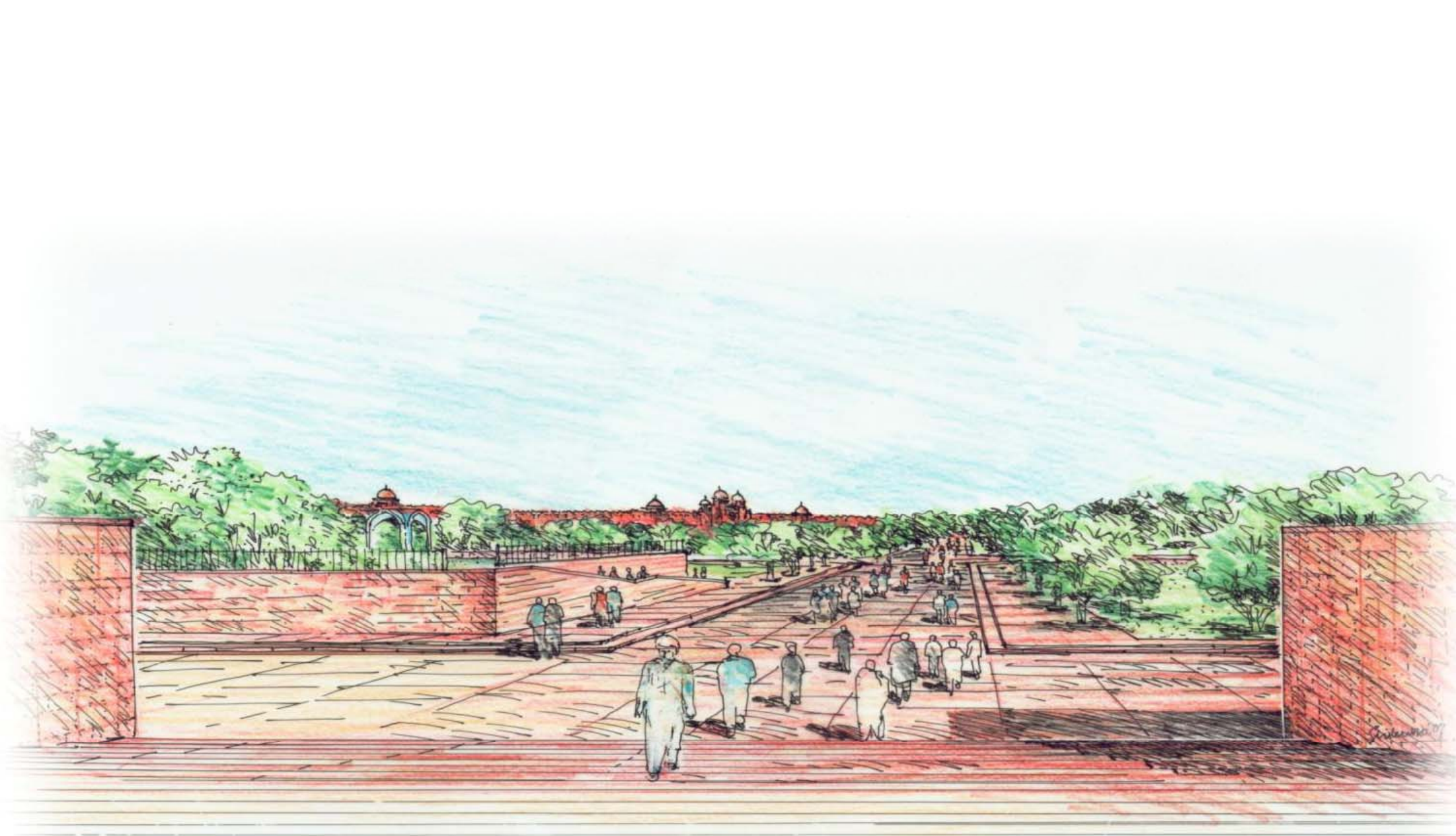
NOTE:

1. All new construction and development proposed is subject to amendments in case archaeological remains of significance are discovered after excavation work is started at site. The amendments would be carried out after consultation with all statutory bodies.
2. The proposed development of the '*Saadullah Chowk*' and link to Redfort will be modified in the event of a more accurate finding of the original location and route.

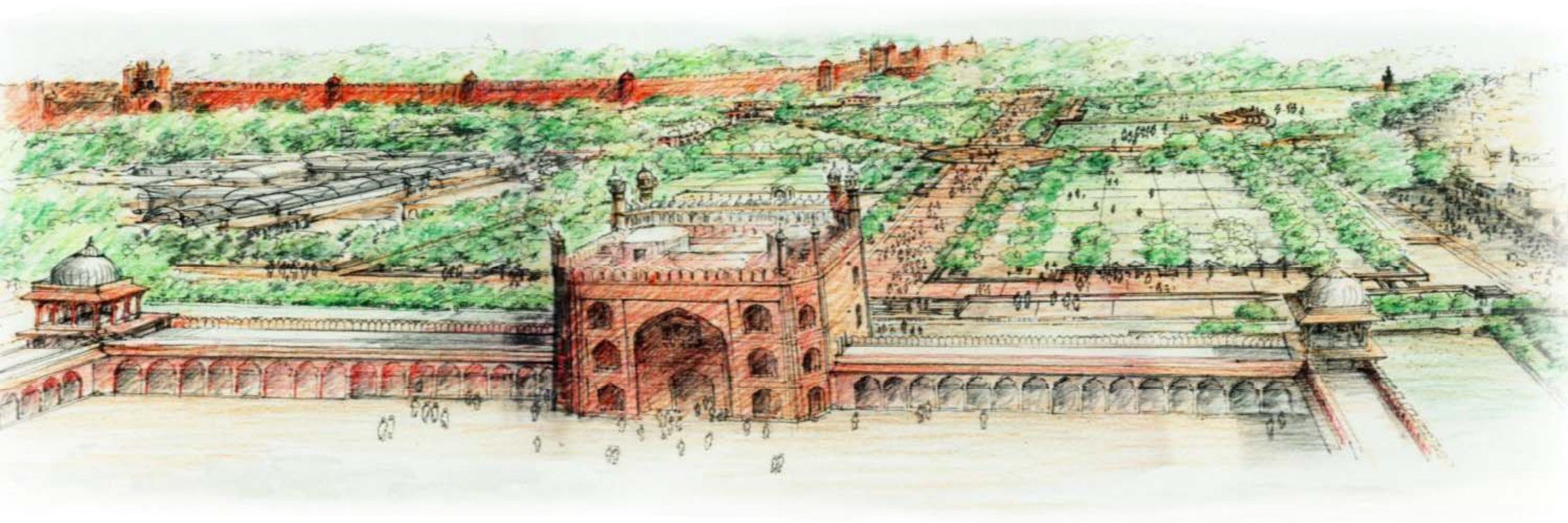






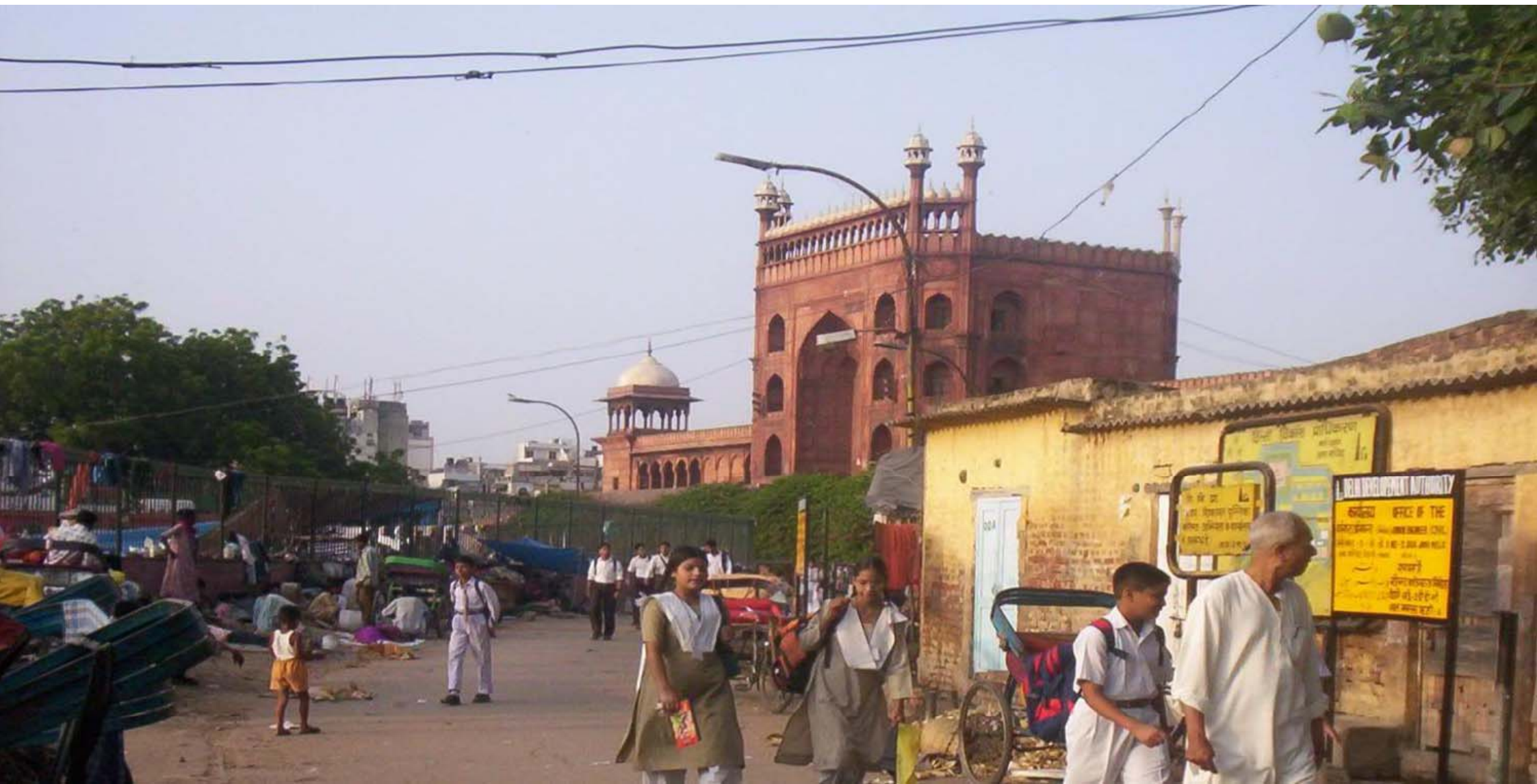


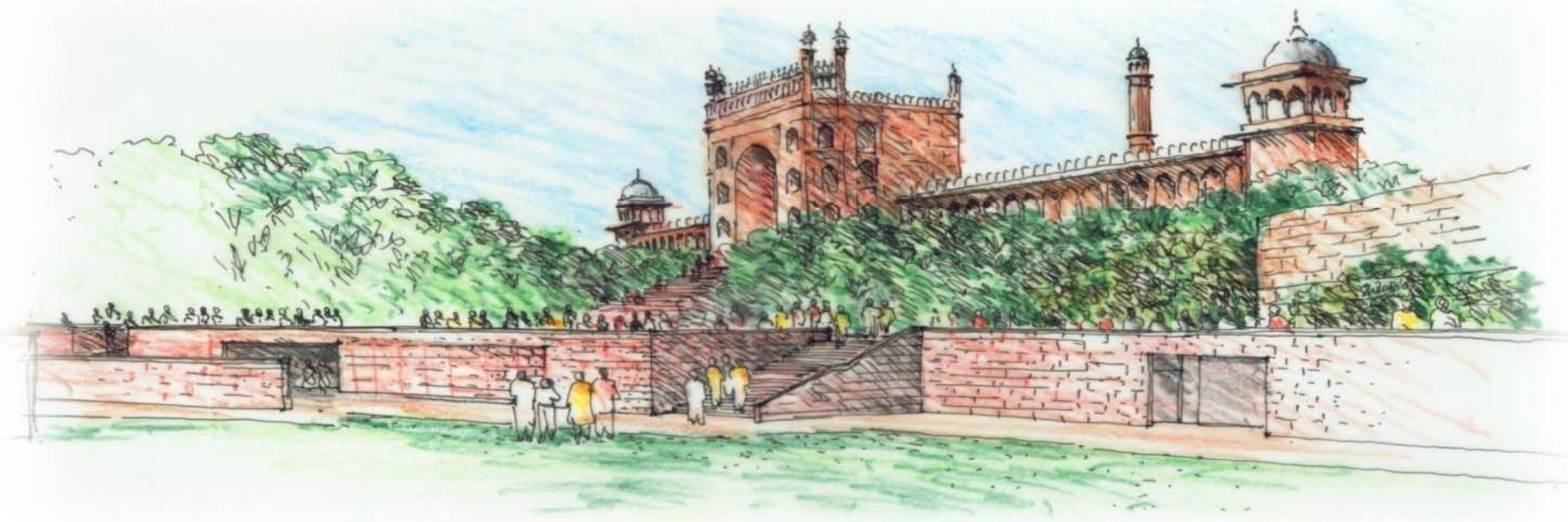








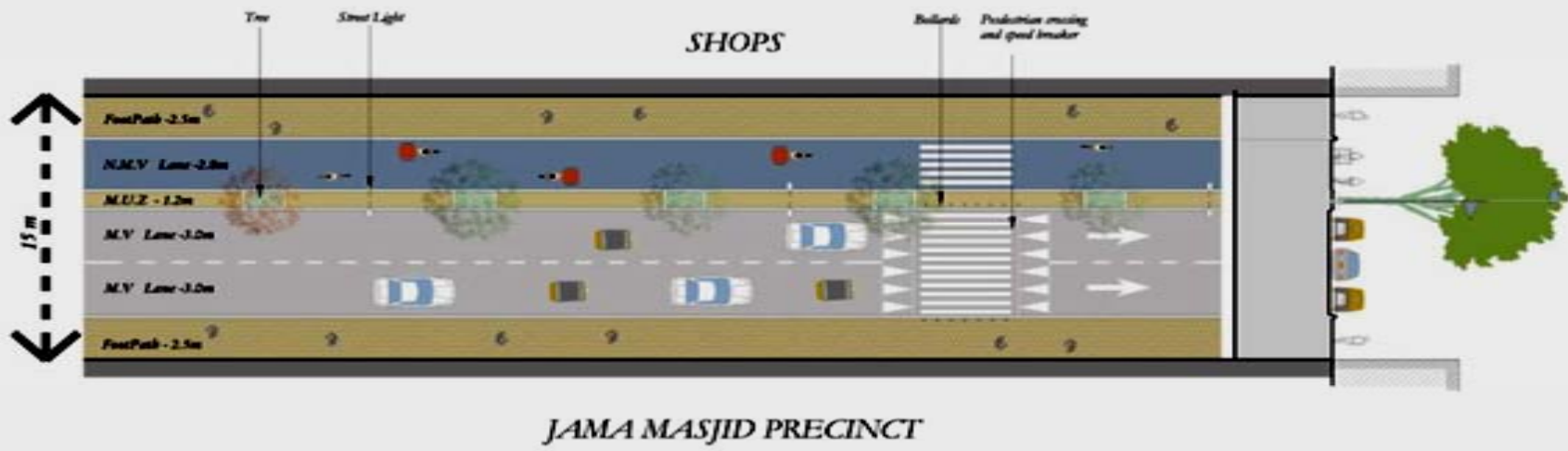
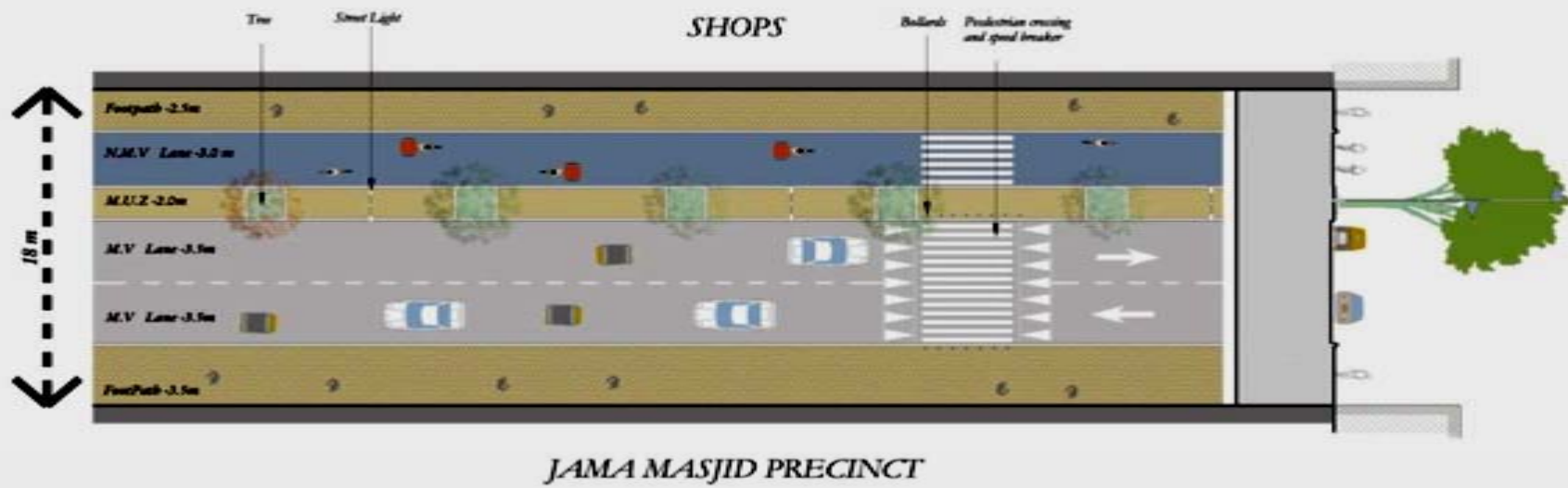


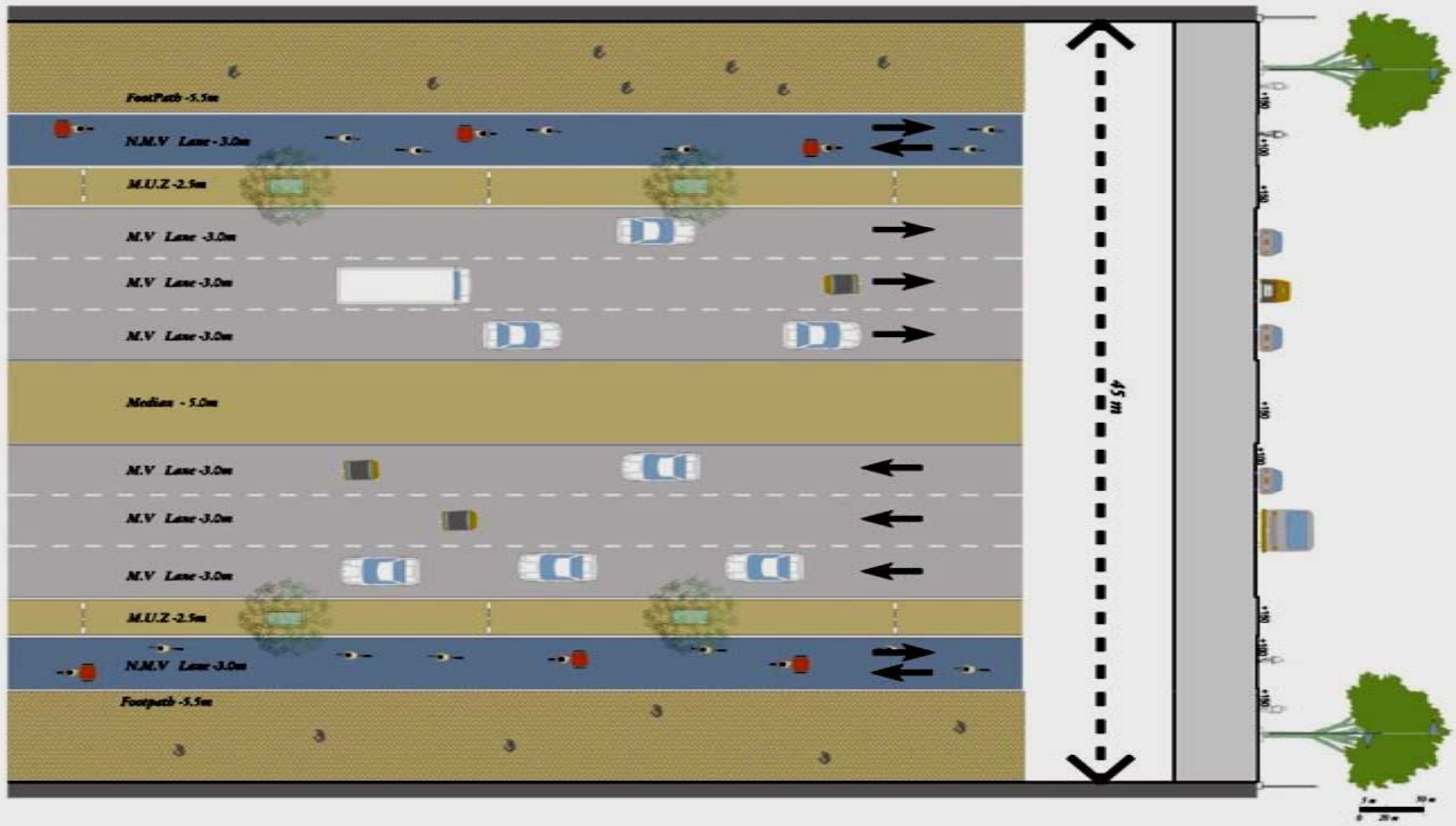


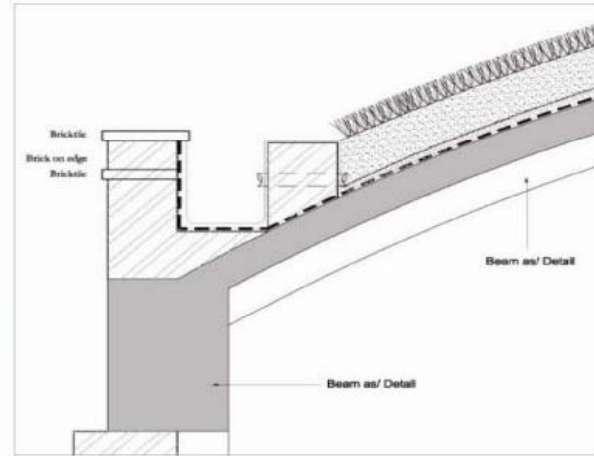
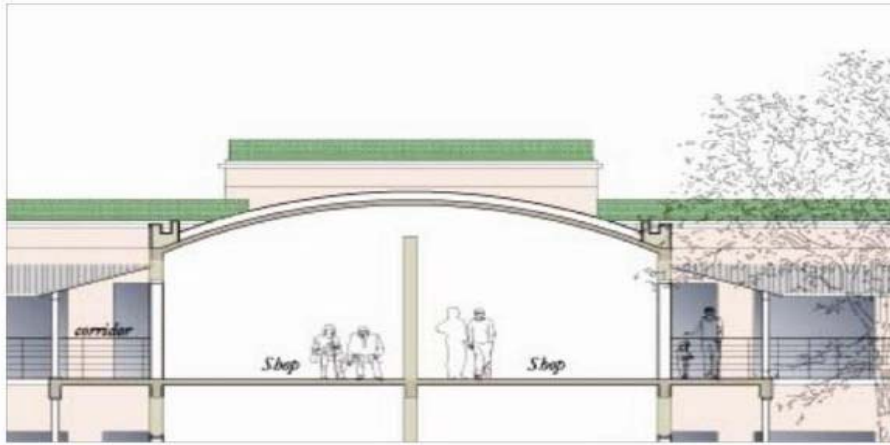
मीना बाजार जामा मस्जिद में आपका स्वागत है।
مینا بازار جامع مسجد میں آپکا خیر مقدم ہے
WELCOME TO MEENA BAZAR JAMA MASJID









