LEADERS IN URBAN TRANSPORT PLANNING

Ahmedabad Urban Development Authority

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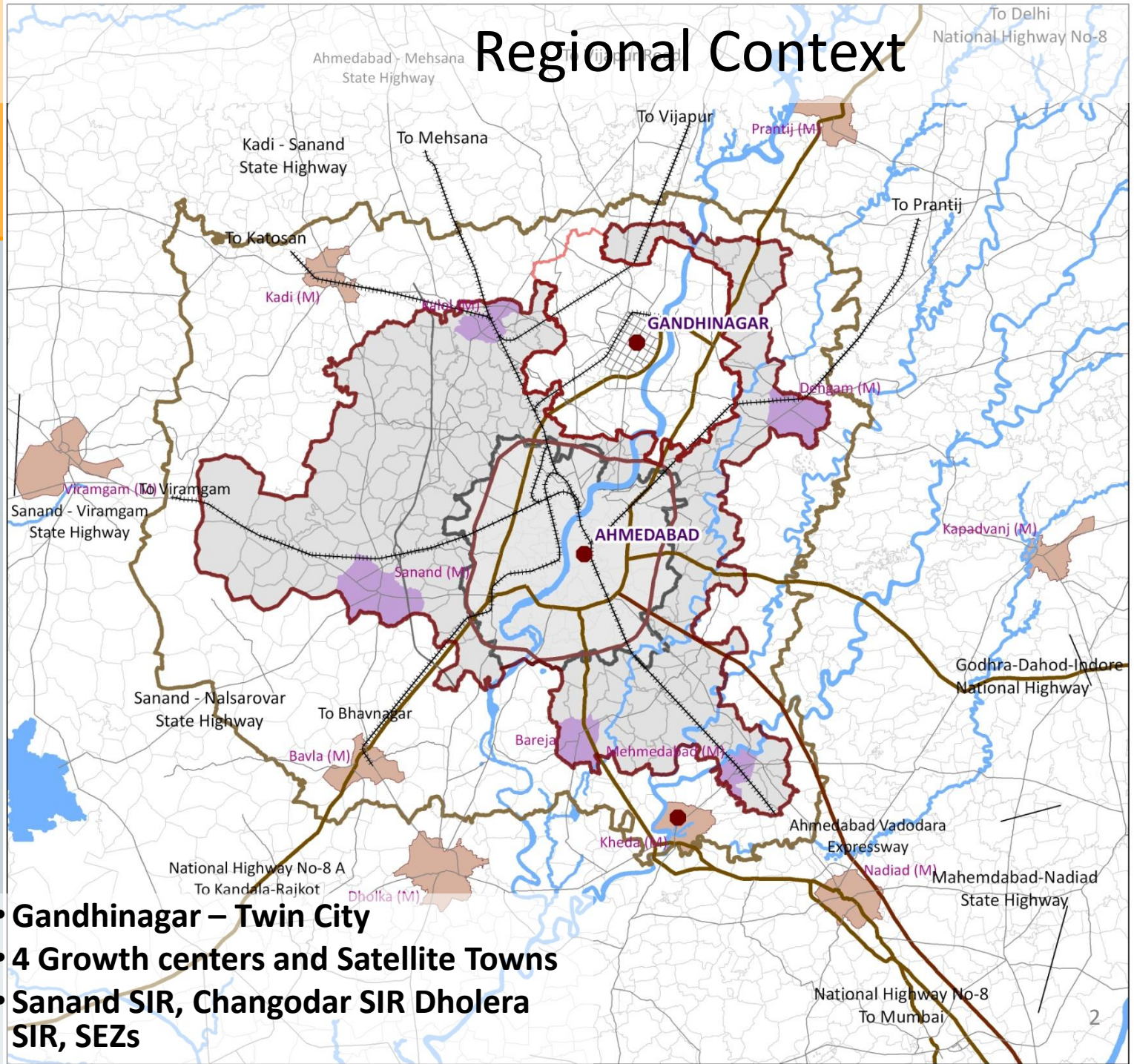
Regional Context



- **Gandhinagar – Twin City**
- **4 Growth centers and Satellite Towns**
- **Sanand SIR, Changodar SIR Dholera SIR, SEZs**