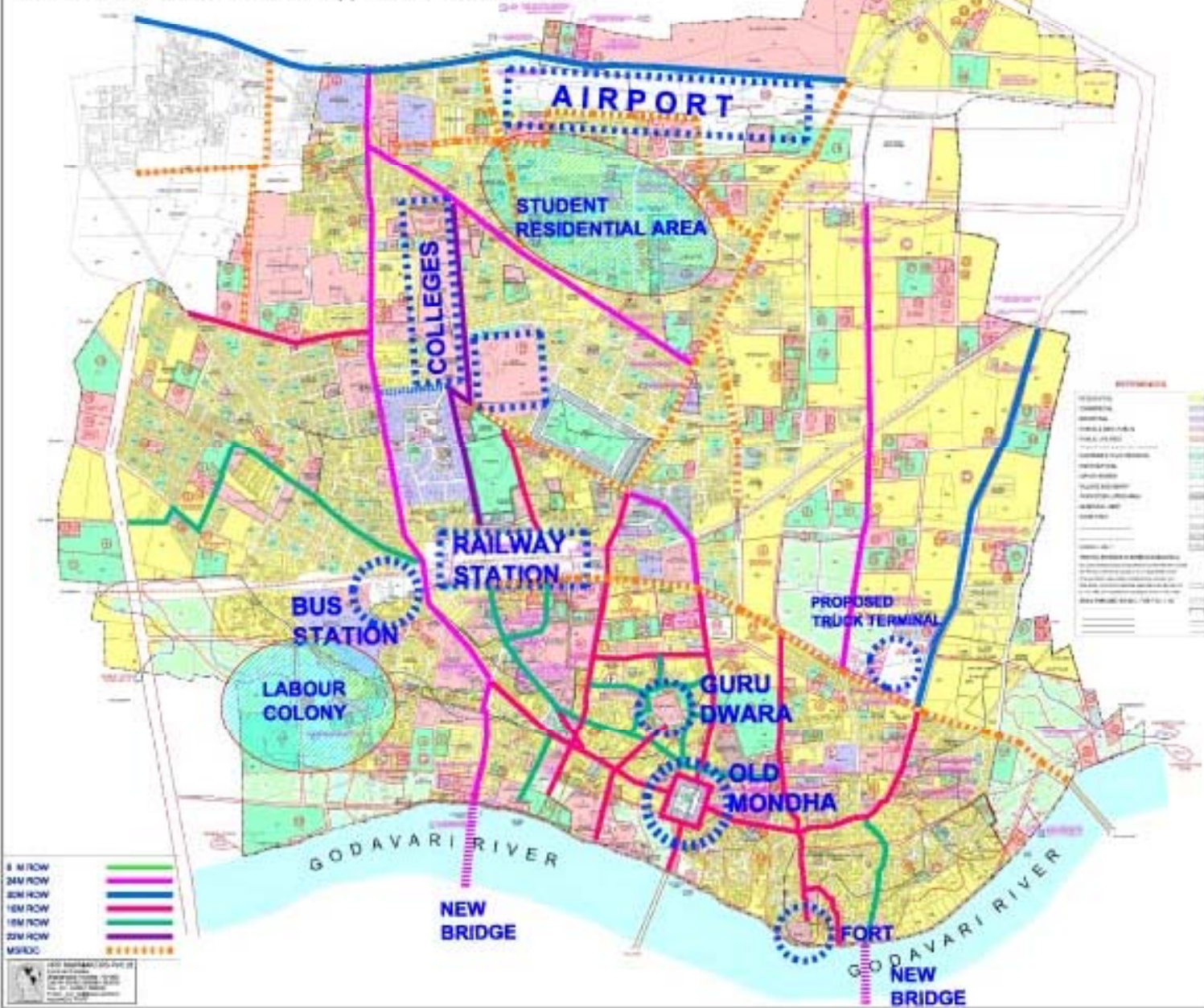


Green roofs - Meena Bazaar



Arterial Street Network, Nanded

REVISED DEVELOPMENT PLAN OF
 NANDED
 PROPOSED LAND USE PLAN
 SUBMITTED UNDER SECTION 30 (I) OF M.R. & T.P. ACT 1966



LEGEND

- 30M ROW
- 24M ROW
- 18M ROW
- 15M ROW
- 22M ROW







Nanded Police
Helpline
9763001100 | 234720 | 100
Your Safety - Our Commitment

HERCULES

AXND

Nanded Police
Helpline
9763001100 | 234720 | 100
Your Safety - Our Commitment

HERCULES

Nanded Police
Helpline
9763001100 | 234720 | 100
Your Safety - Our Commitment

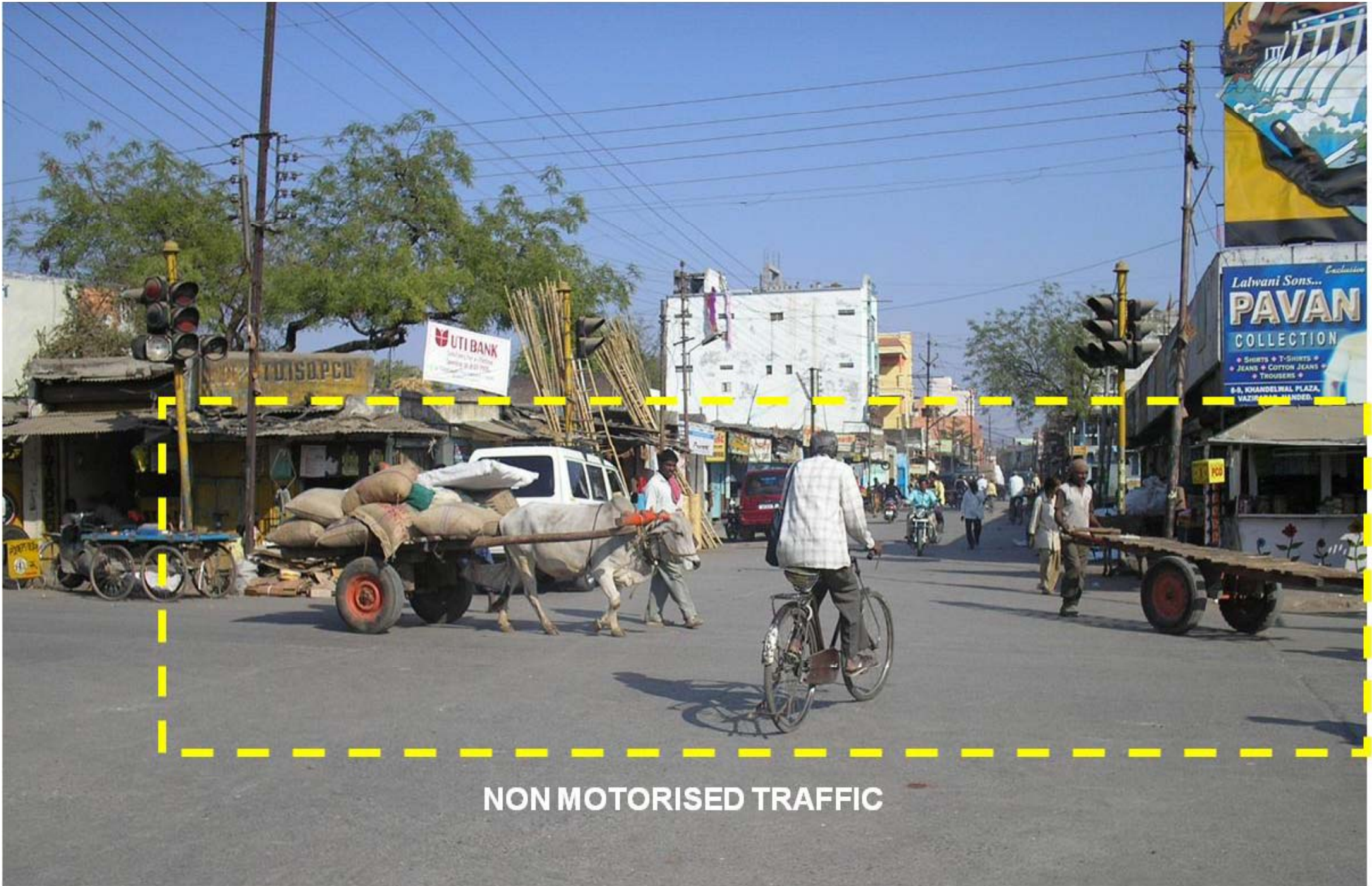
HERCULES

PEDESTRIAN ACTIVITIES

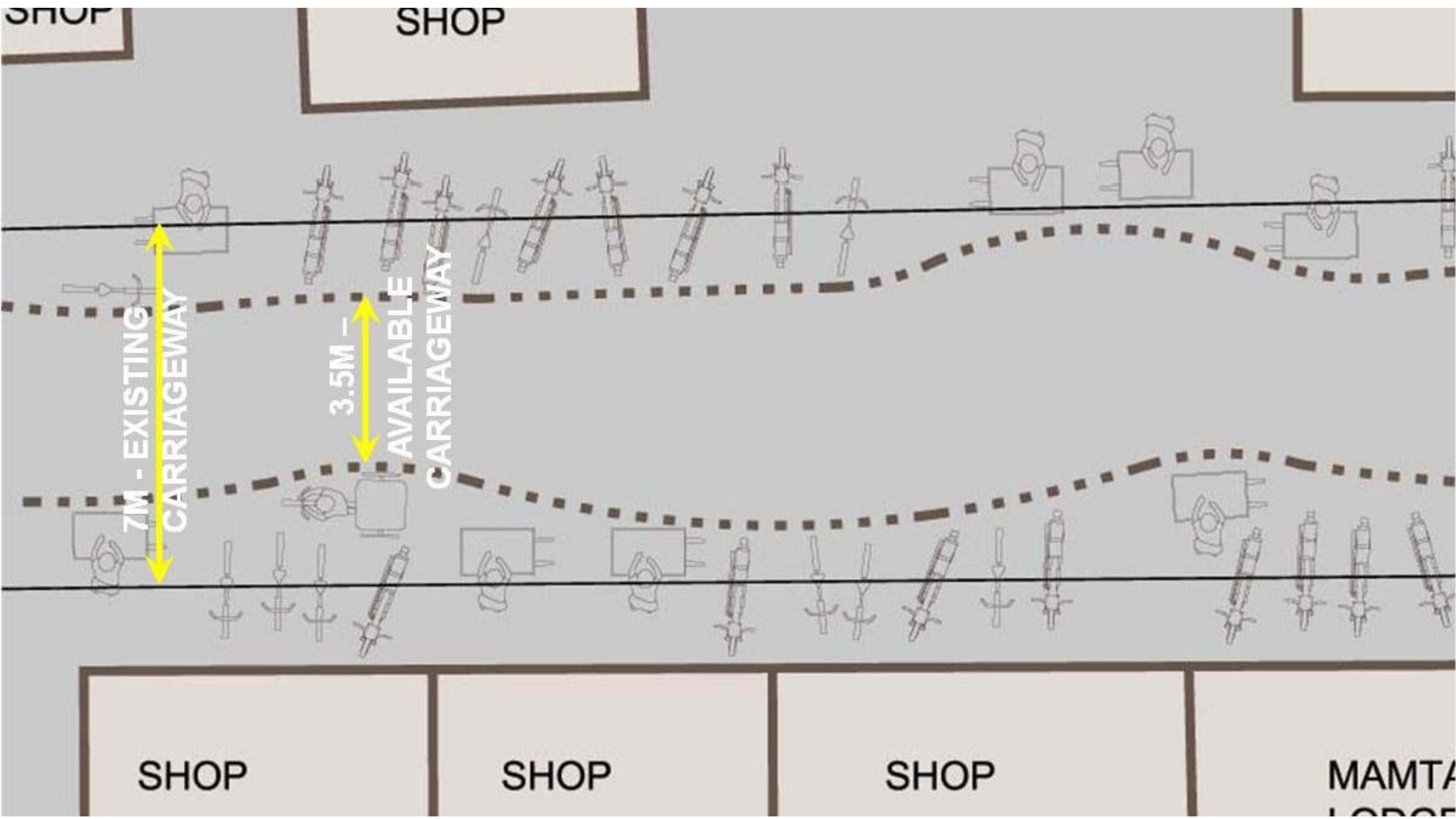




ON ROAD PARKING



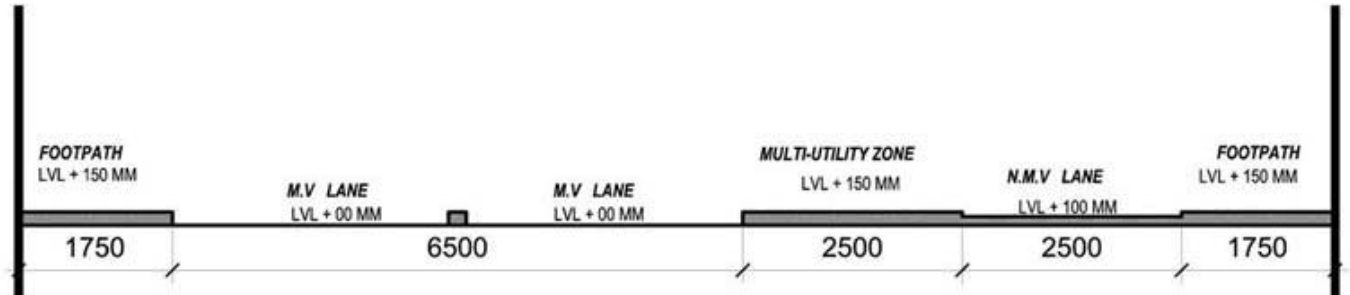
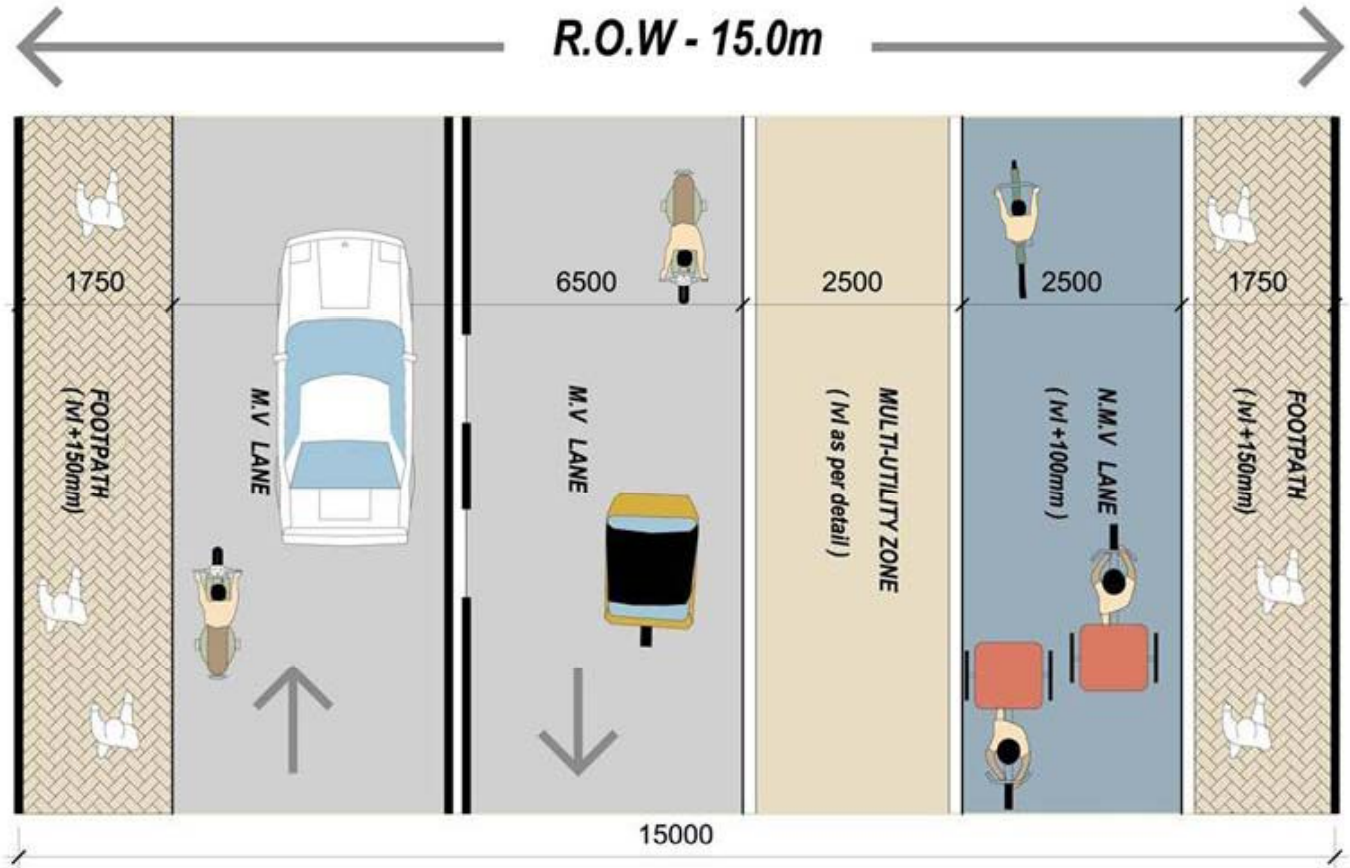
NON MOTORISED TRAFFIC



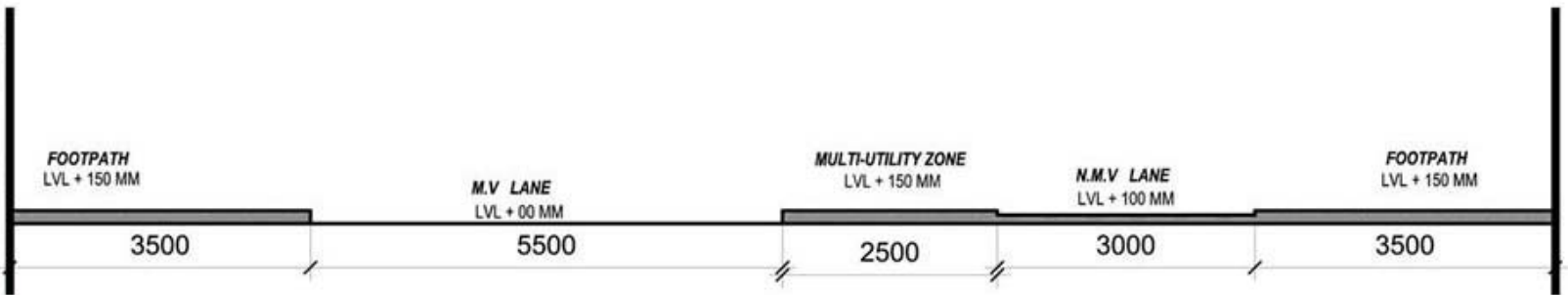
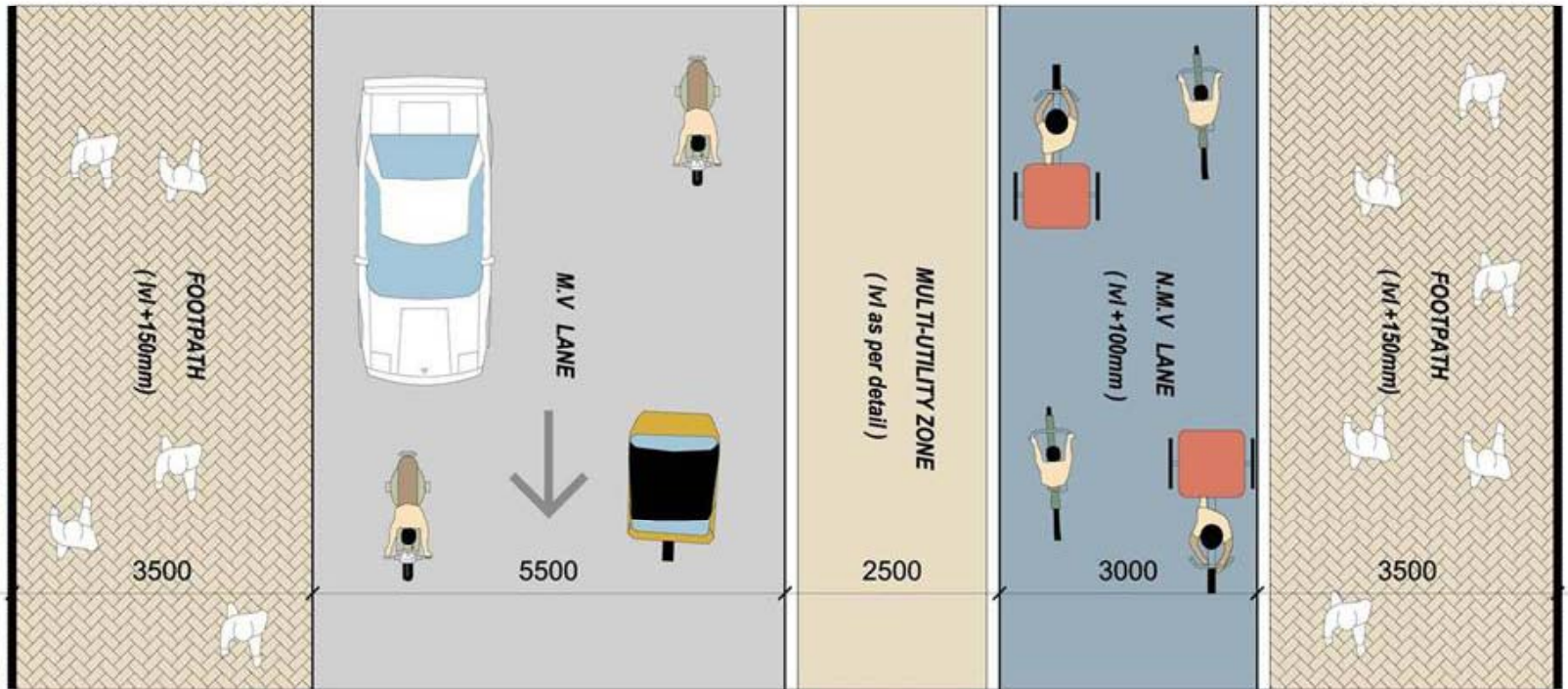
15.0m ROW

Two way street

Road no.1



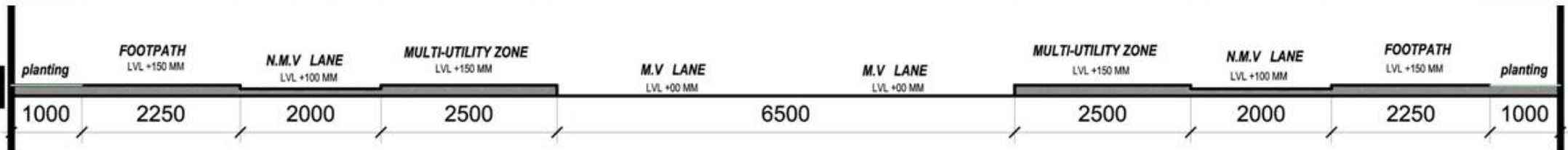
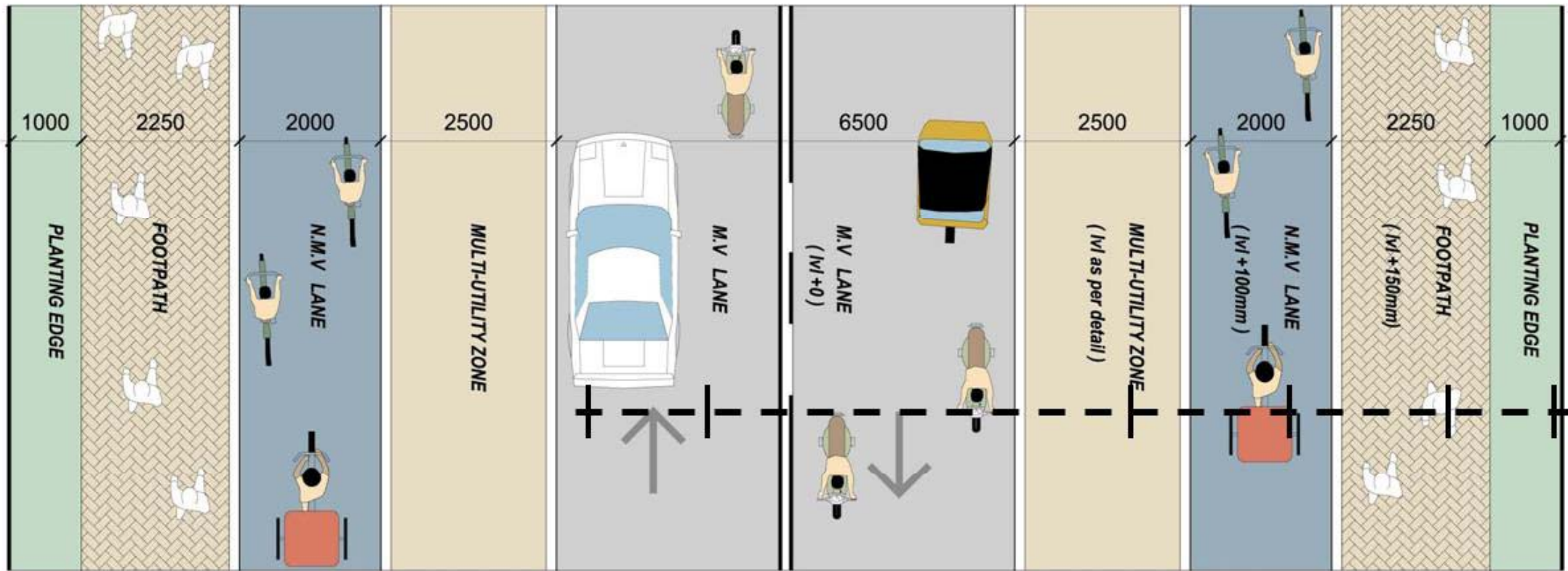
18.0m ROW
One way street
Road no. 8



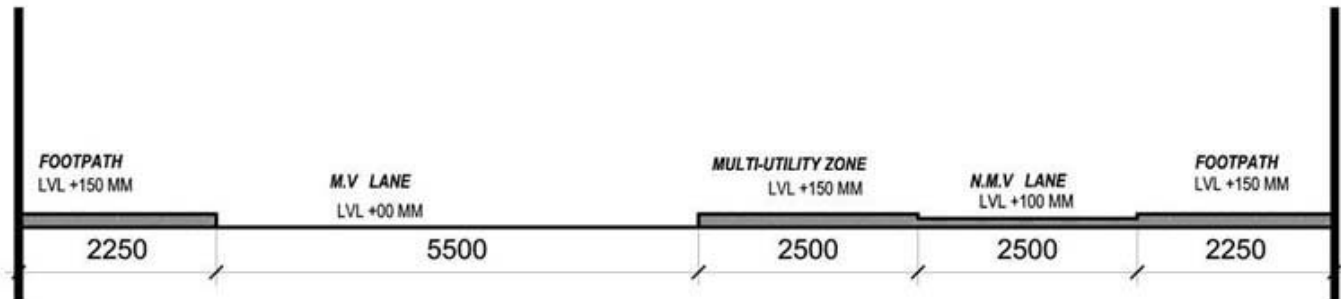
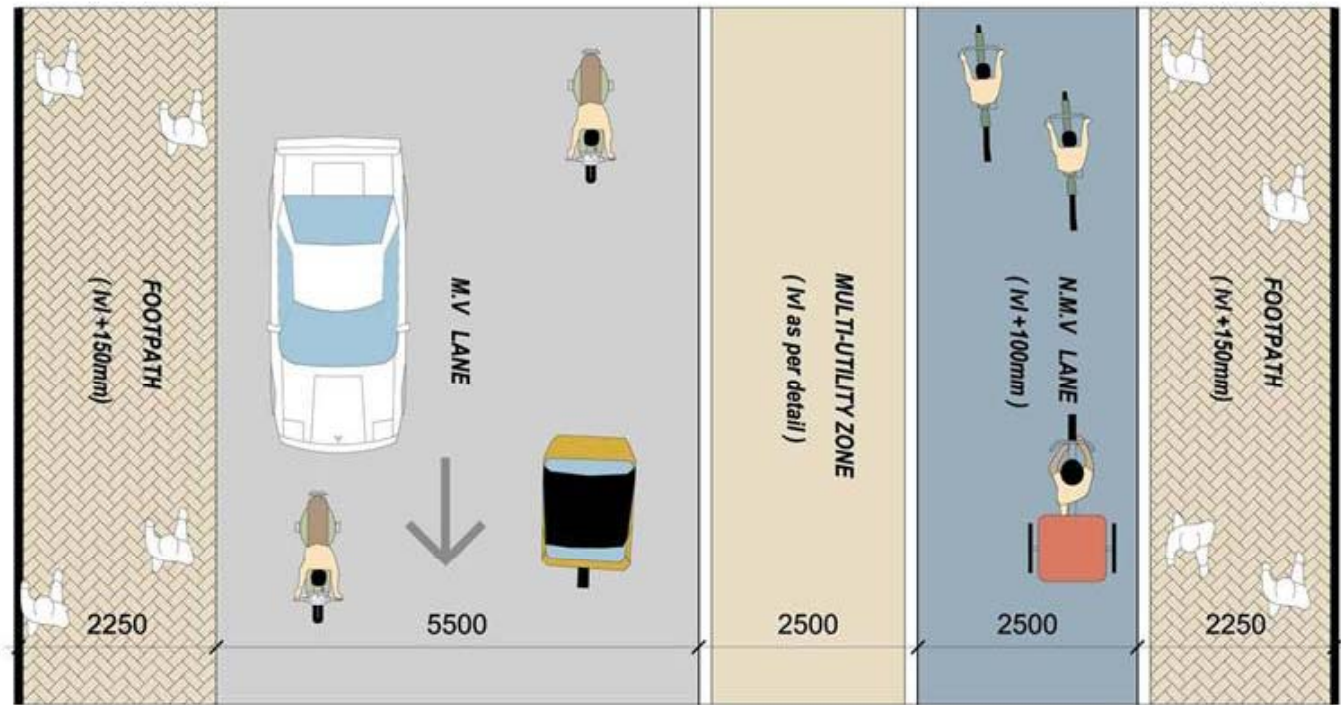
22.0m ROW

Two way street

Road no. 22



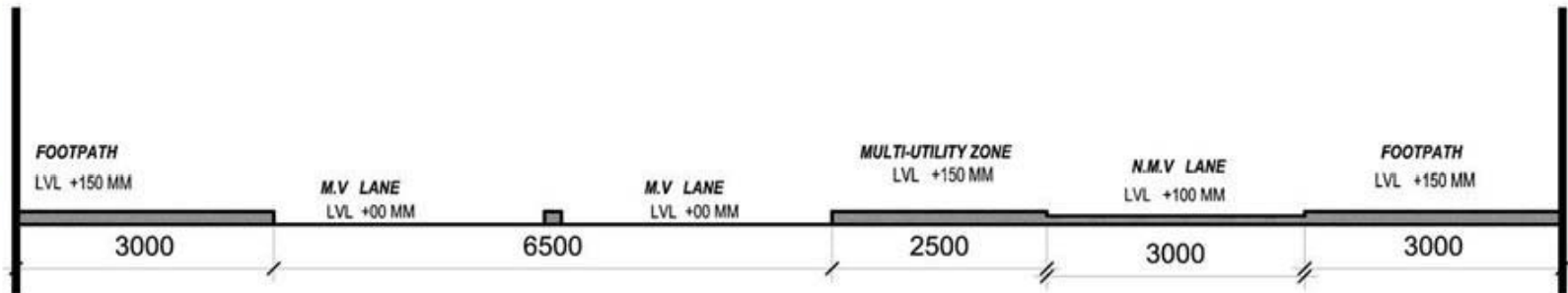
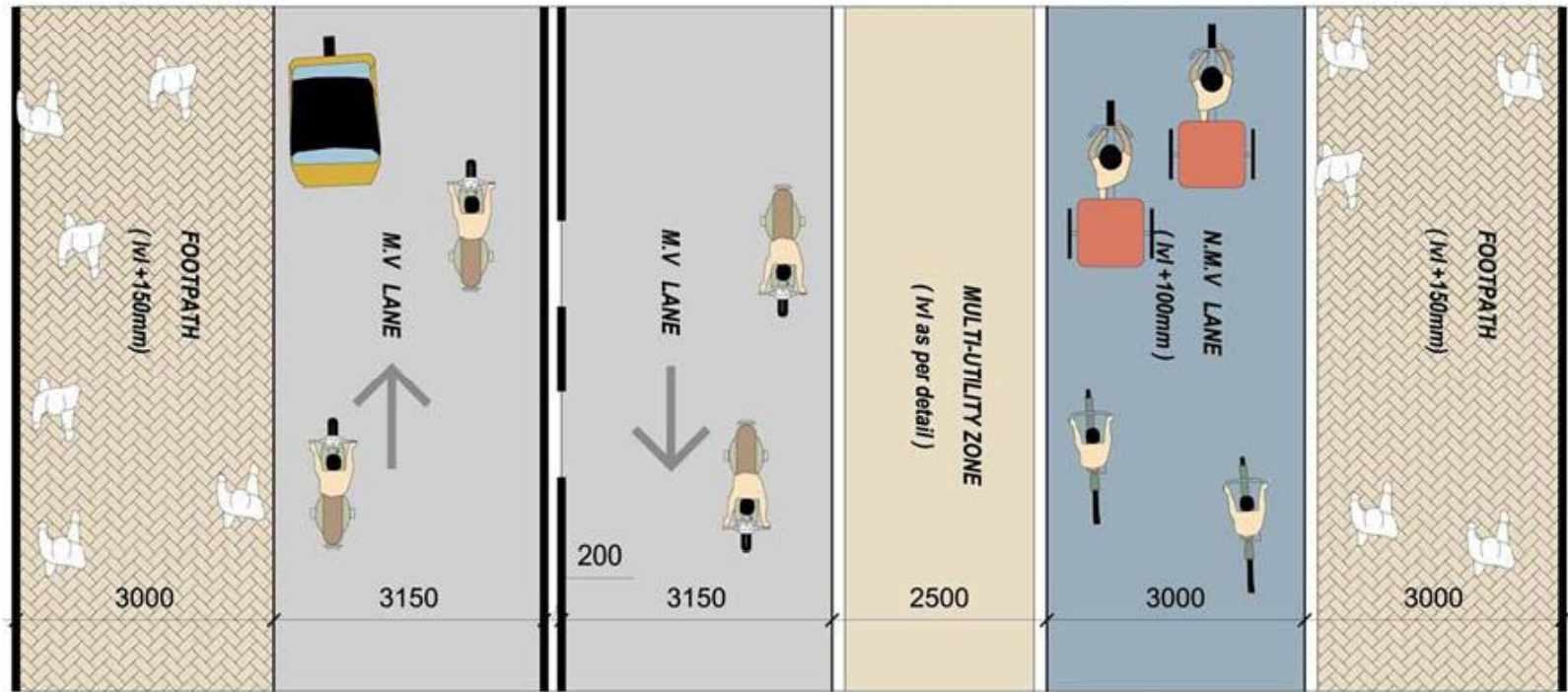
15.0m ROW
One way street
Road no.2&3



18.0m ROW

Two way street

Road no.28



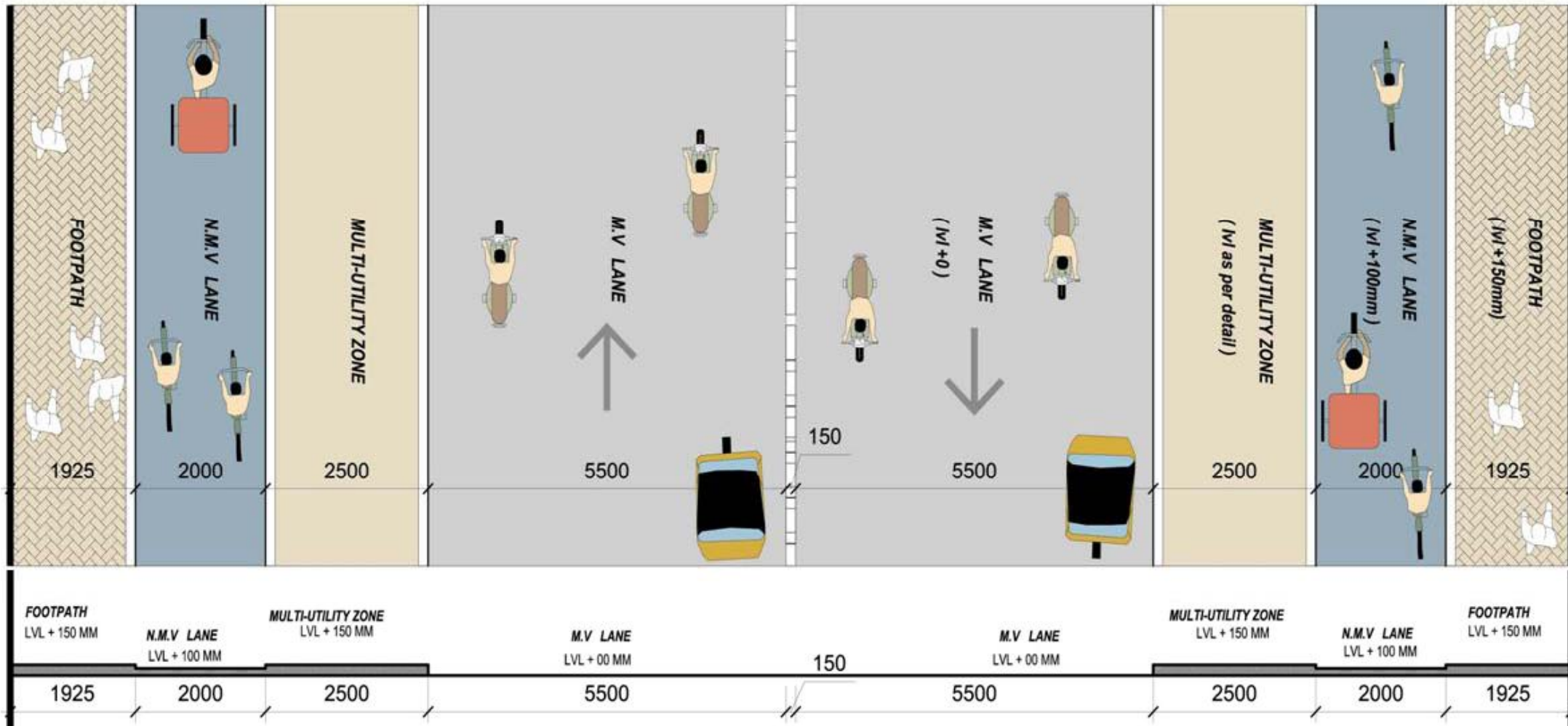
24.0m ROW

Two way street

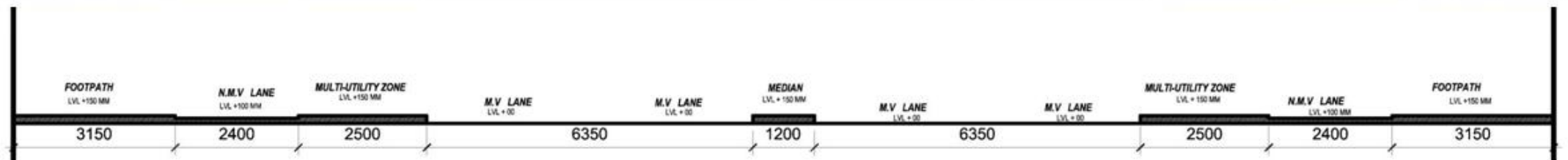
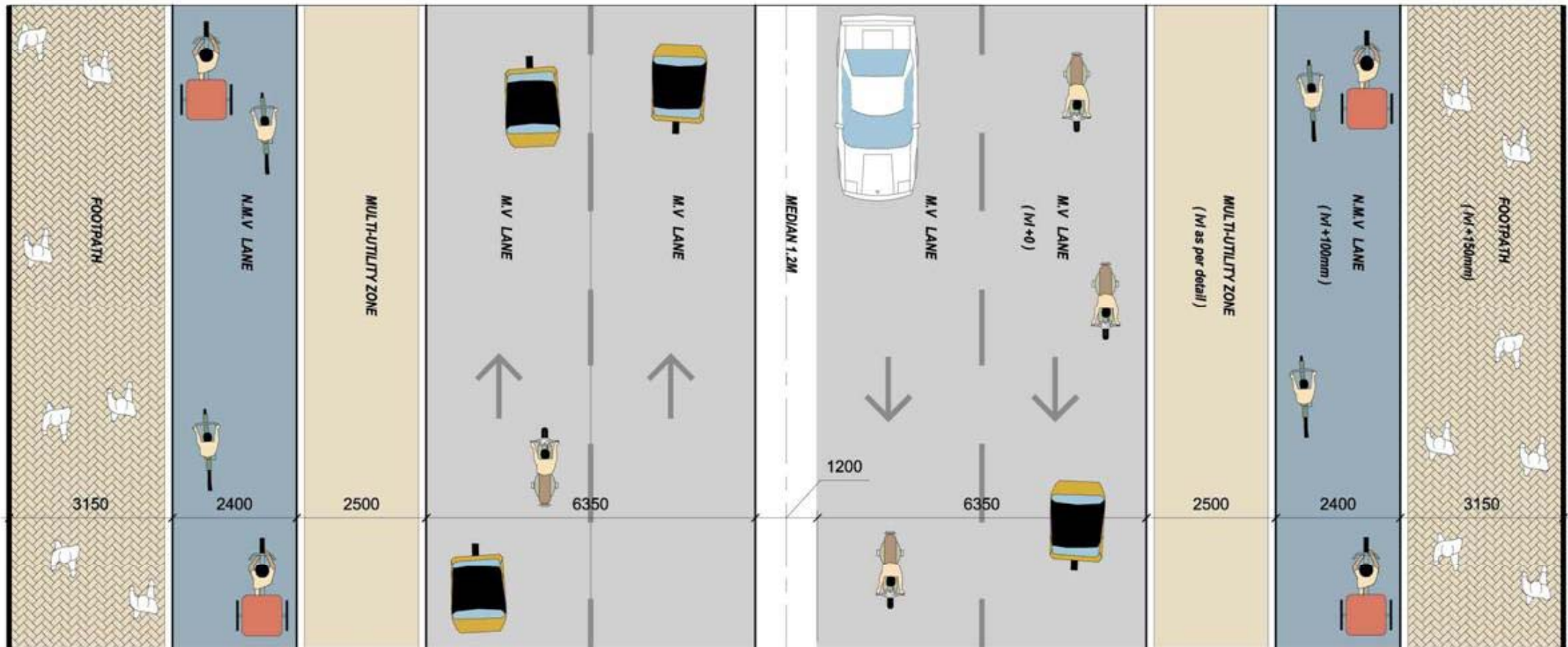
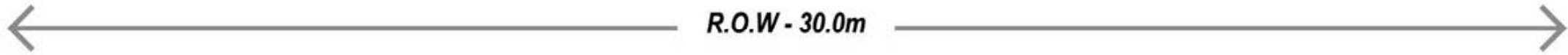
Road no.7



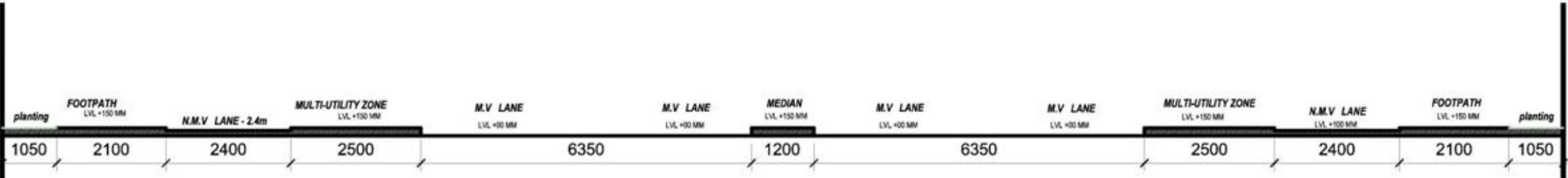
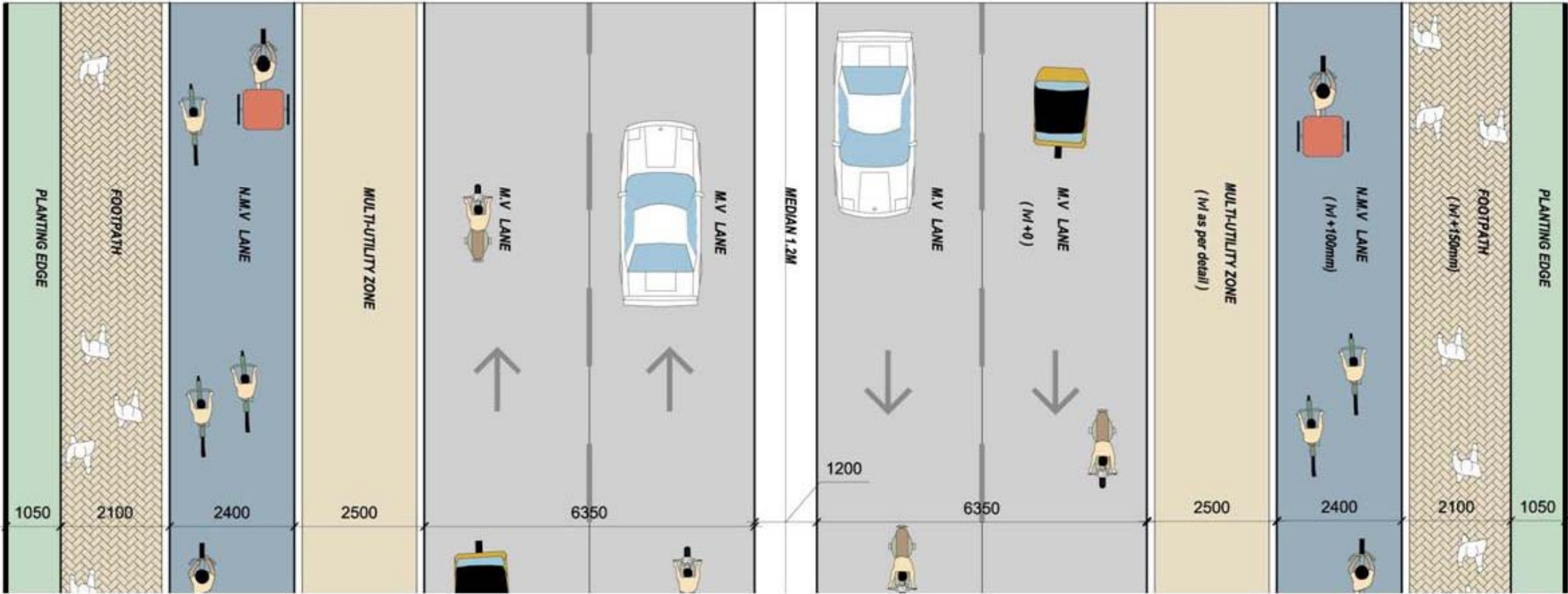
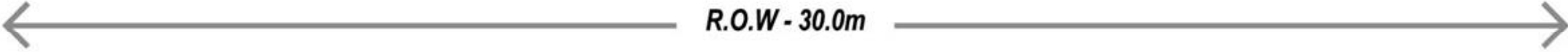
R.O.W - 24.0m



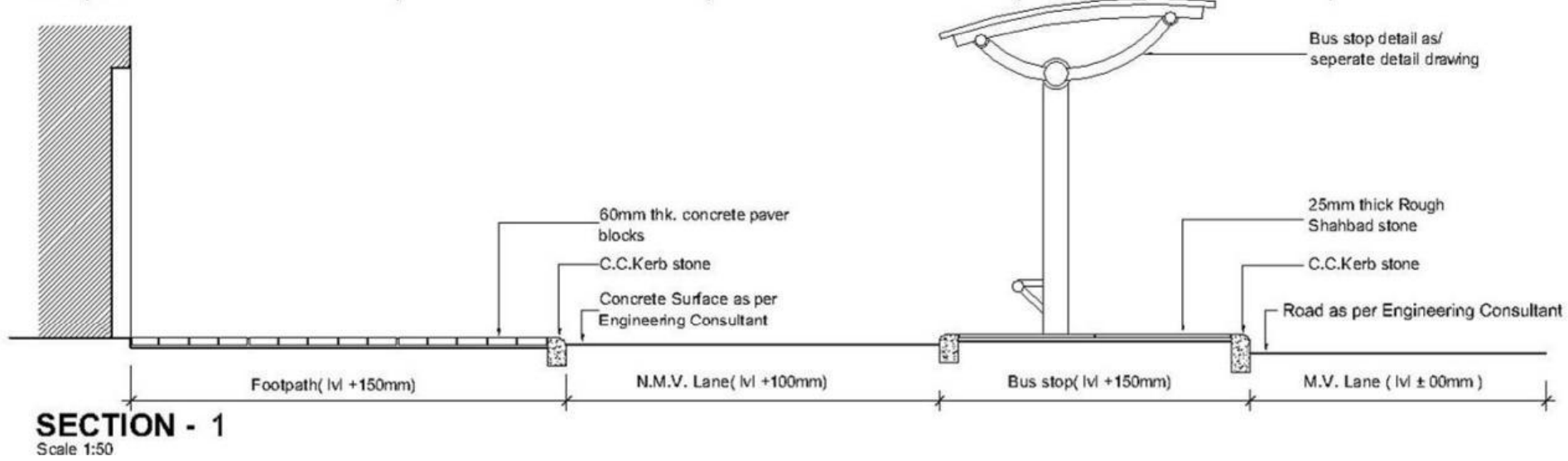
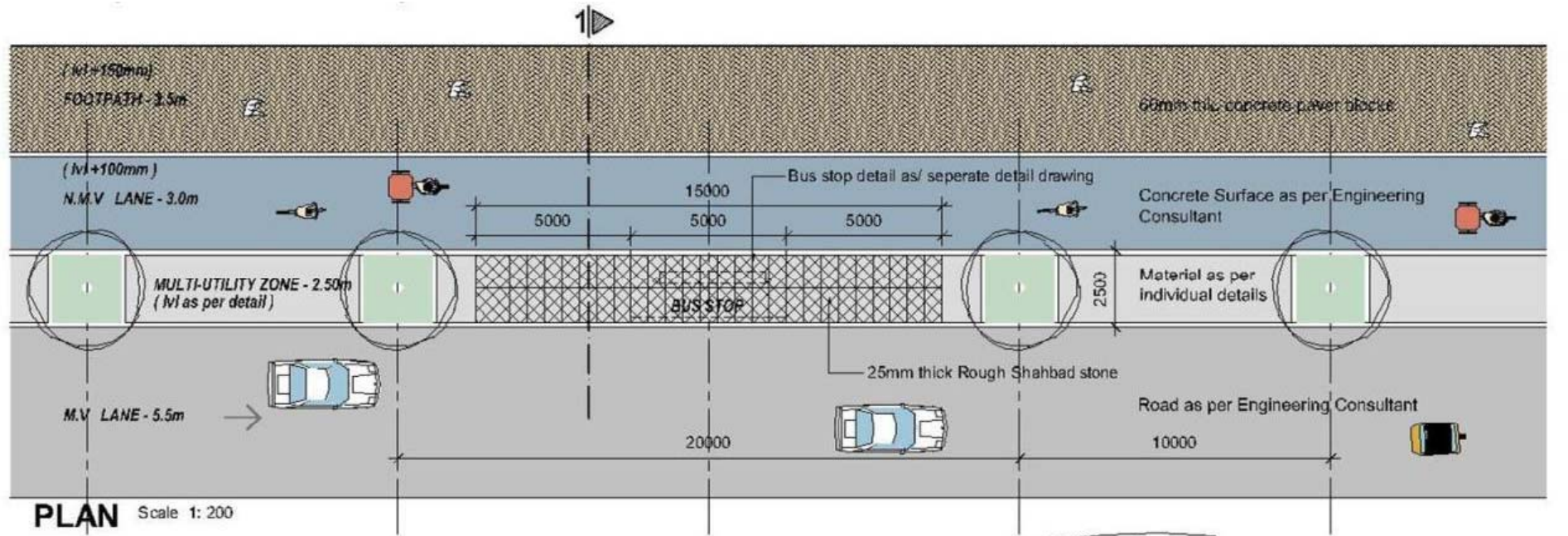
30.0m ROW ,Two way street, Road no.32



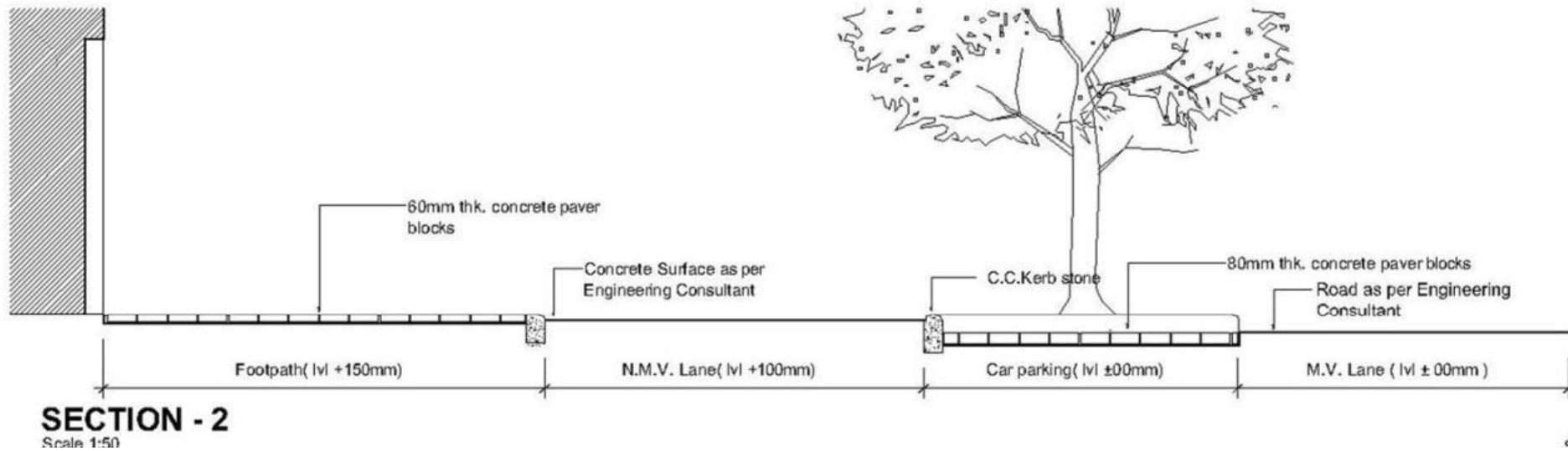
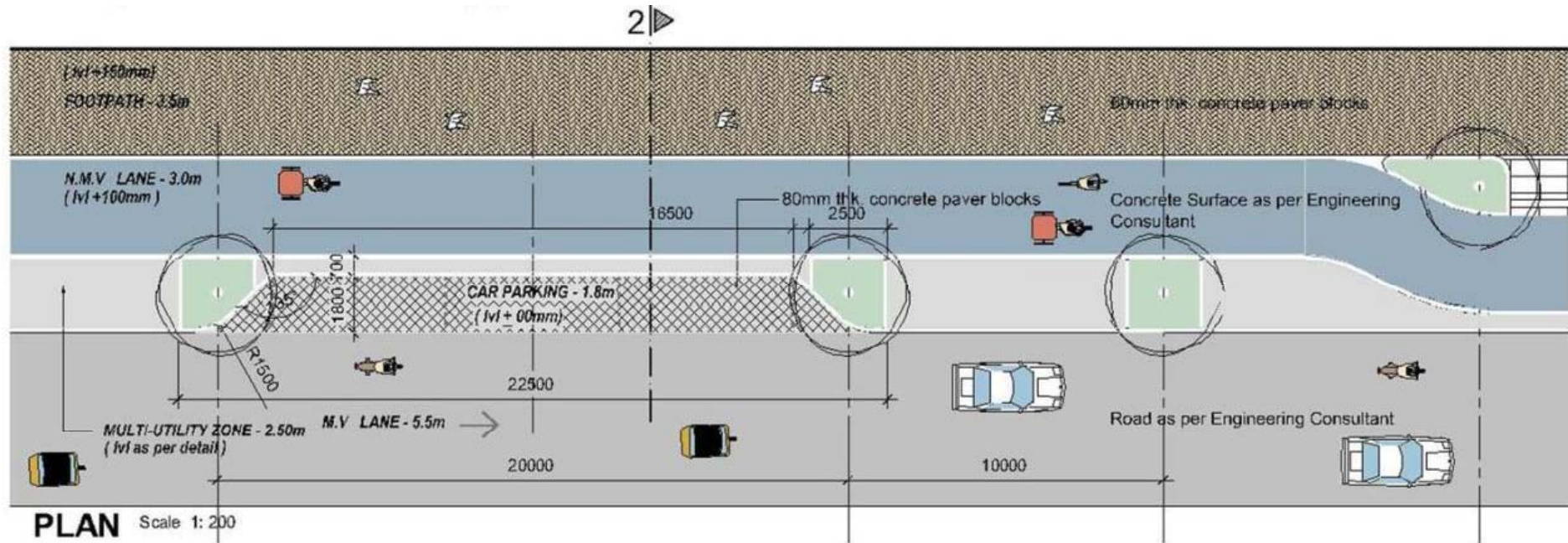
30.0m ROW ,Two way street, Road no.32



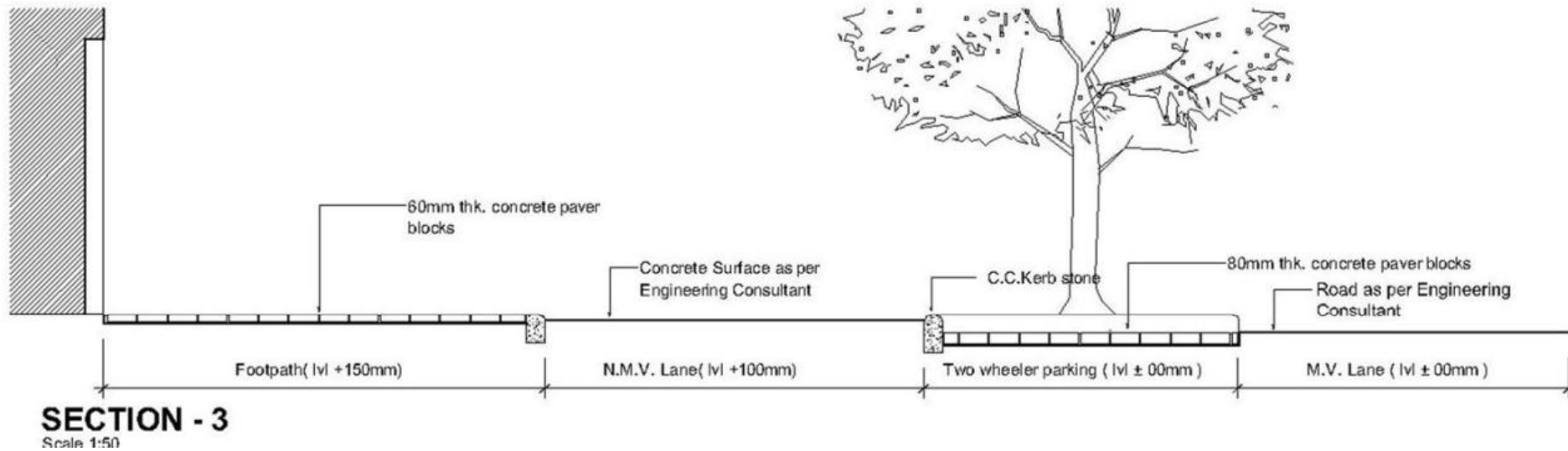
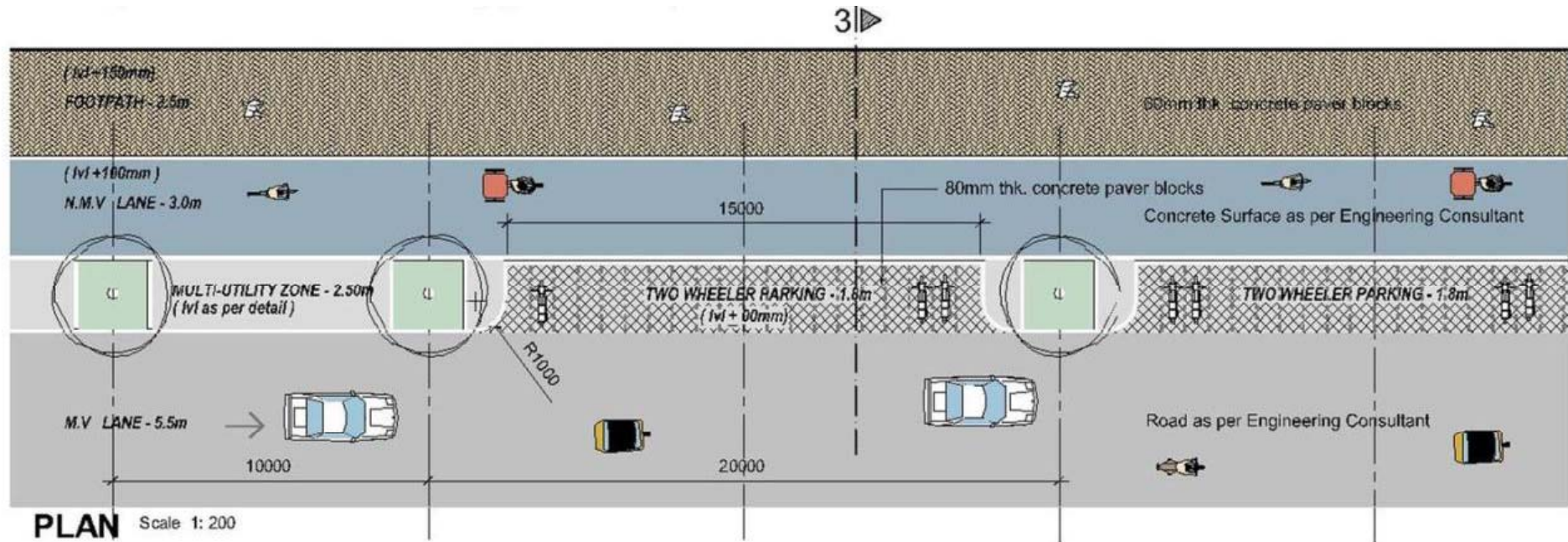
Bus Stop



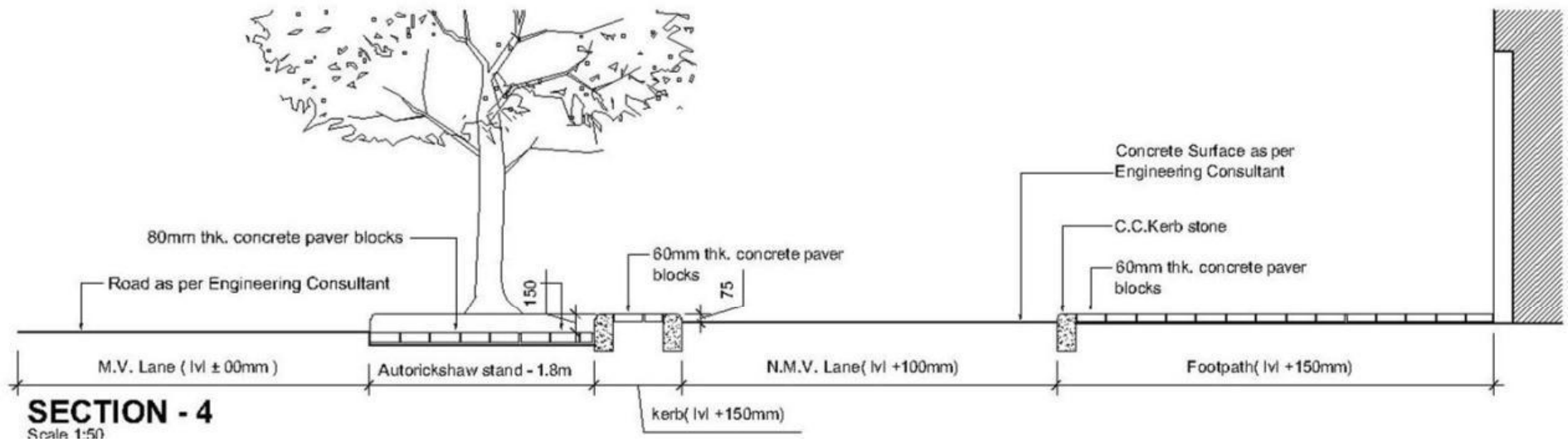
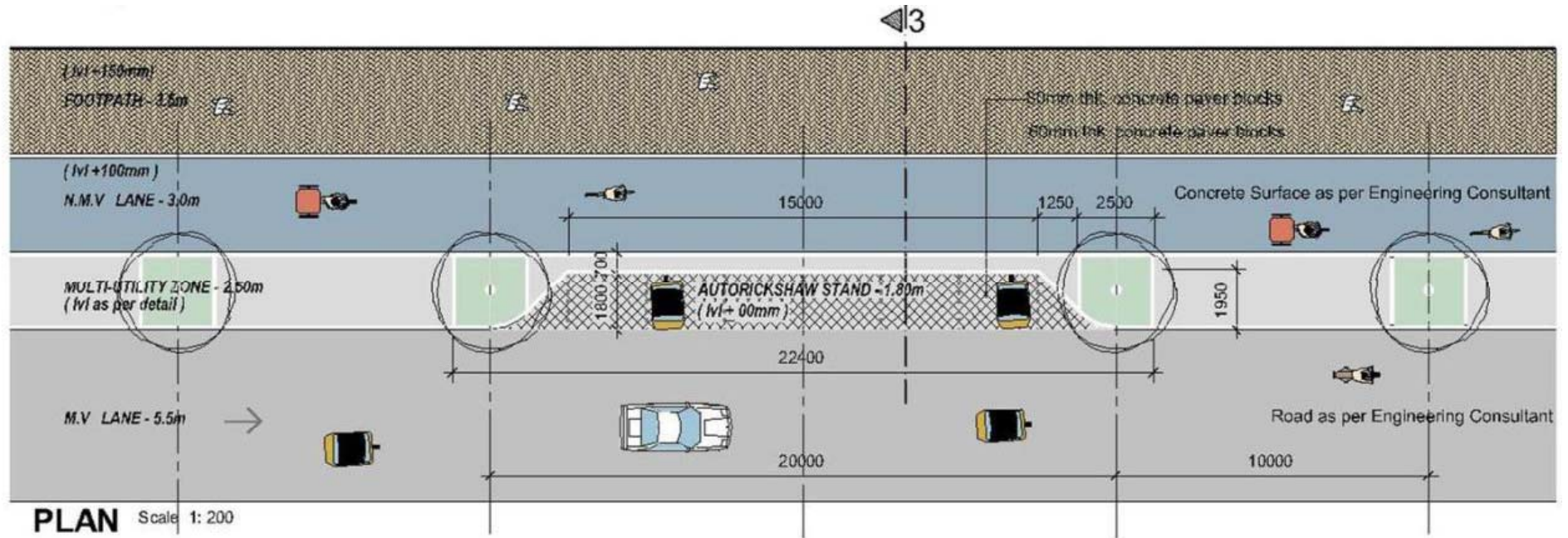
MV Parking - 4 Wheeler



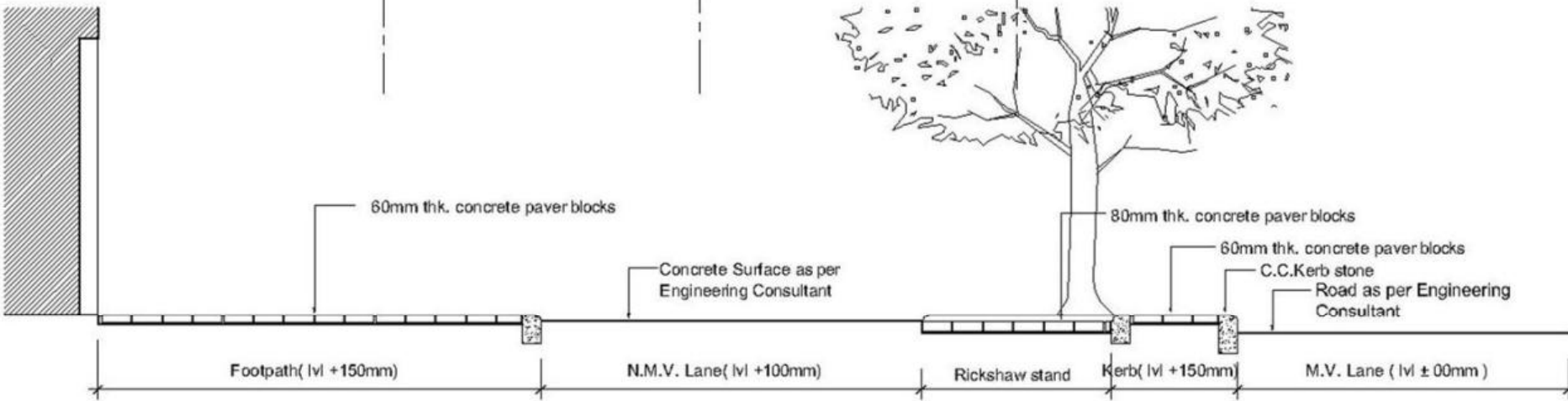
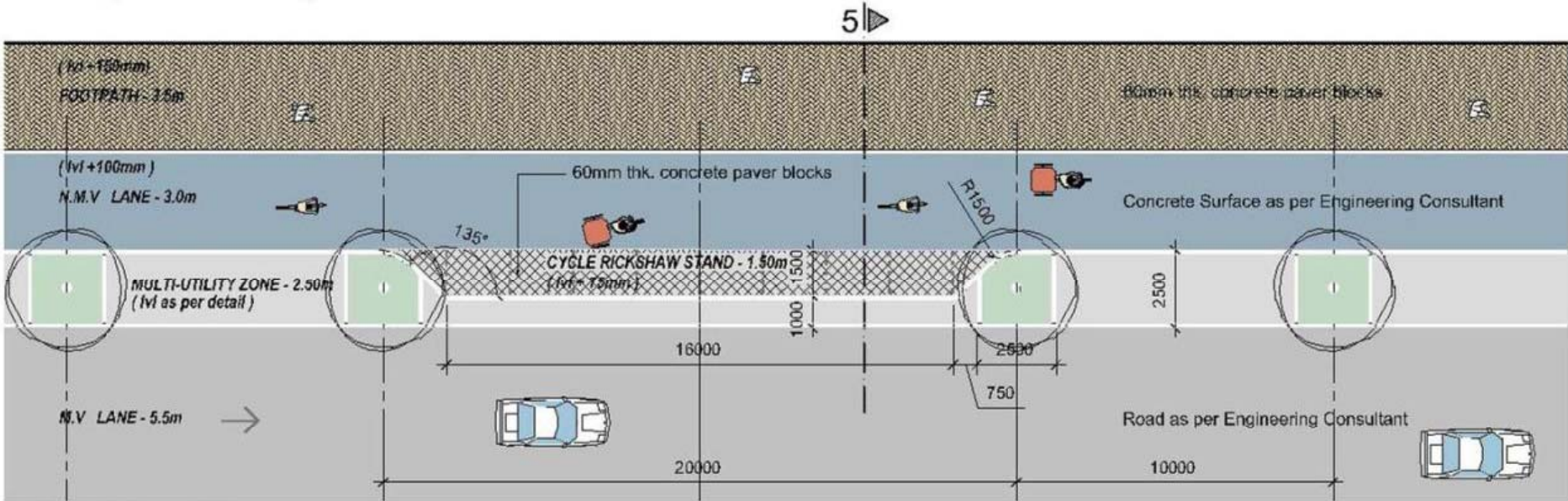
MV Parking - 2 Wheeler



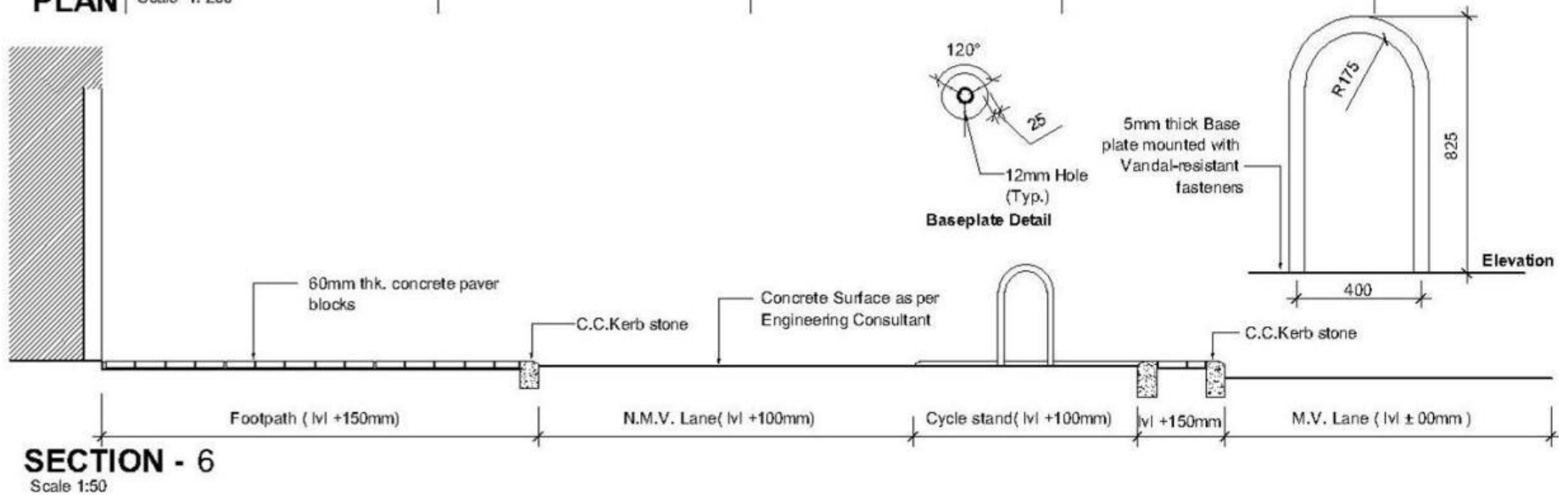
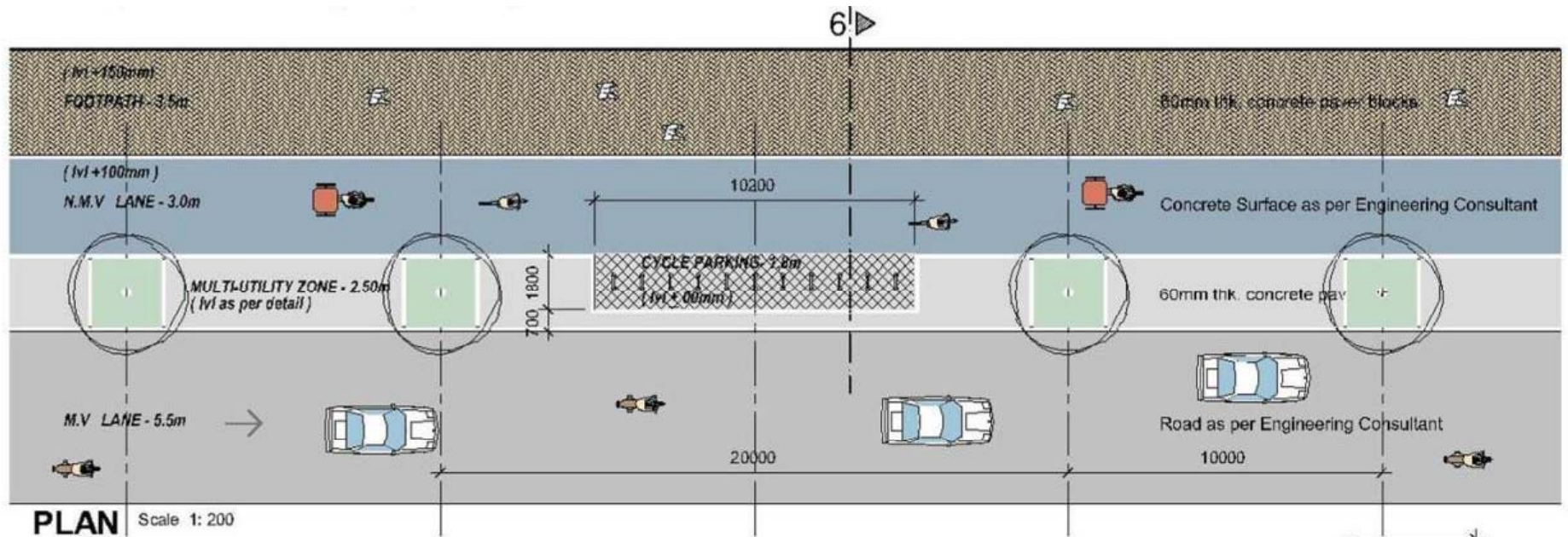
Auto-Rickshaw Stand



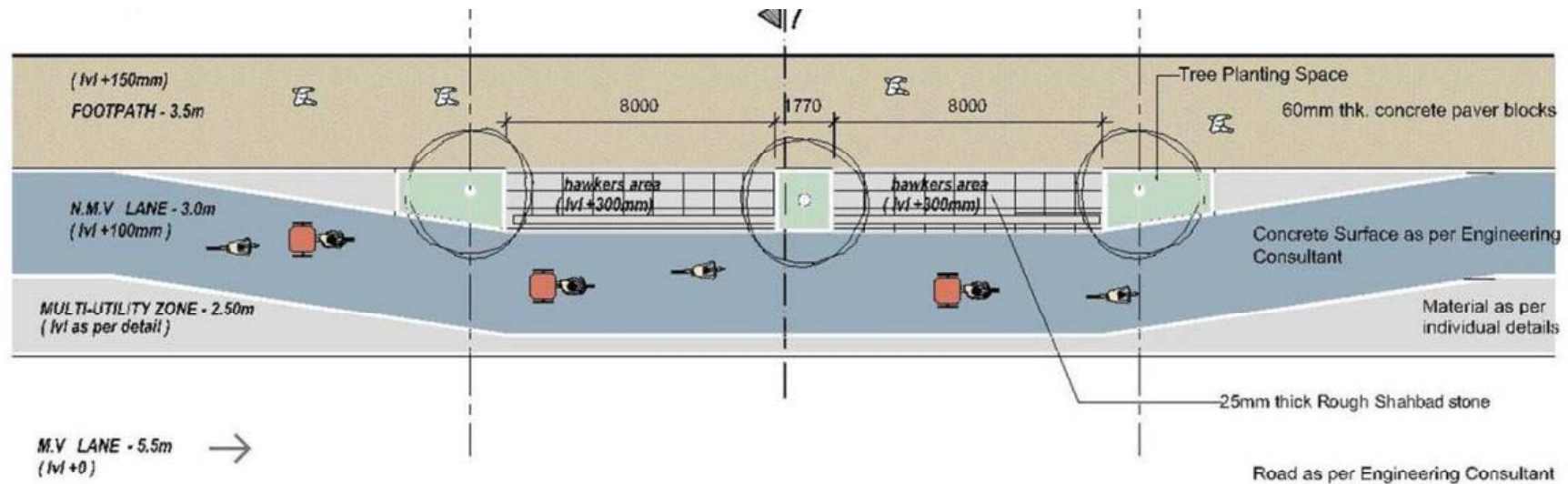
Cycle-Rickshaw Stand



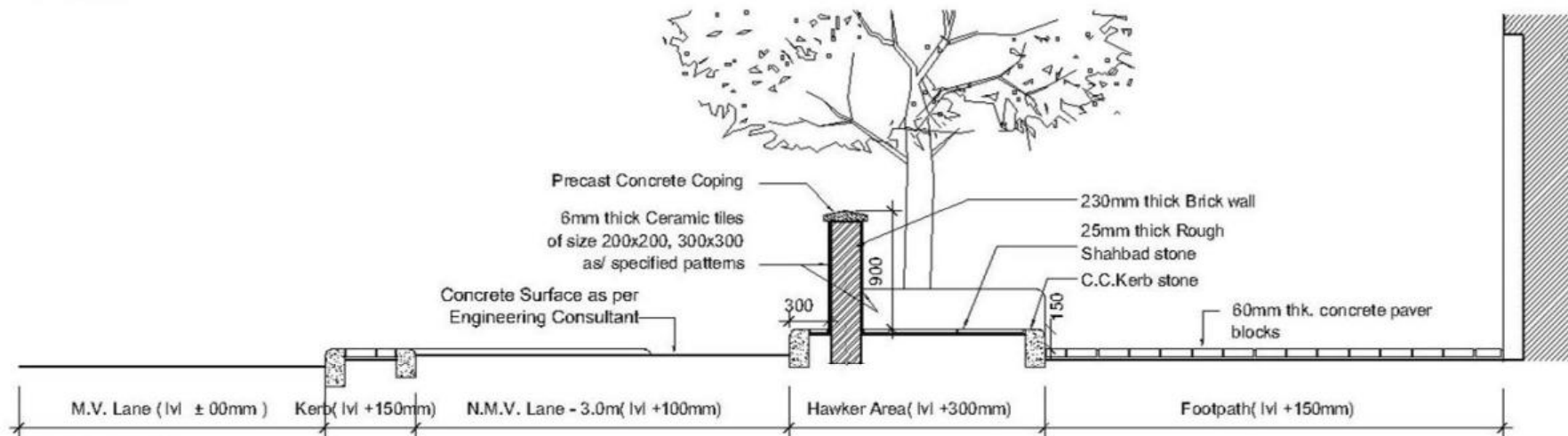
Bicycle Parking



Hawker's Platforms

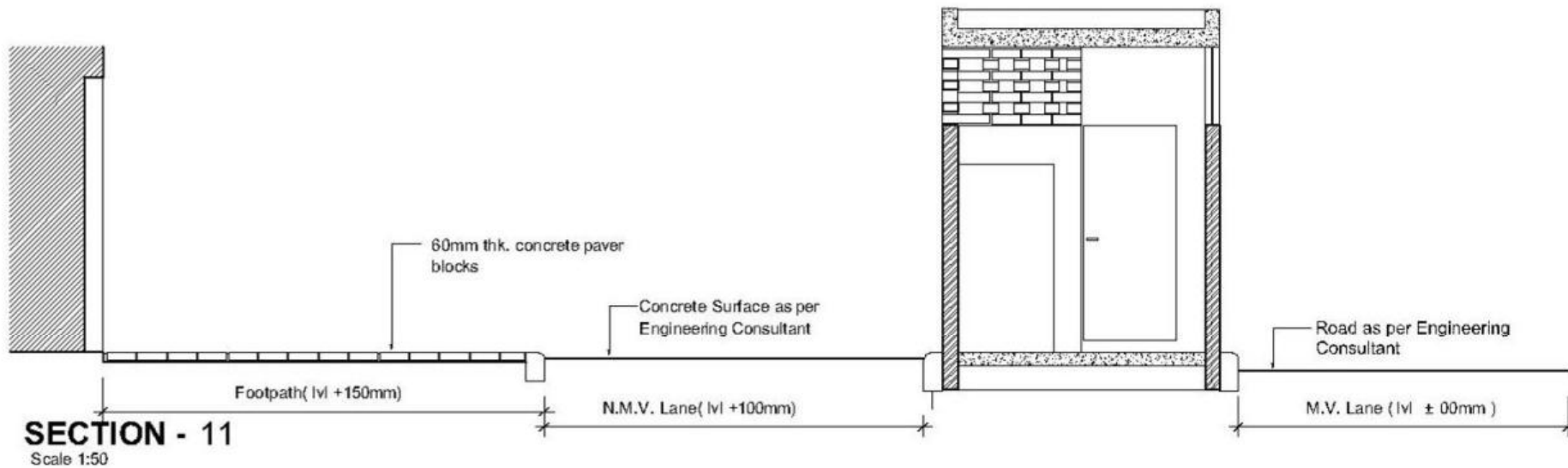
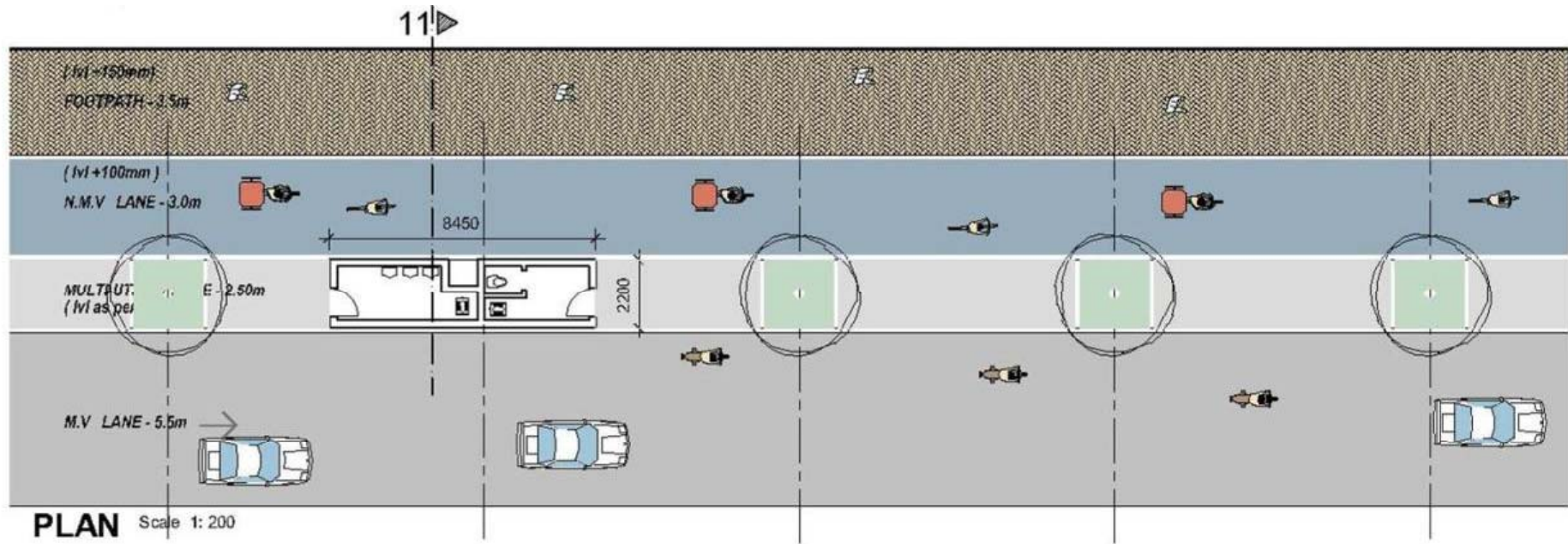


PLAN Scale 1: 200



SECTION - 7
Scale 1:50

Public Toilets

















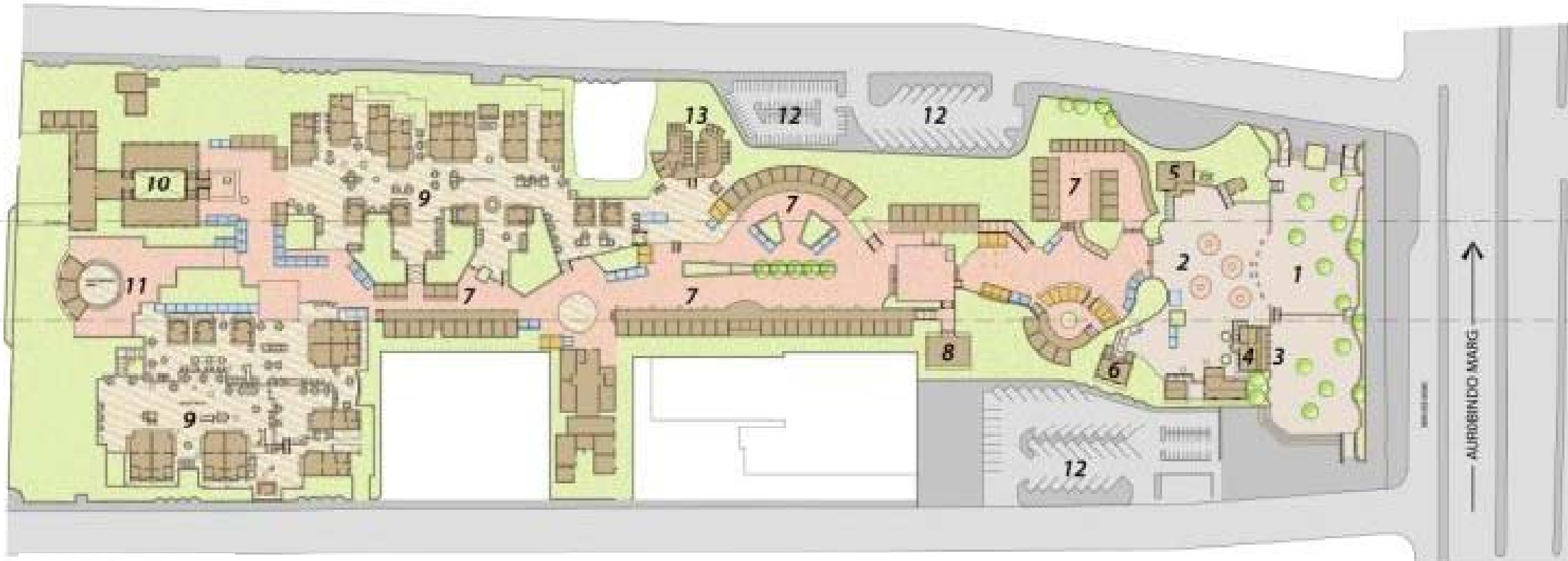








Dilli Haat, Aurobindo Marg



- 1 Forecourt
- 2 Entrance Plaza
- 3 Ticketing
- 4 Administration
- 5 Souvenir Shop
- 6 Conference
- 7 Craft Shops
- 8 Tribes of India
- 9 Food Court
- 10 Seminar Hall
- 11 Amphitheatre
- 12 Parking
- 13 Toilets











← Dilli Haats Office
दिल्ली हाट कार्यालय

← Exhibition Special Displays
विशेष प्रदर्शनी

← Meeting
बैठक











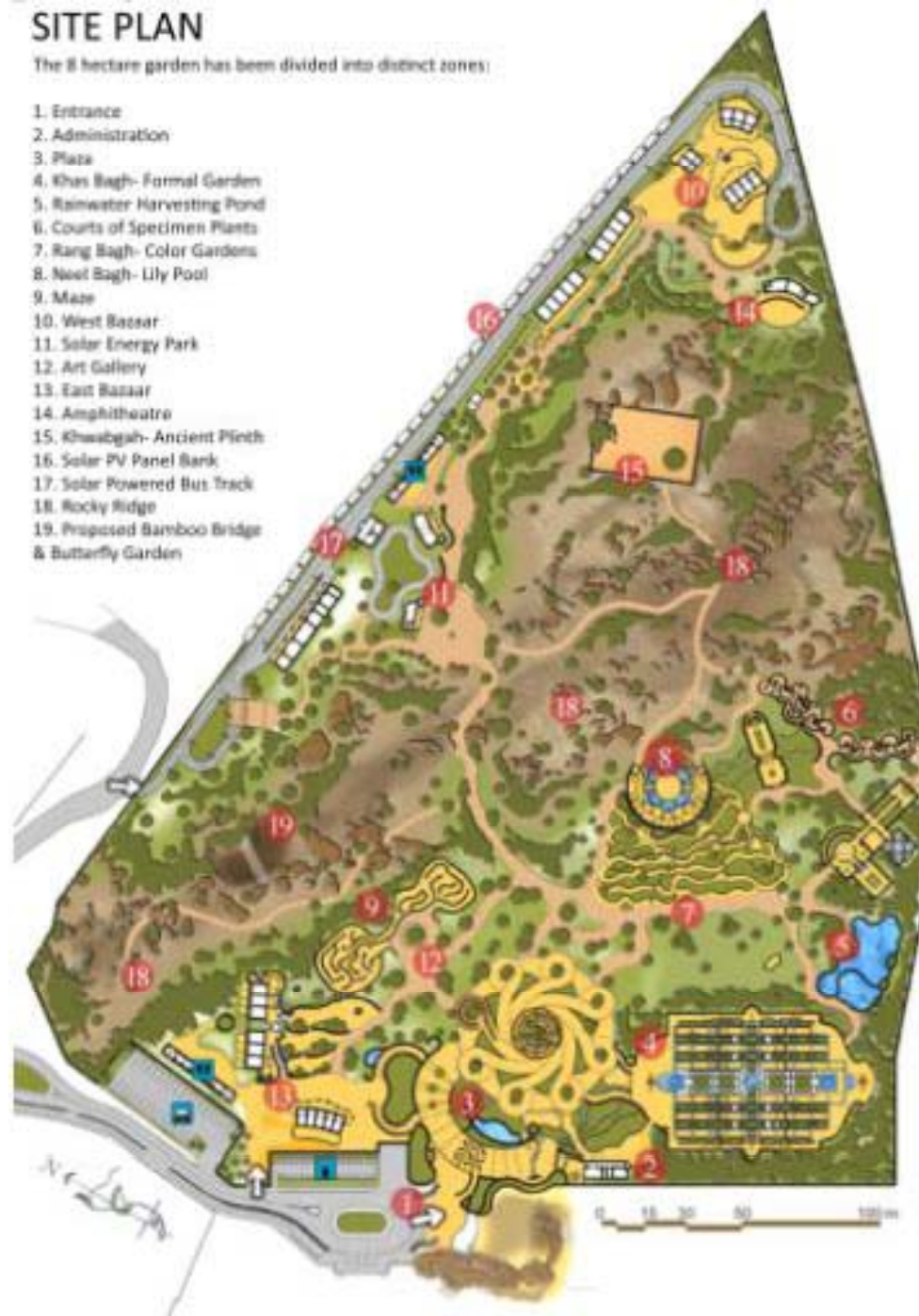


The Garden of Five Senses

SITE PLAN

The 8 hectare garden has been divided into distinct zones:

1. Entrance
2. Administration
3. Plaza
4. Khas Bagh- Formal Garden
5. Rainwater Harvesting Pond
6. Courts of Specimen Plants
7. Rang Bagh- Color Gardens
8. Neel Bagh- Lily Pool
9. Maze
10. West Bazaar
11. Solar Energy Park
12. Art Gallery
13. East Bazaar
14. Amphitheatre
15. Khasbagh- Ancient Plinth
16. Solar PV Panel Bank
17. Solar Powered Bus Track
18. Rocky Ridge
19. Proposed Bamboo Bridge & Butterfly Garden



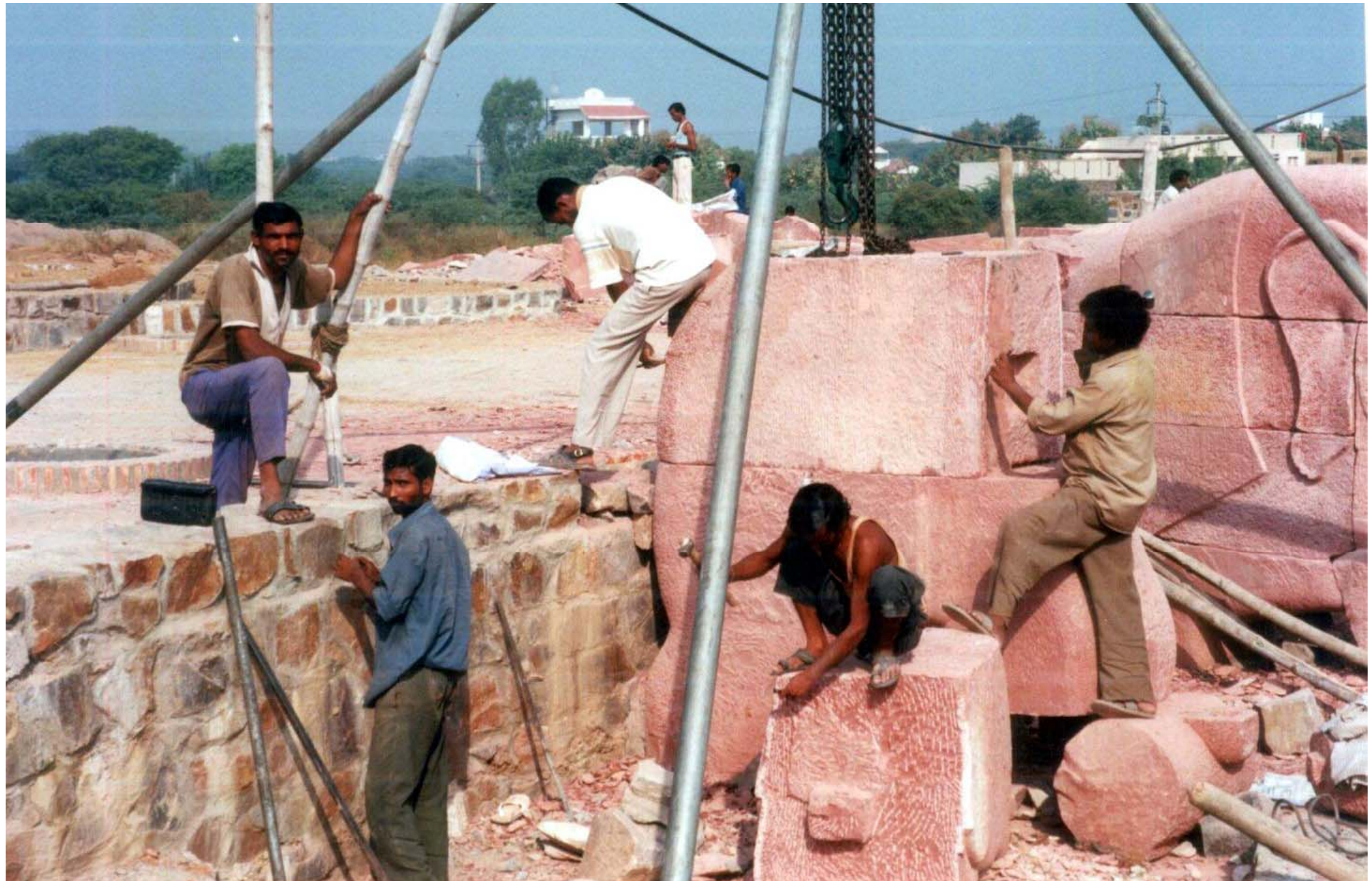




































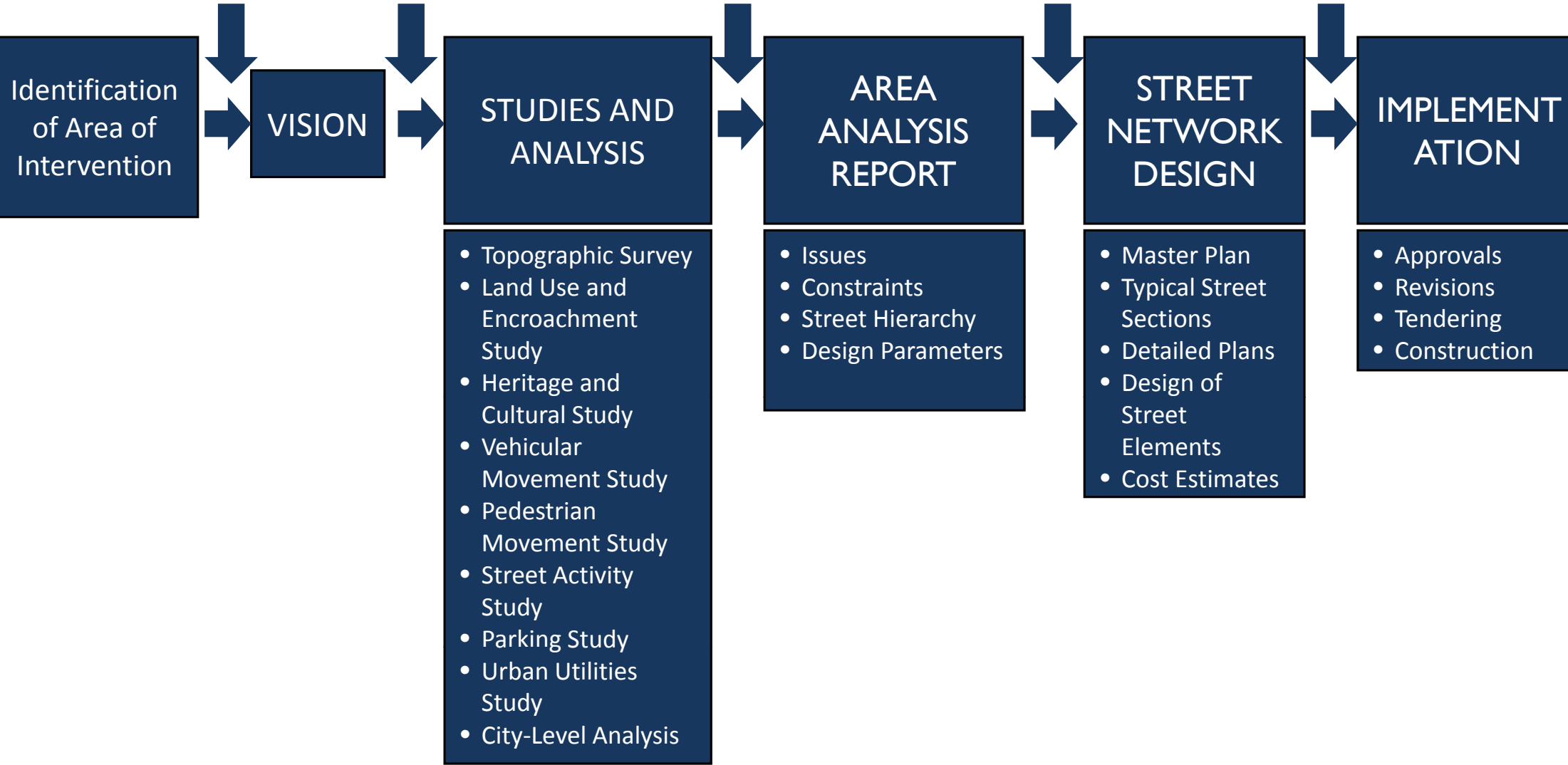




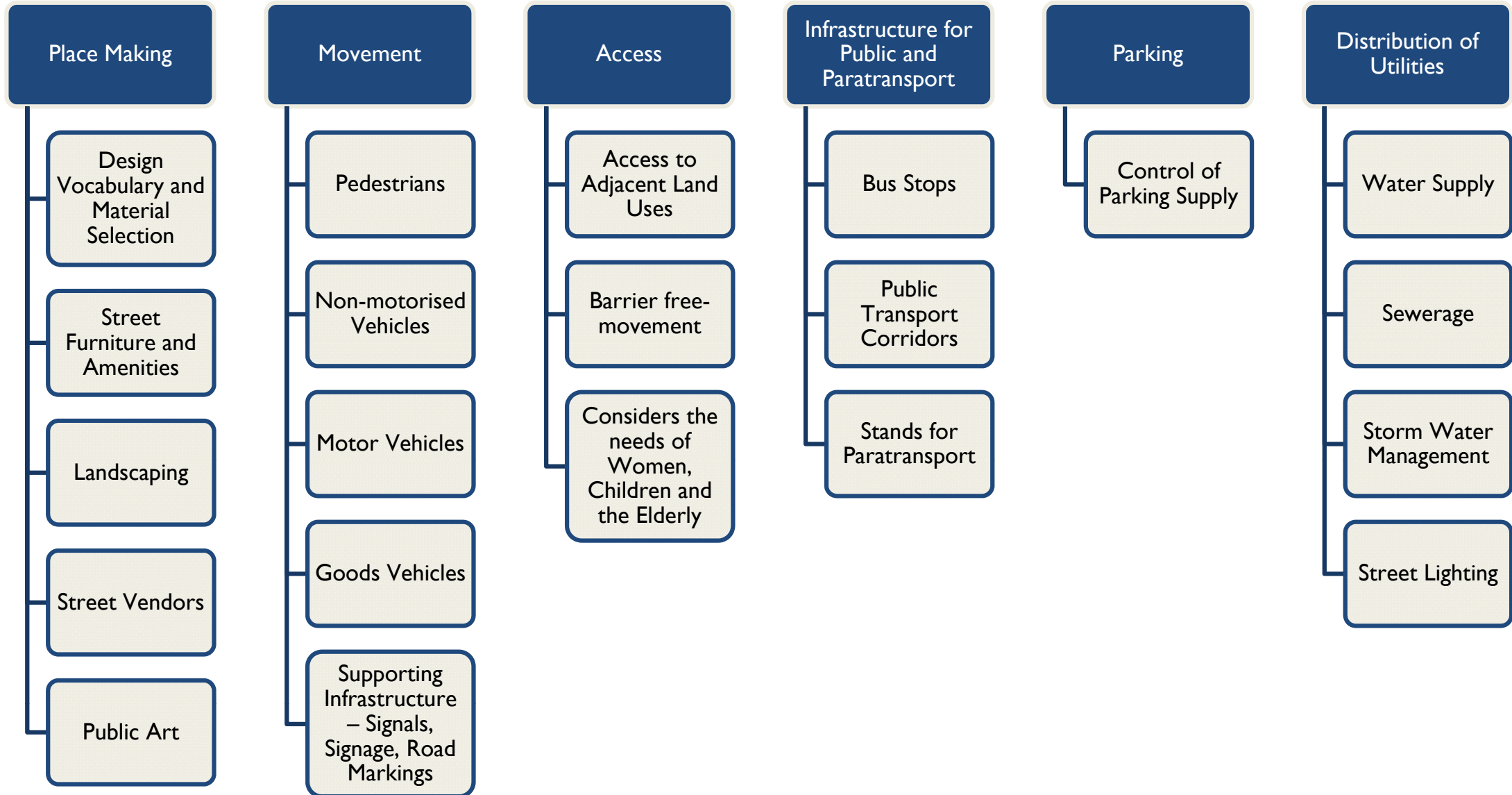
Streetscaping: An Overview

Design Process

CLIENT, STAKEHOLDER, USER AND EXPERT INPUT



Design Approach



Street Design Principles

- **Equitable and adequate space allocation**
 - Carriageway Design with Separate MV and NMV Lanes where required
 - Adequately Wide Footpaths for Pedestrians
 - Provide for Public Transport: Bus Stops and Bus Bays
 - Provide for Para-transport: Stands for Cycle-rickshaws, Auto-Rickshaws and Taxis
 - Streamline Parking and Loading-unloading Activities
 - Provide Designated Spaces for Hawkers

Street Design Principles

- **Safety**

- Intersection Design to minimize conflict between users
- Traffic Calming
- Efficient Street-lighting
- Provide for Police and Emergency Vehicles
- Road Markings, Signage and Way-finding Systems

Street Design Principles

- **Access for Persons with Disabilities**

- Access Ramps and Kerb Cuts
- At-grade Pedestrian Crossings
- Level Surfaces for Easy Navigation
- Warning Blocks and Auditory Signals at Intersections for the Blind

Street Design Principles

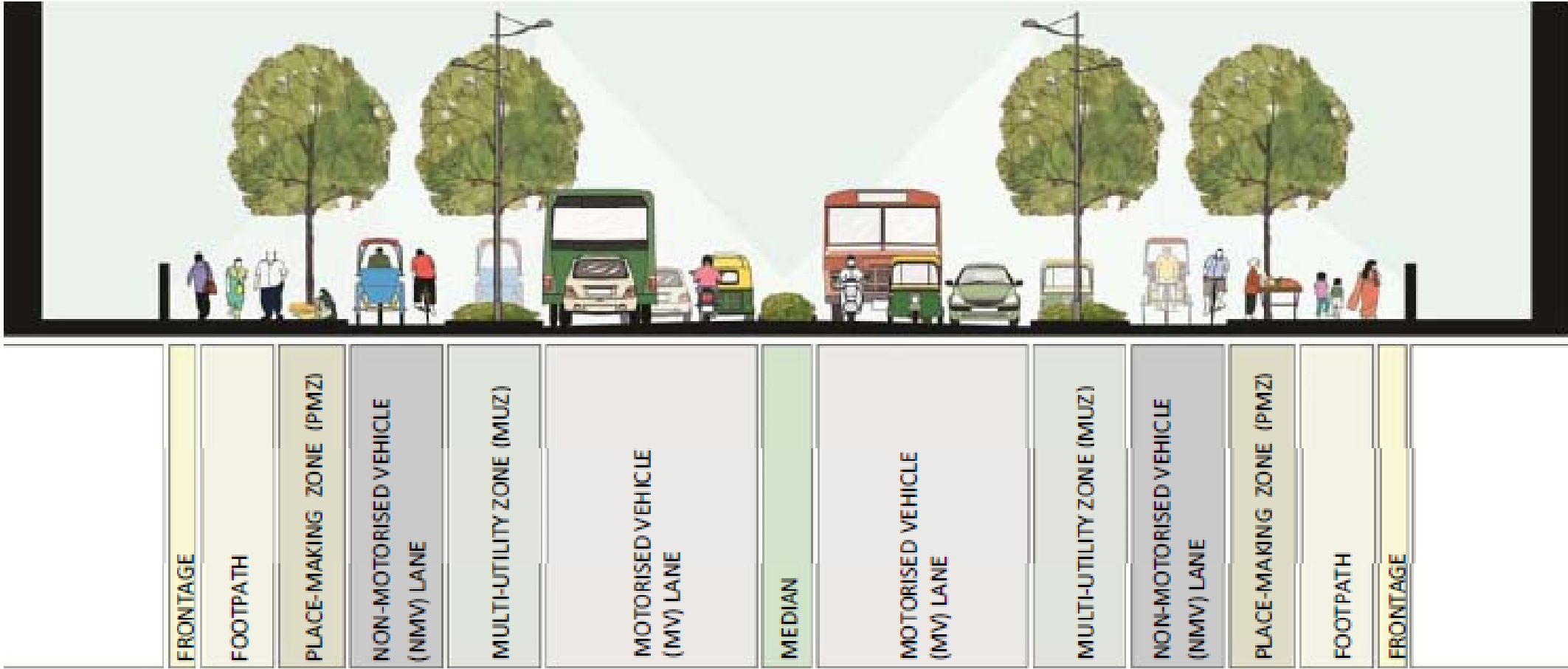
- **Improve Quality of Environment**

- Landscaping and Public Art
- Dustbins and Composting Facilities for Solid Waste
- Providing Amenities for users such as Public Toilets, Benches, Dustbins and Other Street Furniture
- Restoring Historic Streetscapes & Opening-up Vistas to Landmarks

Street Design Principles

- **Utilities planned considering future needs**
 - Storm-water Drainage and Rainwater Harvesting
 - Water Supply and Sewerage
 - Electricity Distribution
 - Telephone and Gas Lines

Street Design - Zoning



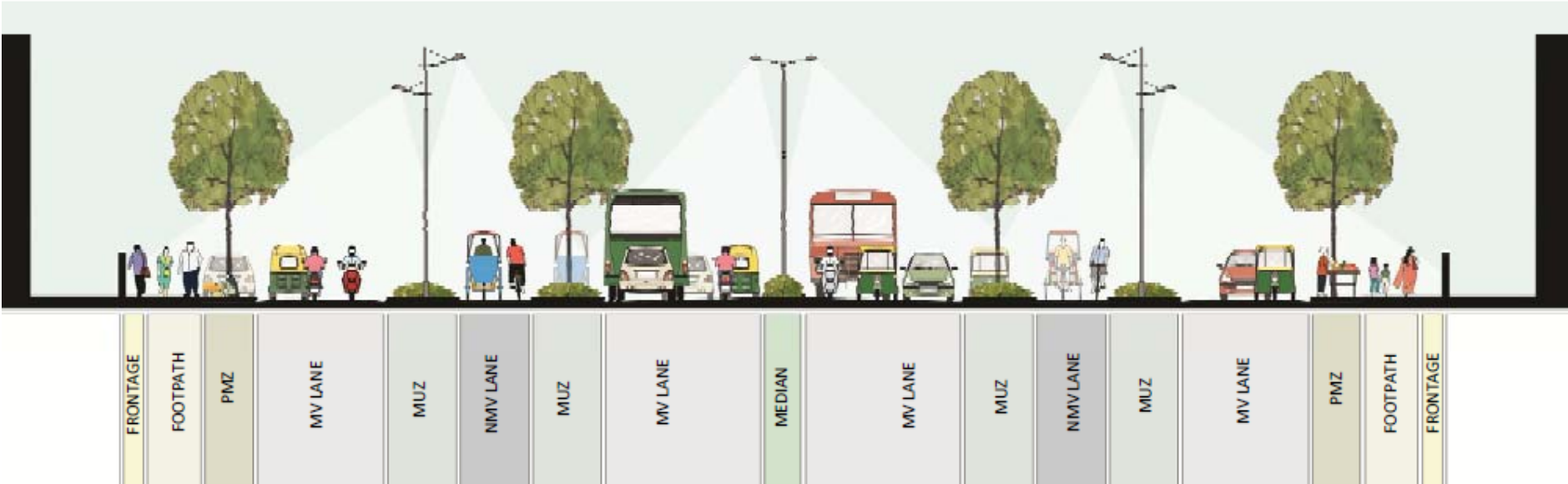
Street Design - Logic

ROAD CHARACTERISTICS

Large Right-of-Way
Large Volumes
High Speeds

STREET SECTION DESIGN

- Segregate MV and NMV Lanes
- 2-Way NMV Lanes on both Sides
- Wide Footpaths and MUZs



Street Design - Logic

ROAD CHARACTERISTICS

Small Right-of-Way

Large Volumes

High Speeds

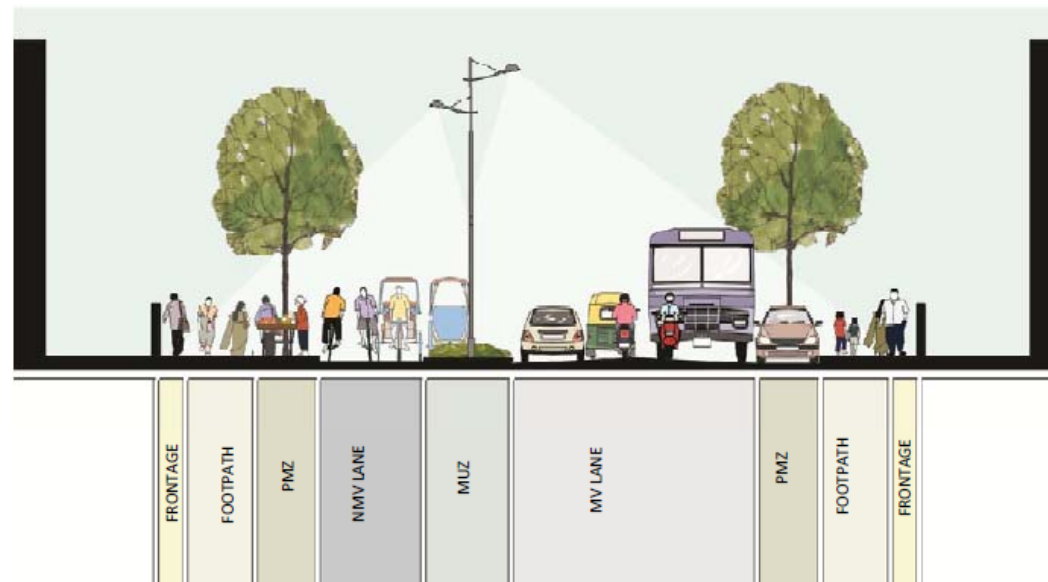
STREET SECTION DESIGN

Segregate MV and NMV Lanes

2-Way NMV Lanes on One Side

Wide Footpaths and MUZs

Slow the speed



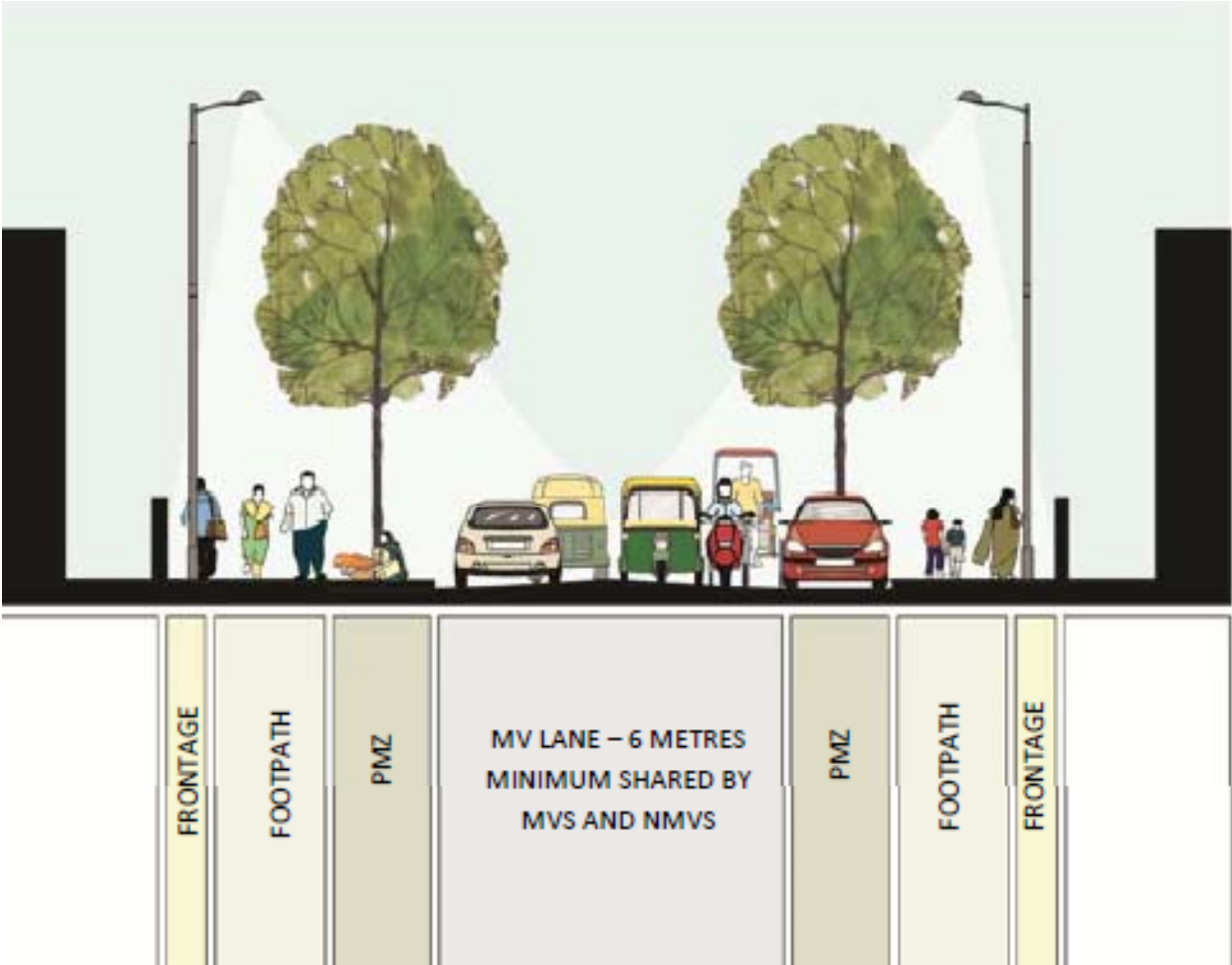
Street Design - Logic

ROAD CHARACTERISTICS

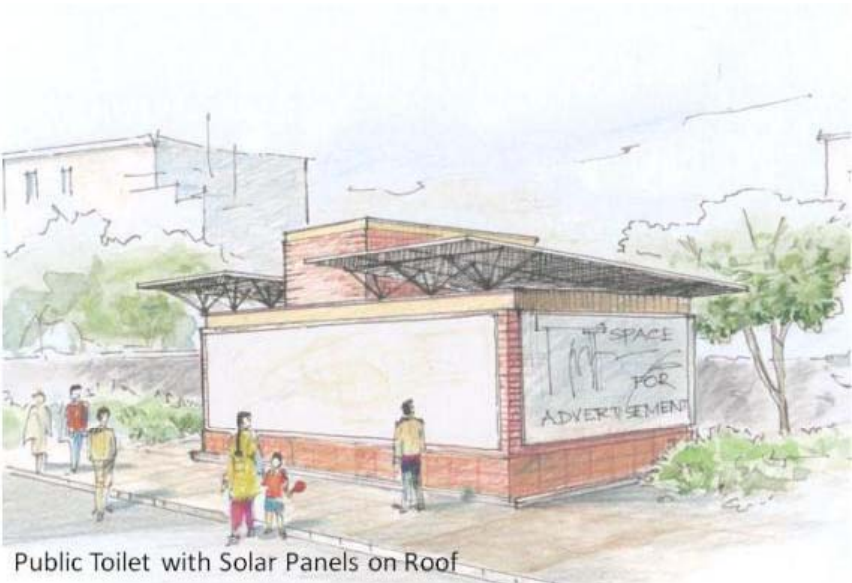
- Very Small Right-of-Way
- Low Volumes
- Low Speeds

STREET SECTION DESIGN

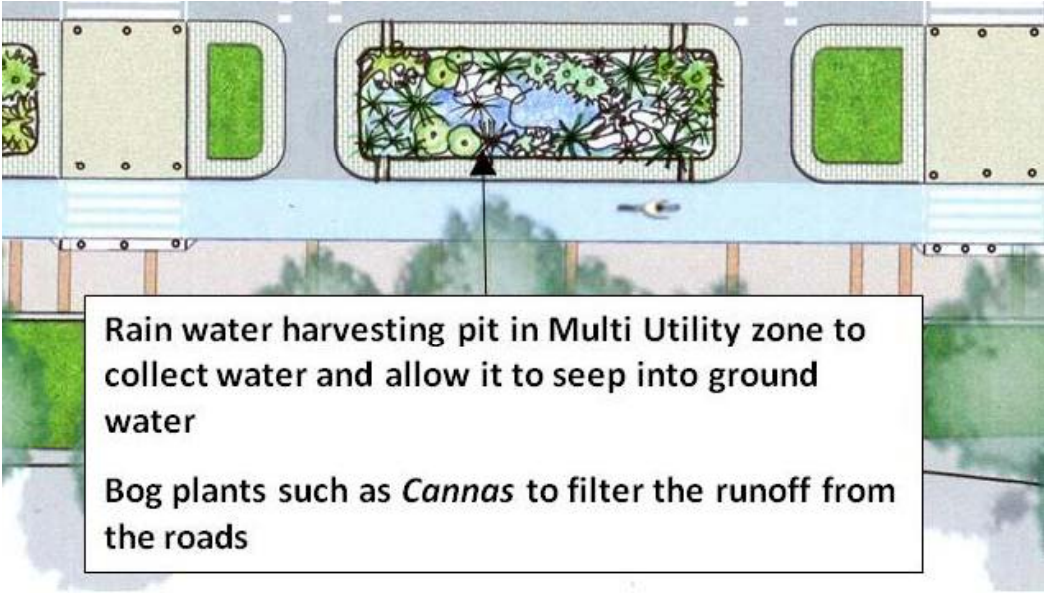
- Shared MV and NMV Lanes
- Adequate Footpaths
- Adequate PMZs where possible



The Details That Make A Street Work



The Details That Make A Street Work



The Details That Make A Street Work

STREET VENDORS

Need to be Organised by Providing Designated Street Vending Zones and Kiosks
Serve as Eyes-on-the-street and MAKE STREETS SAFE



The Details That Make A Street Work

STREET VENDORS

Need to be Organised by Providing Designated Street Vending Zones and Kiosks
Serve as Eyes-on-the-street and MAKE STREETS SAFE



Street Components

1. Bus stops
2. MV Parking (4wheeler)
3. MV Parking (2wheeler)
4. Autorickshaw stand
5. Cyclericshaw stand
6. Bicycle parking
7. Hawker platforms
8. Street light poles
9. Trees
10. Kerb cuts
11. Toilets
12. Traffic lights
13. Pedestrian crossing at Intersections
14. Pedestrian crossing at intermediate locations
15. Garbage bins
16. Garbage collectors
17. Planters
18. Entry / Exit from buildings
19. Pedestrian refuge
20. Signage systems
21. Warning blocks for the visually impaired
22. Post box
23. Advertising space 1 – public toilets
24. Advertising space 2 – bus stops
25. Advertising space 3
26. Advertising space 4
27. Advertising type 1
28. Advertising type 2
29. Advertising type 3
30. Advertising type 4
31. Electric transformer

Benefits

Attracts Tourists and Visitors

Improved **Quality of Life** to citizens, Makes city a desirable Investment destination

Improved **Access** to livelihood, education and other needs

Reduces Congestion, Improves Traffic Flow and Reduces Pollution

People can **Walk and Use Bicycles** – Better for the Environment, Better Public Health

Improved Safety for All – Less Accidents

Streetscaping, DDA Vikas Sadan, New Delhi



- विकास सदन
VIKAS SADAN
- केंद्रीय सतर्कता आयोग
CENTRAL VIG. COMM
- केंद्रीय विद्यालय
KENDRIYA VIDYALAYA
- सर्वोदय विद्यालय
SARVODAYA VIDYALAYA
- शुभचल होस्टल
SHUBHANCHAL HOSTEL
- सफदरजुंग बस टर्मिनल
SAFDARJUNG BUS TERMINAL











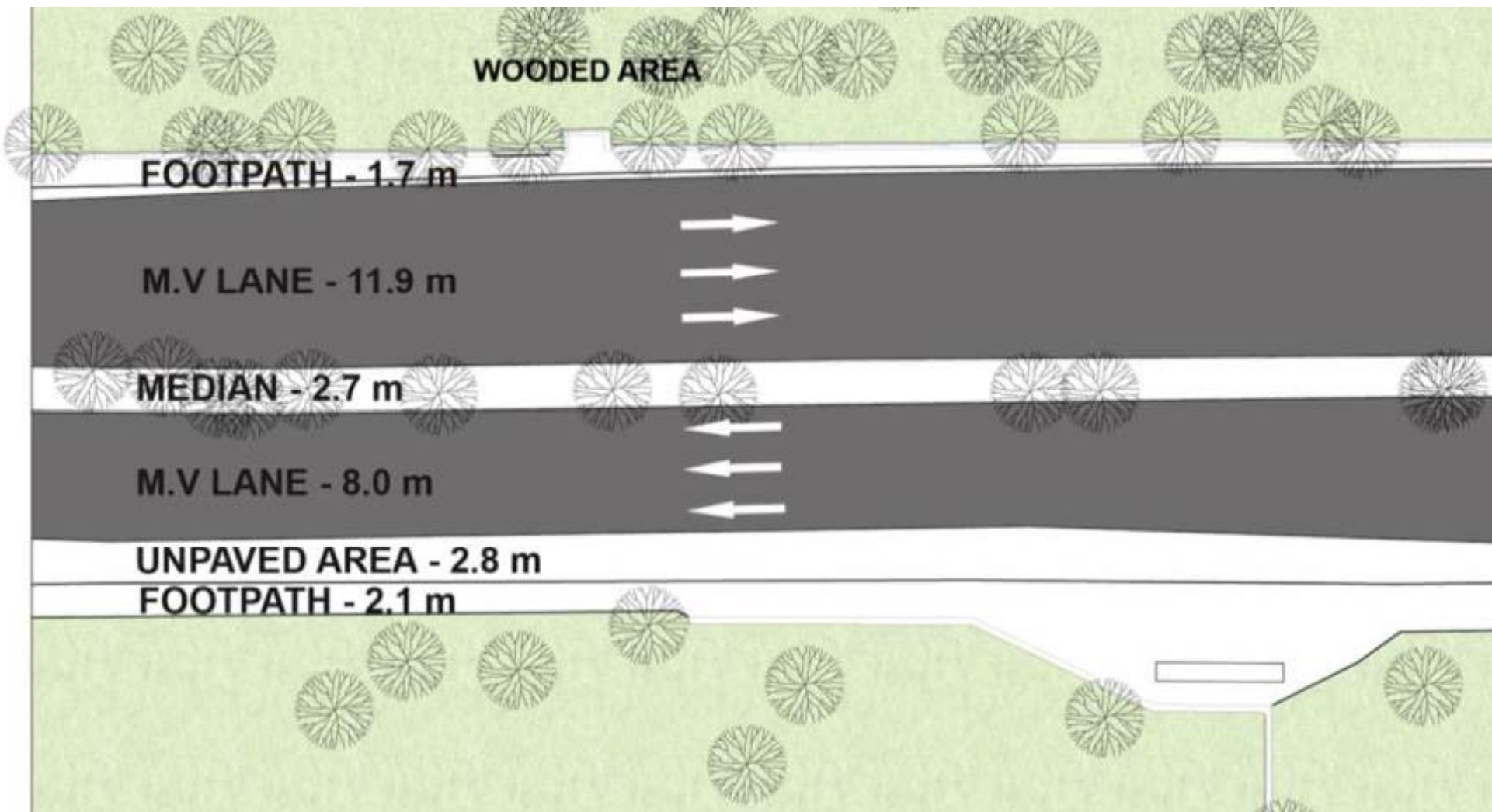






Streetscaping around CWG 2010 Venues, Delhi

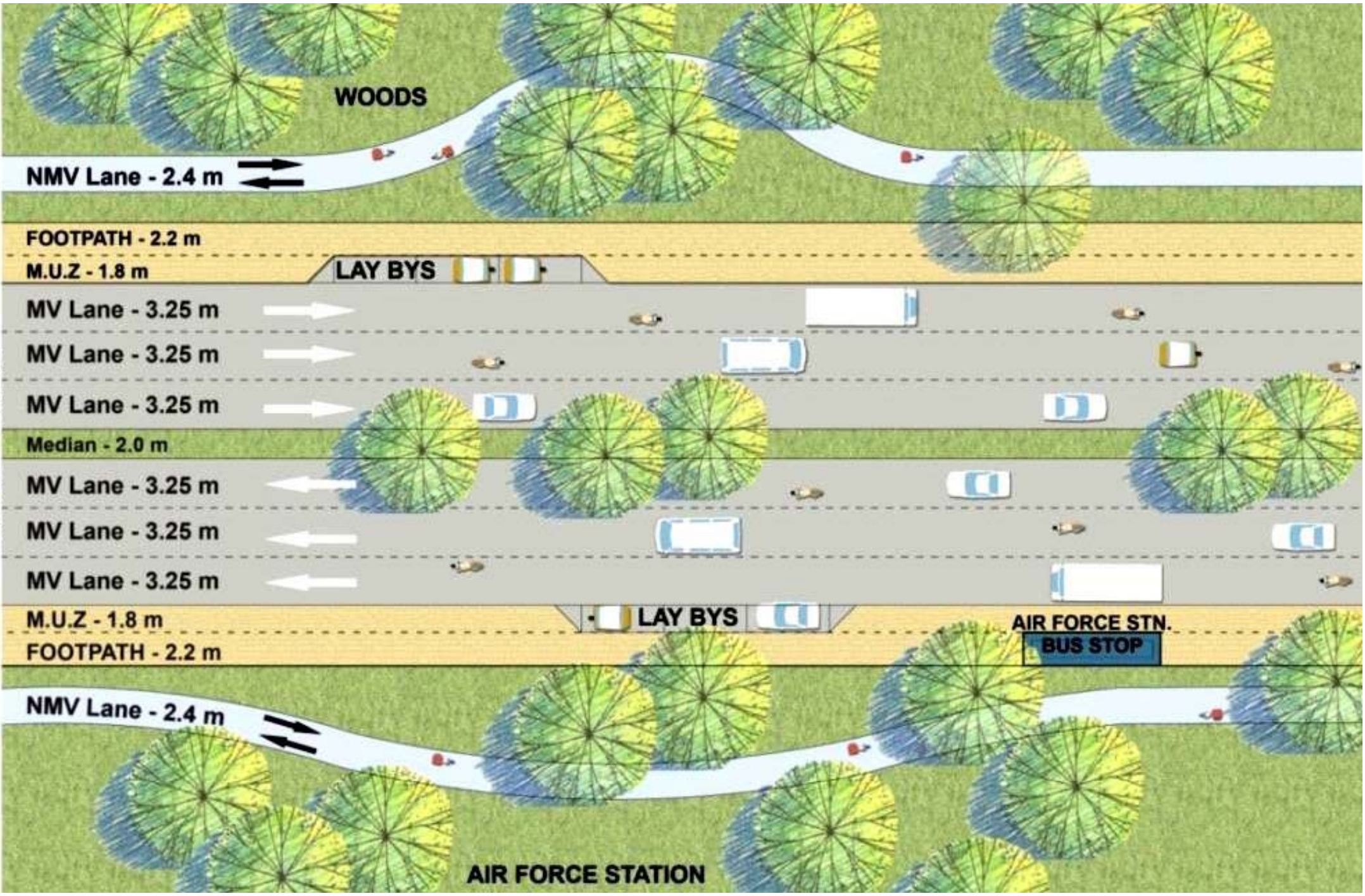
TOWARDS MEHRAULI



ROW - 78 m

TOWARDS BADARPUR

R.O.W - 78.0 m









श्री १० कर्मी सिंह शूटिंग रेंज (तुगलक)
SPORTS AUTHORITY OF INDIA
श्री १० कर्मी सिंह शूटिंग रेंज (तुगलक)







ROW - 40 m

Footpath - 1.8 m

NMV Lane - 2.3 m

MUZ - 2.3 m

MV Lane - 3.25 m

MV Lane - 3.25 m

MV Lane - 3.25 m

MV Lane - 3.25 m

Median - 1.5 m

MV Lane - 3.25 m

MV Lane - 3.25 m

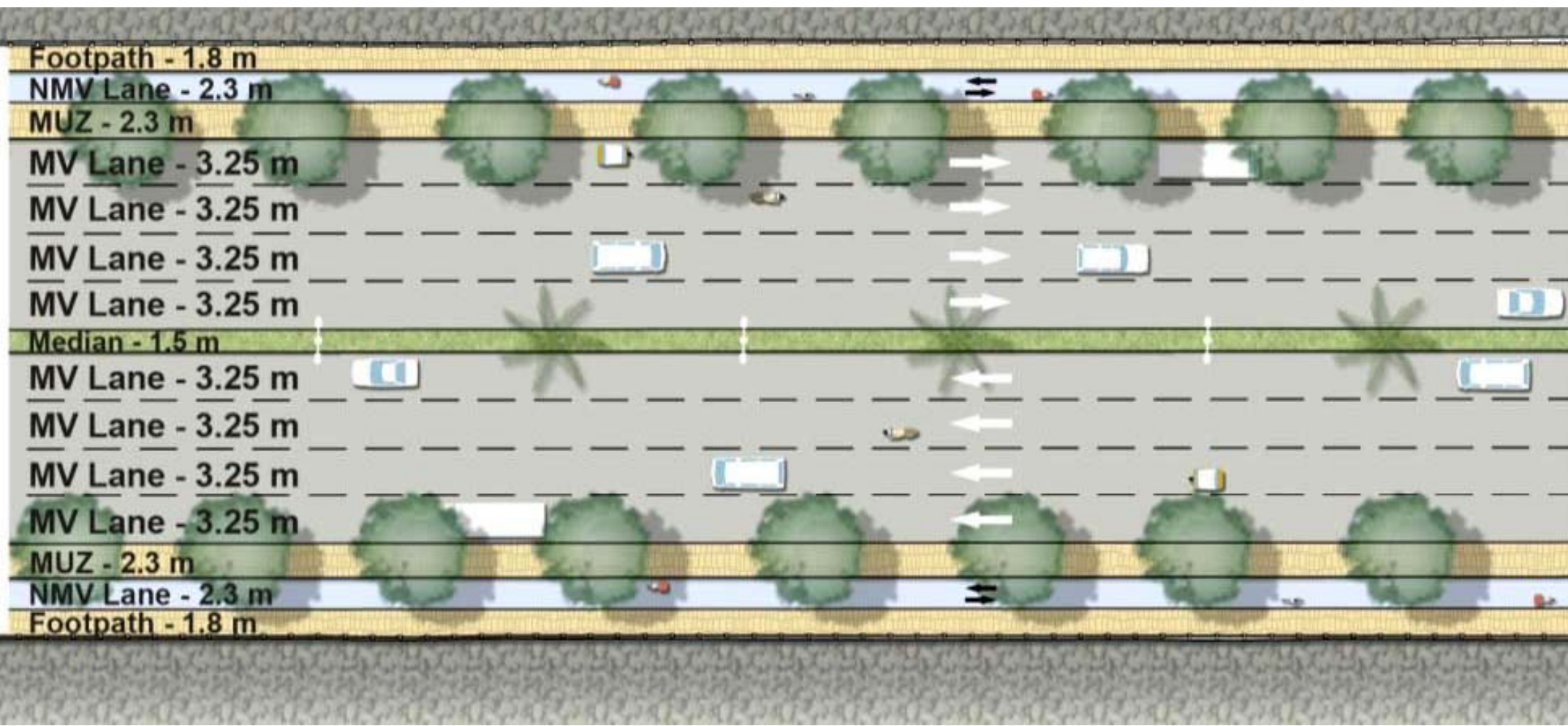
MV Lane - 3.25 m

MV Lane - 3.25 m

MUZ - 2.3 m

NMV Lane - 2.3 m

Footpath - 1.8 m

















Anish Kapoor
विन्नी मुंबई

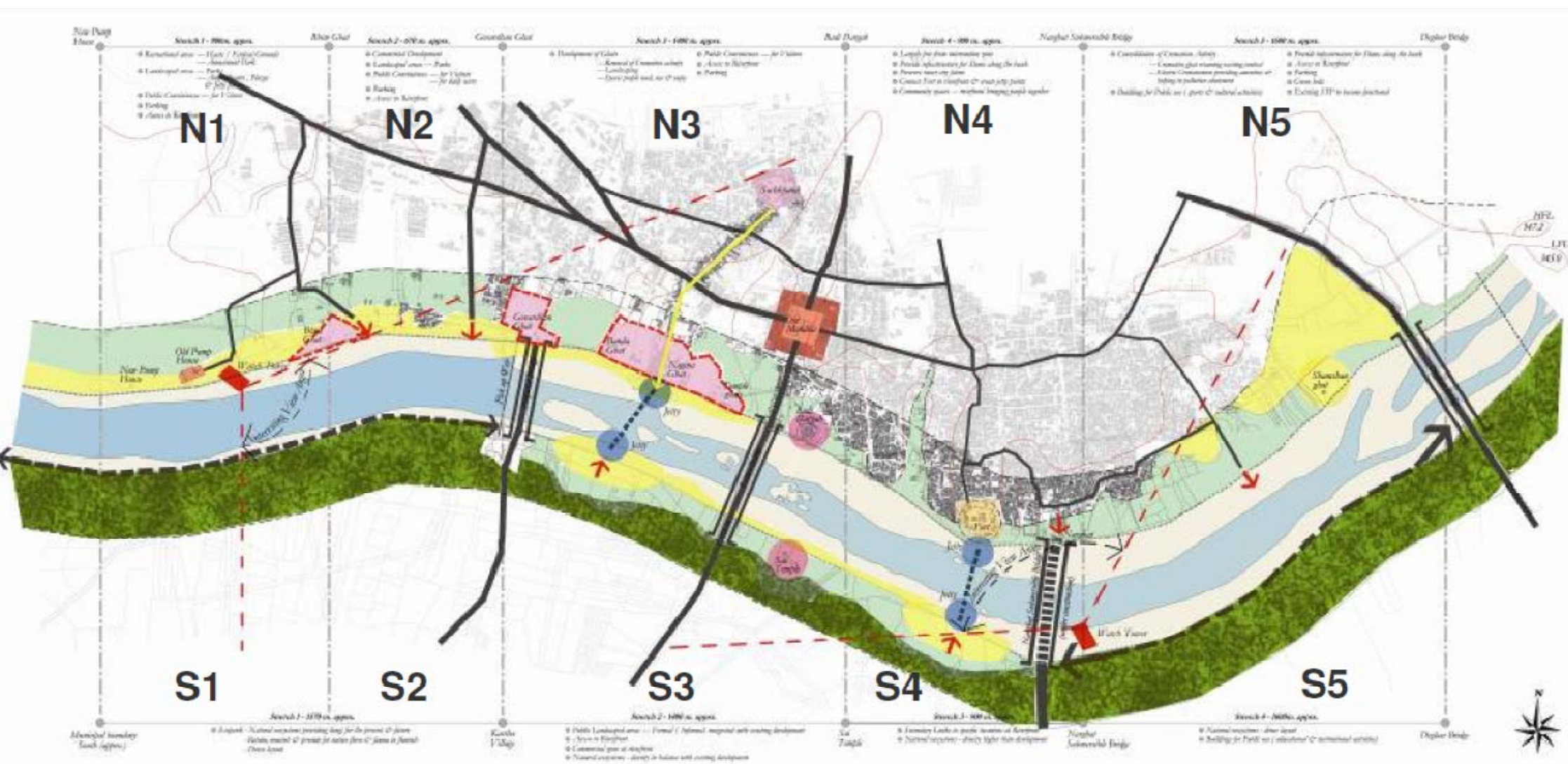








Godavari Riverfront, Nanded























Assi Ghat, Varanasi



TULSI
GHAT

REEVA
GHAT

GANGA
MAHAL
GHAT

ASSI
GHAT

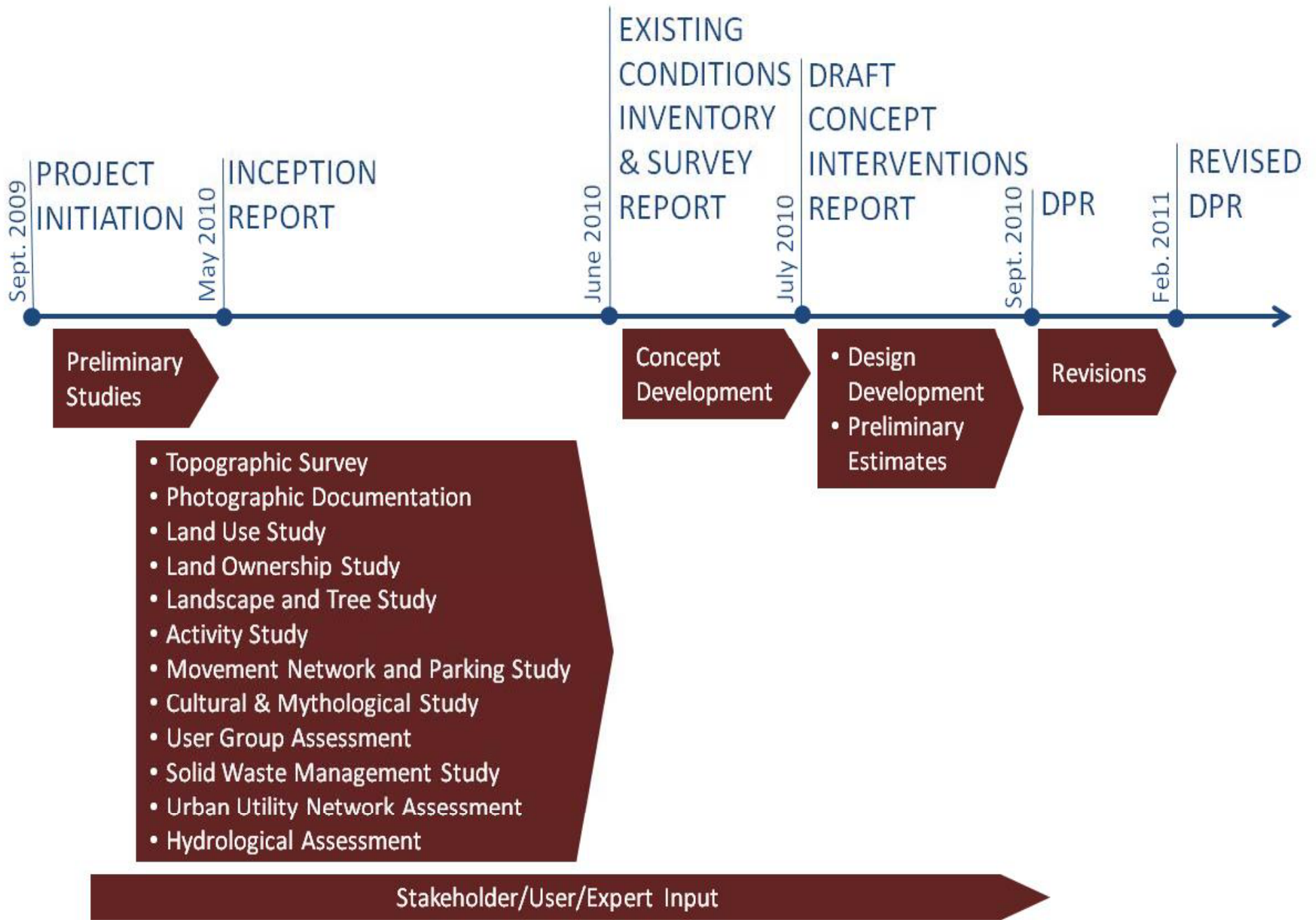
DUMRAON
COLONY
PARK

PUSHKAR
TALAB

RAVIDAS
PARK

ASSI BHADANI ROAD

ASSI LANKA ROAD



ASSI GHAT

- Southernmost of the 84 ghats
- Situated at the confluence of the now hidden Assi and Ganga River.
- The lord of confluence of Assi is represented by a *lingam* at the Assi Sangameshwar Temple
- The Panchratna or Panchdev Mandir and the *lingam* under the Peepal tree are also of significance
- Some of the festivals celebrated here are Dev Deepavali, Ganga Dussehra, Prabhodini Ekadashi, Makar Sankranti and Nag Nathaiya Mela .
- Assi Ghat is an integral part of the Panchkosi Yatra

GANGA MAHAL GHAT

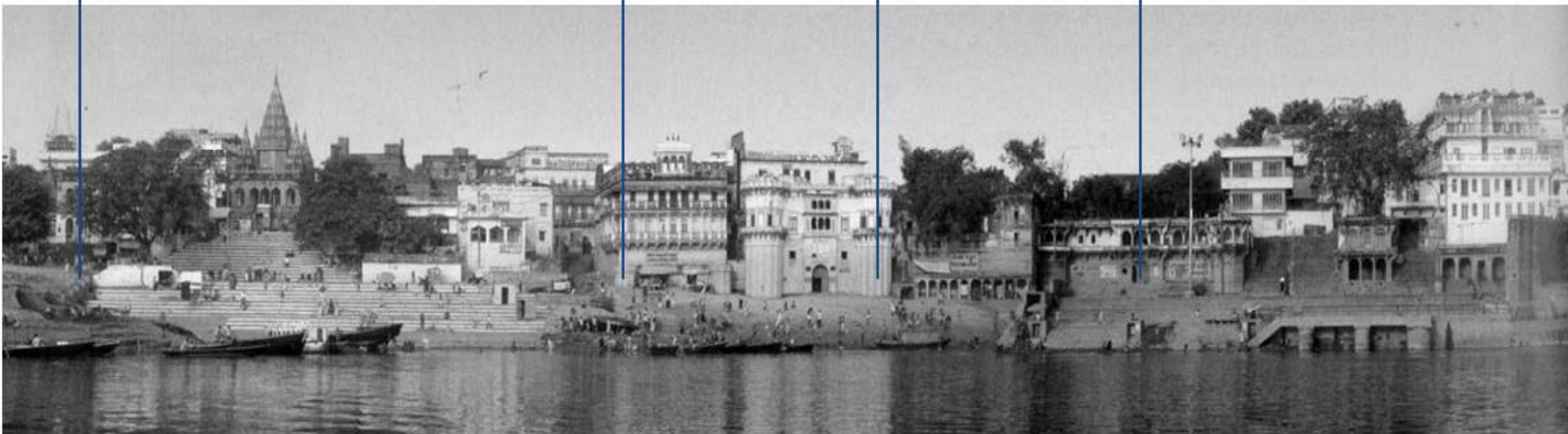
- Ganga Mahal Ghat is named after a palace building constructed by the Maharaja of Benares.
- The palace was built in the first half of 20th century A.D

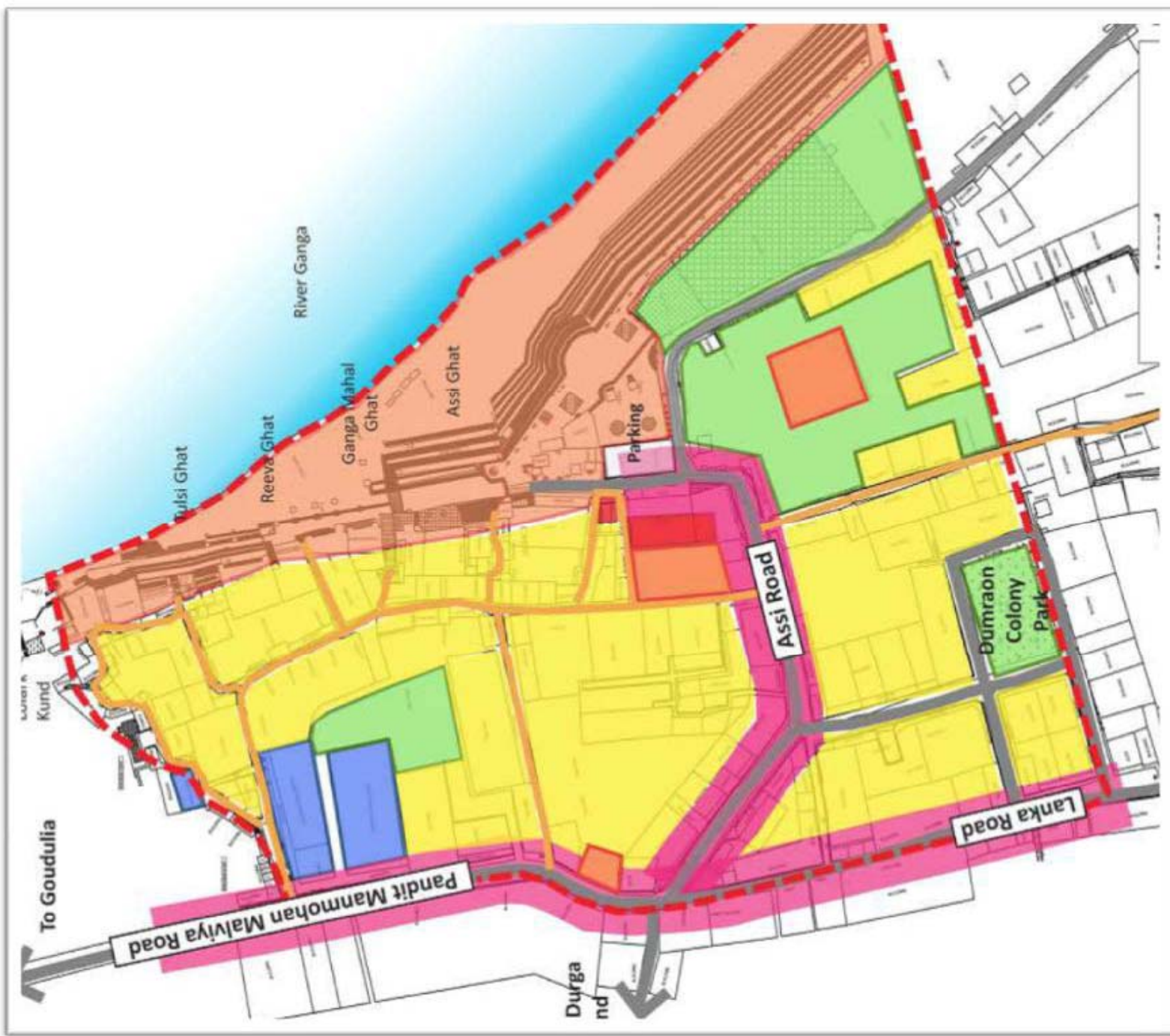
REEVA GHAT

- Built by Lala Mishir, a priest at the court of King Ranjit Singh of Punjab
- Bought by Maharaja of Reeva in 1879, who later donated it to Benares Hindu University.

TULSI GHAT

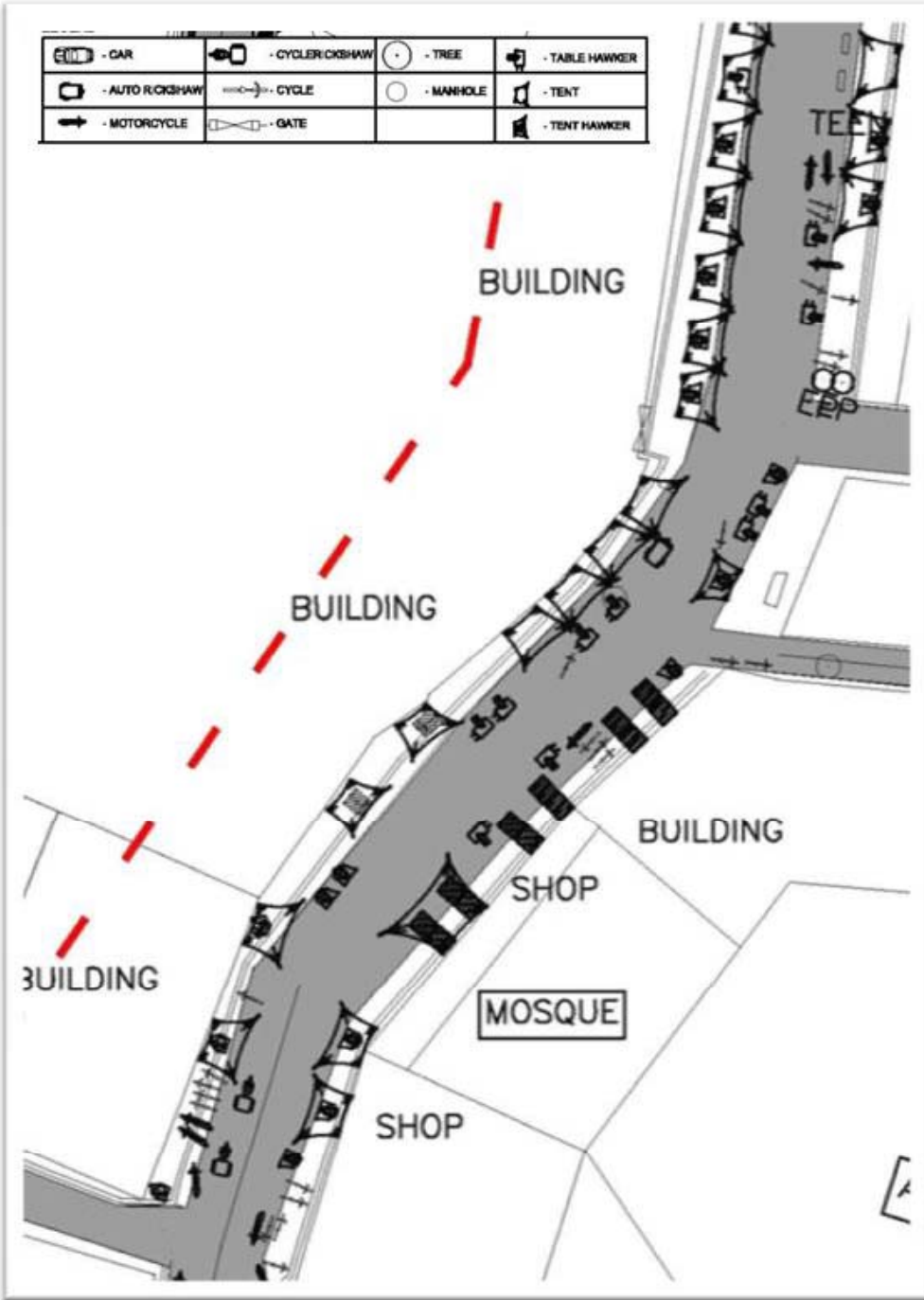
- Tulsi Ghat, a 16th century site is named after the great poet Tulsidas who is believed wrote the Ramcharitamanas at Assi and Tulsi Ghats.
- Earlier Tulsi Ghat was known as Lolark Ghat after the famous Lolark Kund, or the “tank of the Trembling Sun”
- Krishnaleela is staged here during the month of Kartik and Ram Leela in the month of Ashwin (Sept-Oct).



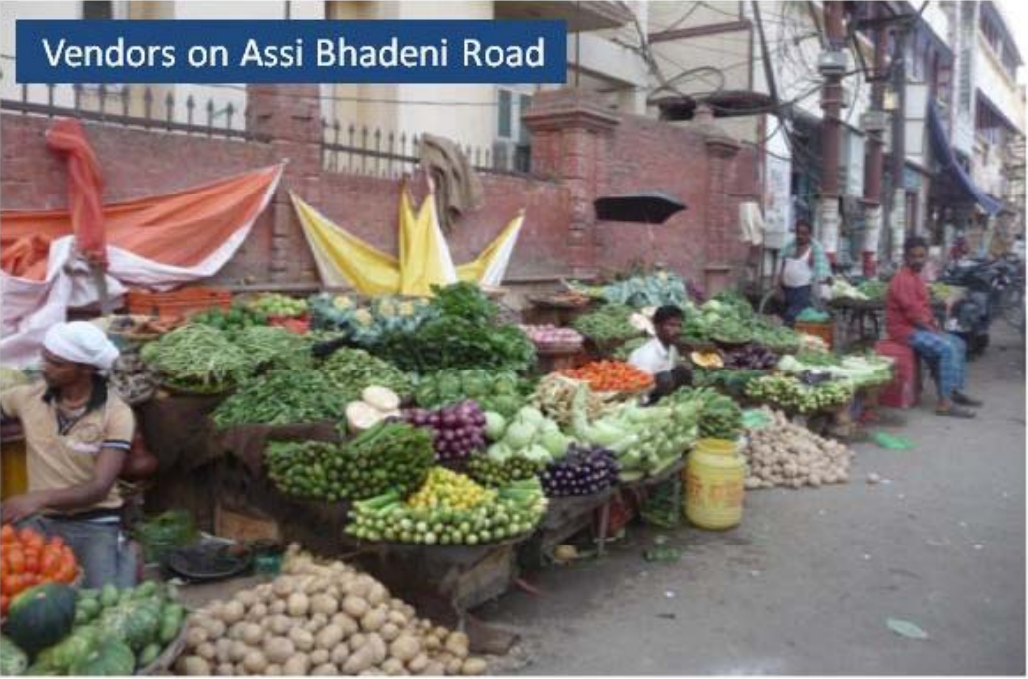


Legend	
	Area of Intervention
	Motorized Roads
	Non-Motorized Roads/Alley
Land Use	
	Residential
	Commercial
	Religious
	Mixed Use
	Institutional
	Open Space

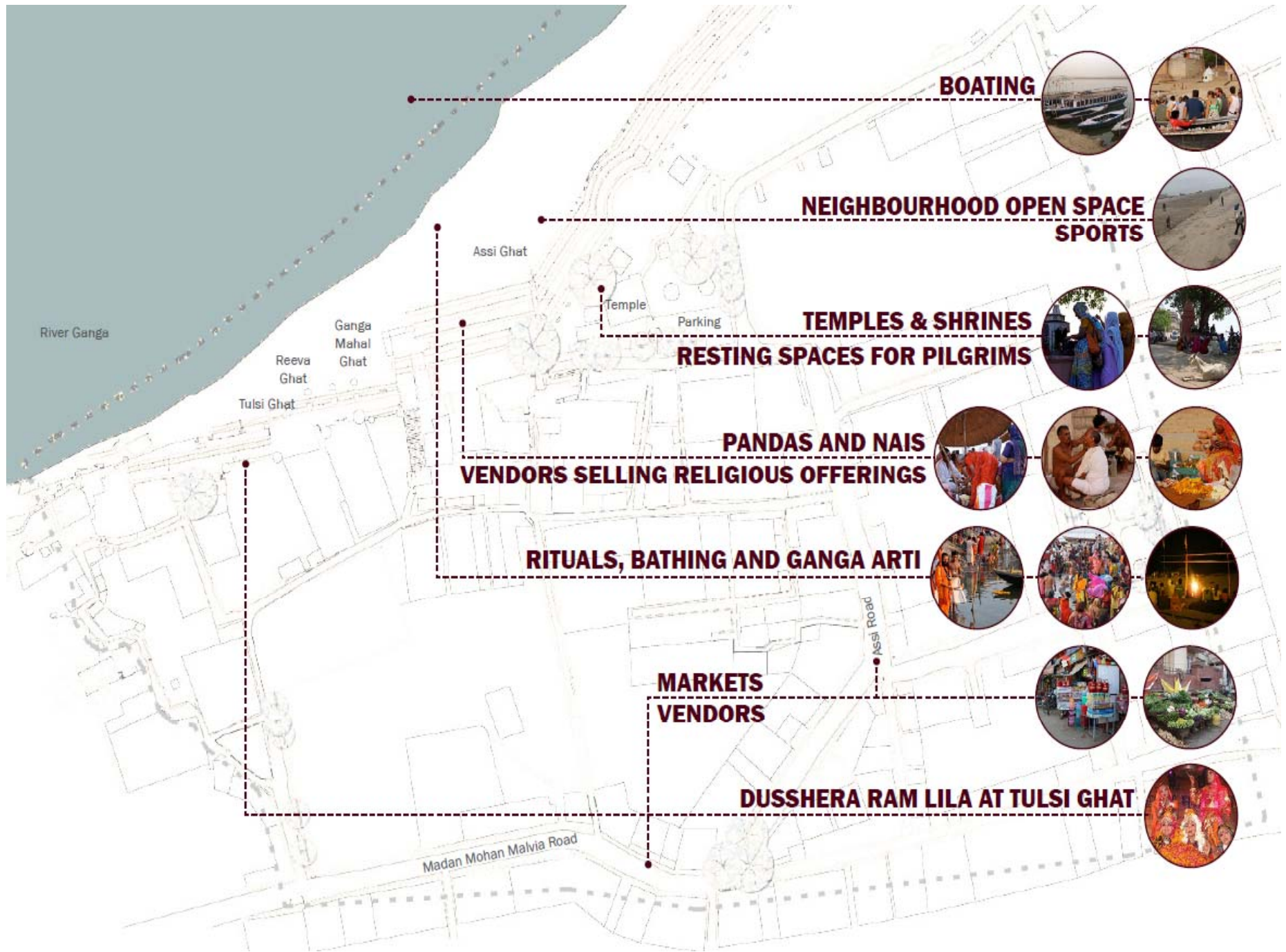


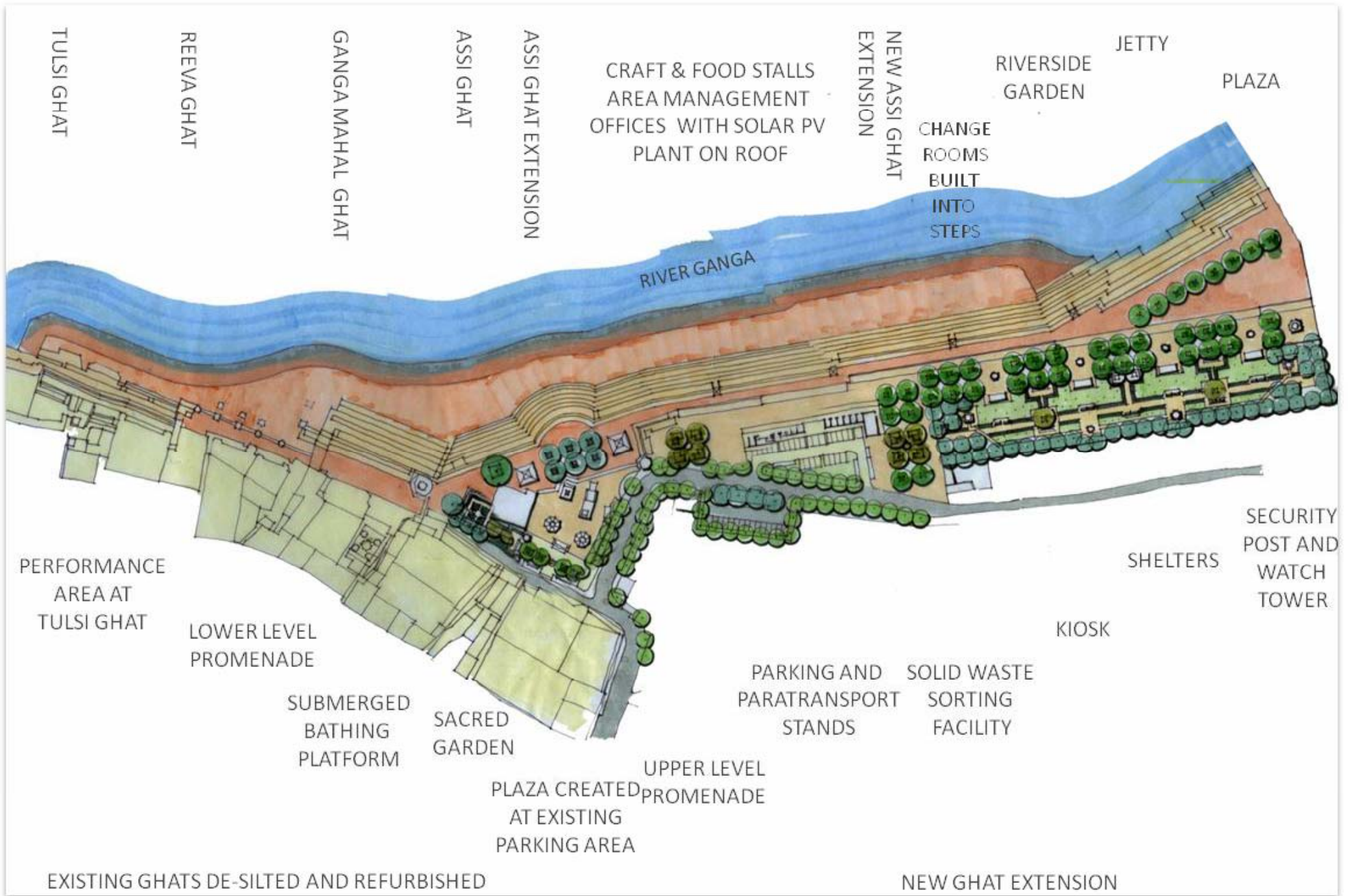


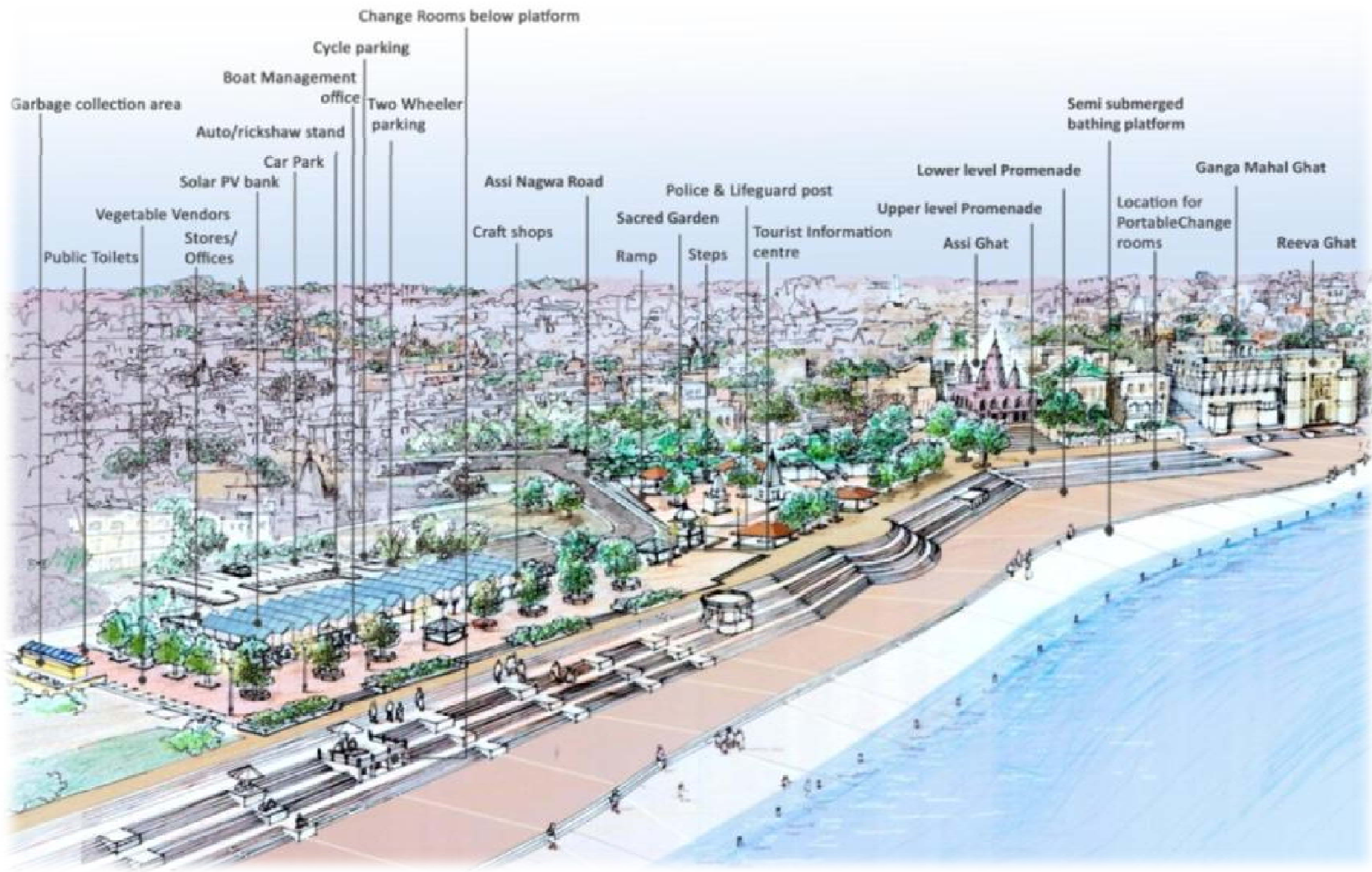
Parked Vehicles and Encroachment on Street Edge



Vendors on Assi Bhadeni Road







Change Rooms below platform

Cycle parking

Boat Management office

Garbage collection area

Auto/rickshaw stand

Two Wheeler parking

Car Park

Solar PV bank

Assi Nagwa Road

Police & Lifeguard post

Semi submerged bathing platform

Lower level Promenade

Ganga Mahal Ghat

Vegetable Vendors

Craft shops

Sacred Garden

Tourist Information centre

Upper level Promenade

Location for Portable Change rooms

Public Toilets

Stores/ Offices

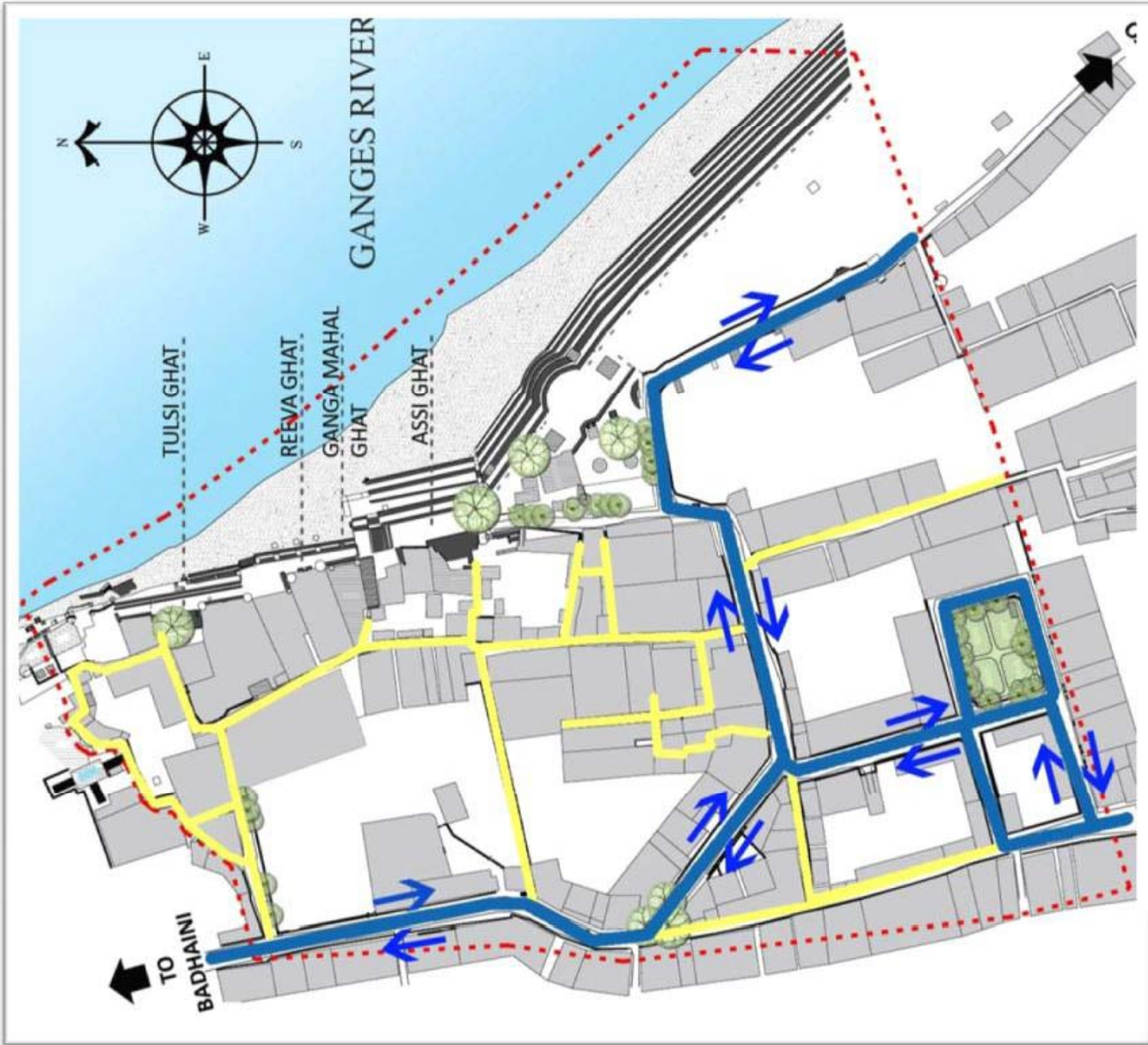
Ramp

Steps

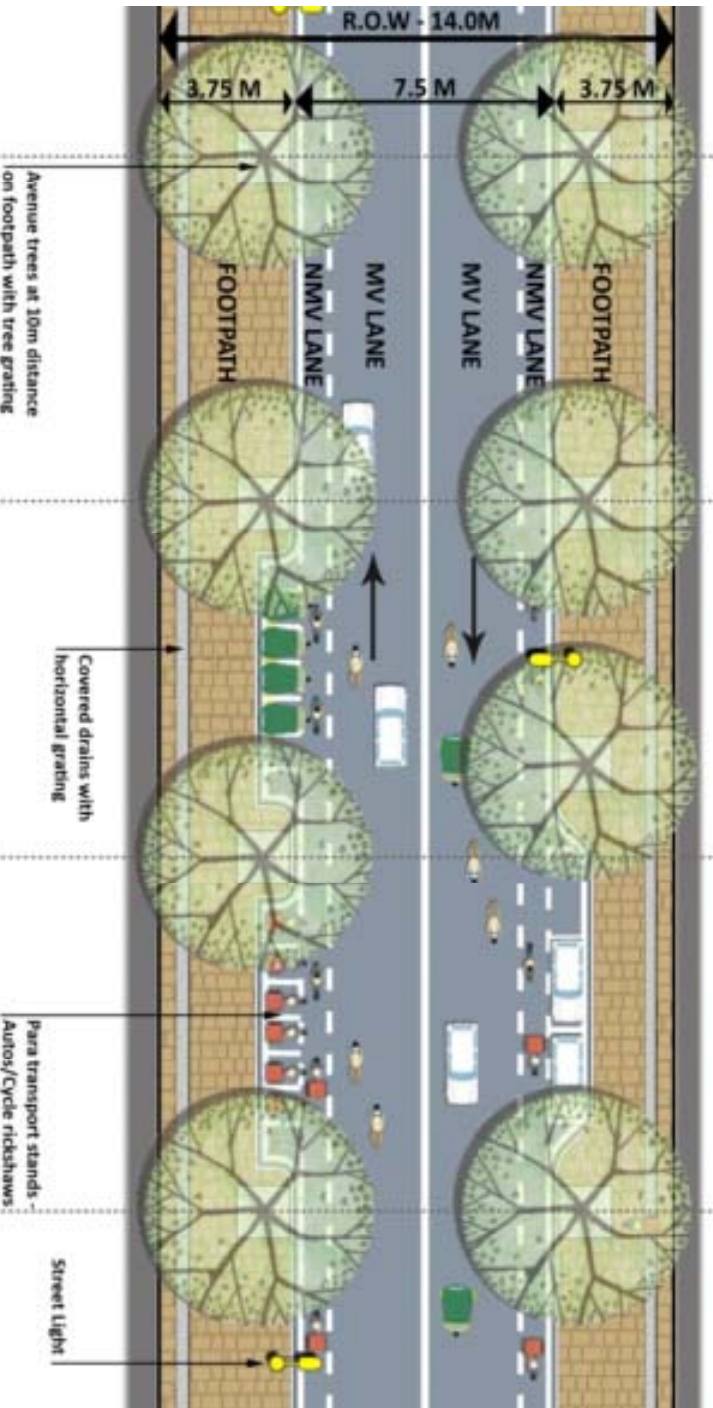
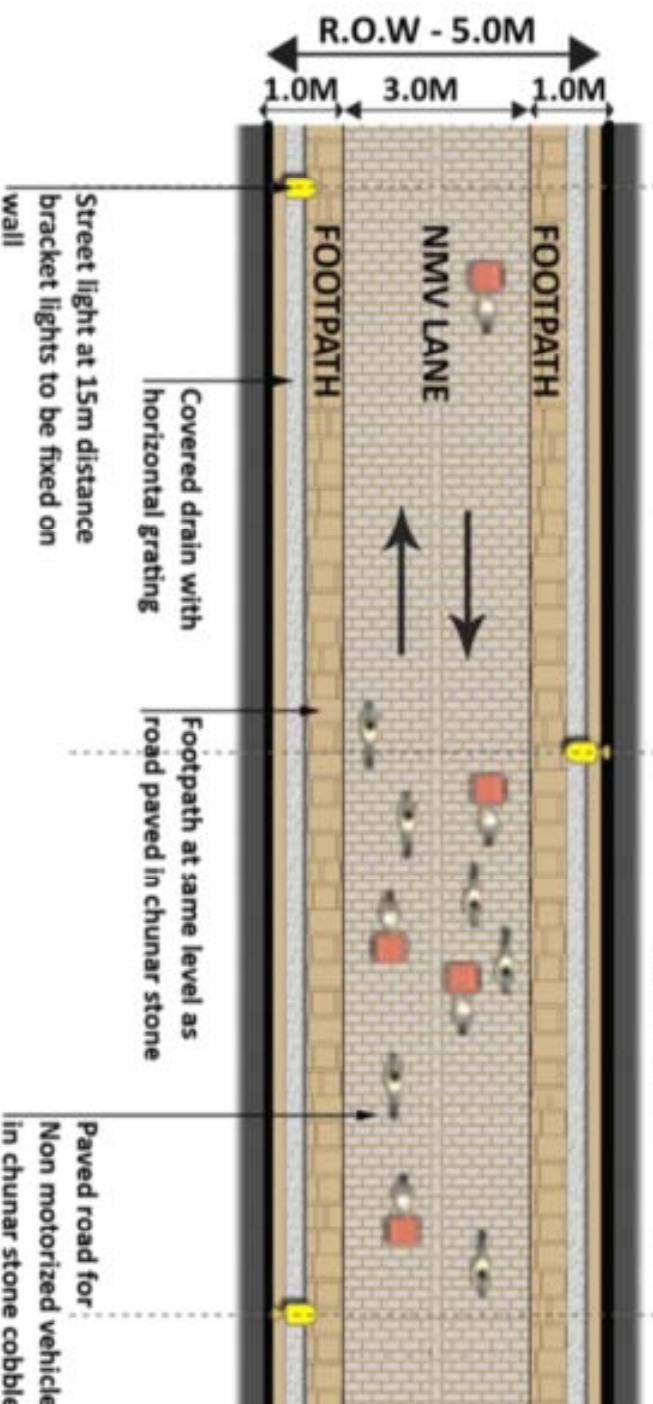
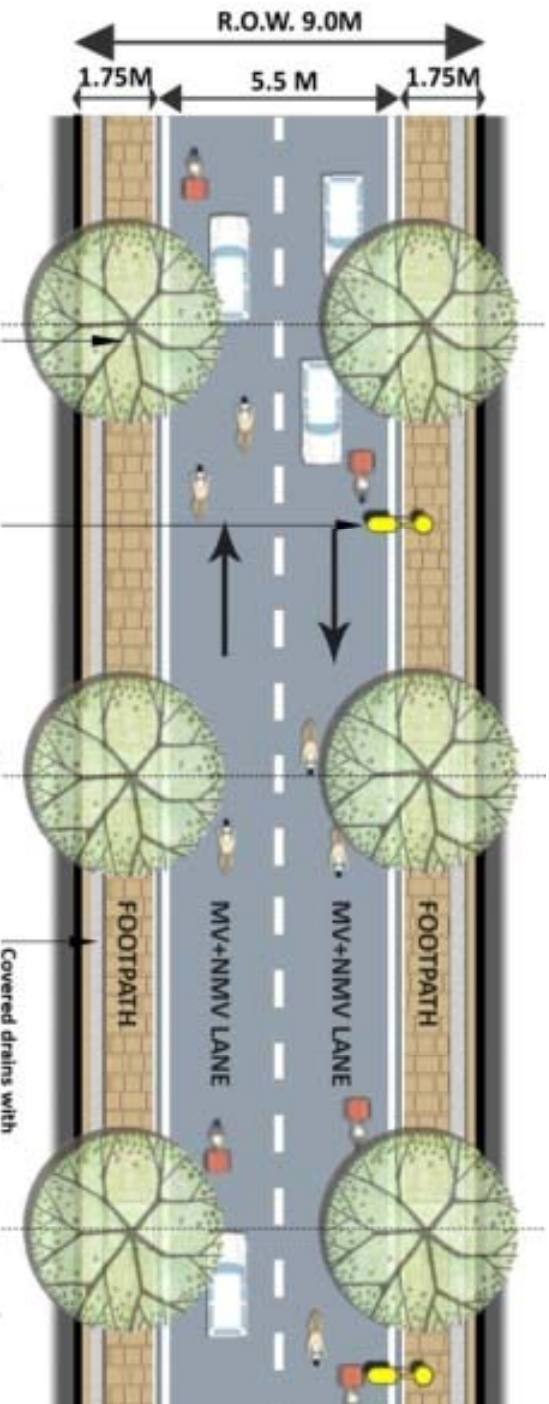
Assi Ghat

Reeva Ghat





- MOTOR VEHICLE ROAD**
- NON-MOTOR VEHICLE & PEDESTRIAN ROAD**



Samode Safari Lodge, Bandhavgarh



Legend

- 1. Entrance
- 2. Lodge
- 3. Restaurant
- 4. Boma
- 5. Kitchen and service block
- 6. Guest room type II
- 7. Guest room type I
- 8. Lodge II
- 9. Spa
- 10. Pool





























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