AHMEDABAD URBAN DEVELOPMENT AUTHORITY

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What motivated/helped us

- Used lessons learnt from other cities and cases for better decision making.
- Idea of integrated strategic planning and transport management
- Attempt to understands the complexities of urban transport problems and possible context-sensitive solutions.
- Recognized the need for integrated mobility planning

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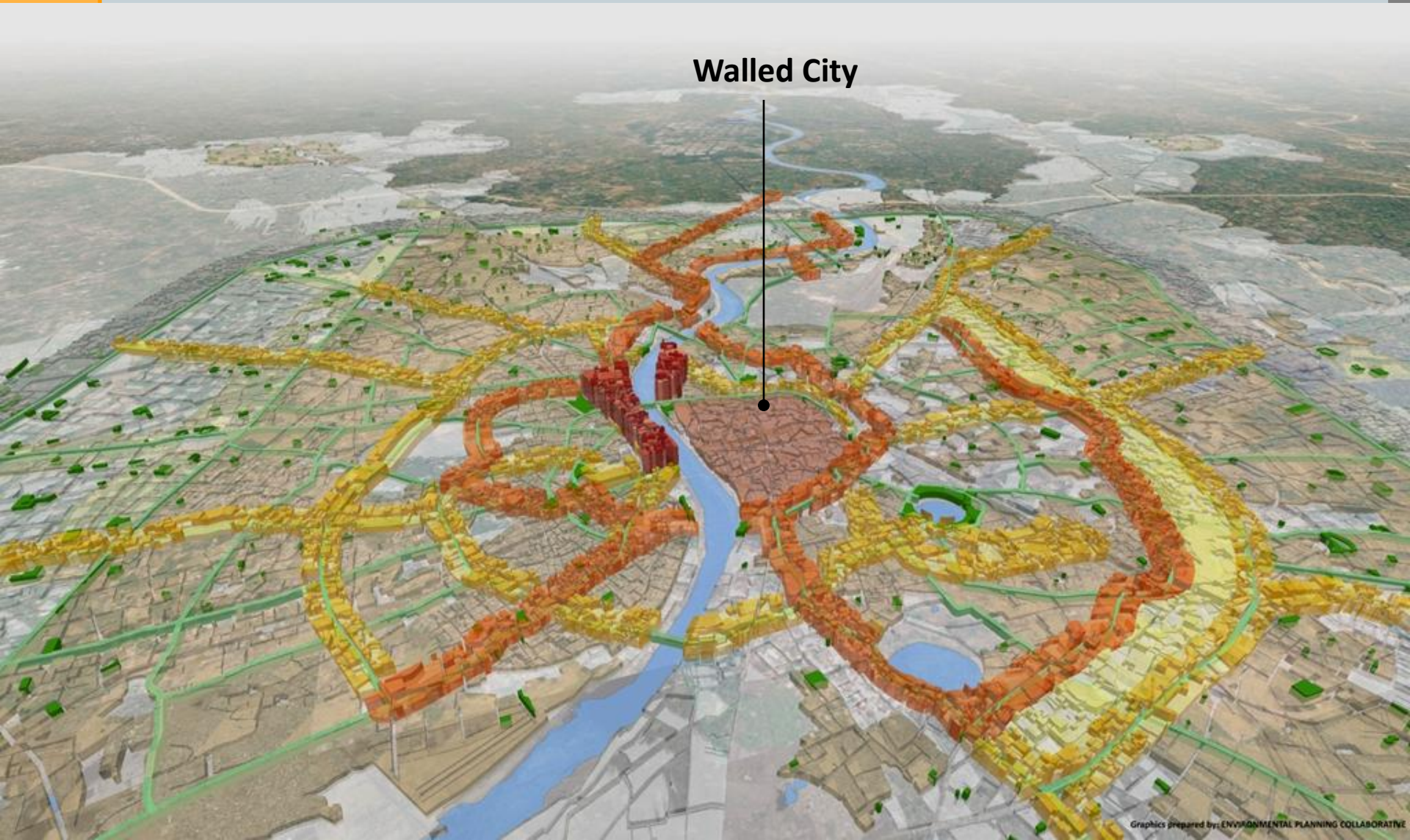
Learning from the historic “Core City”



Is it vibrant Commercial Hub?

Is it really Pedestrian friendly street ?

Mixed uses – Commercial on GF & Residential on upper floors

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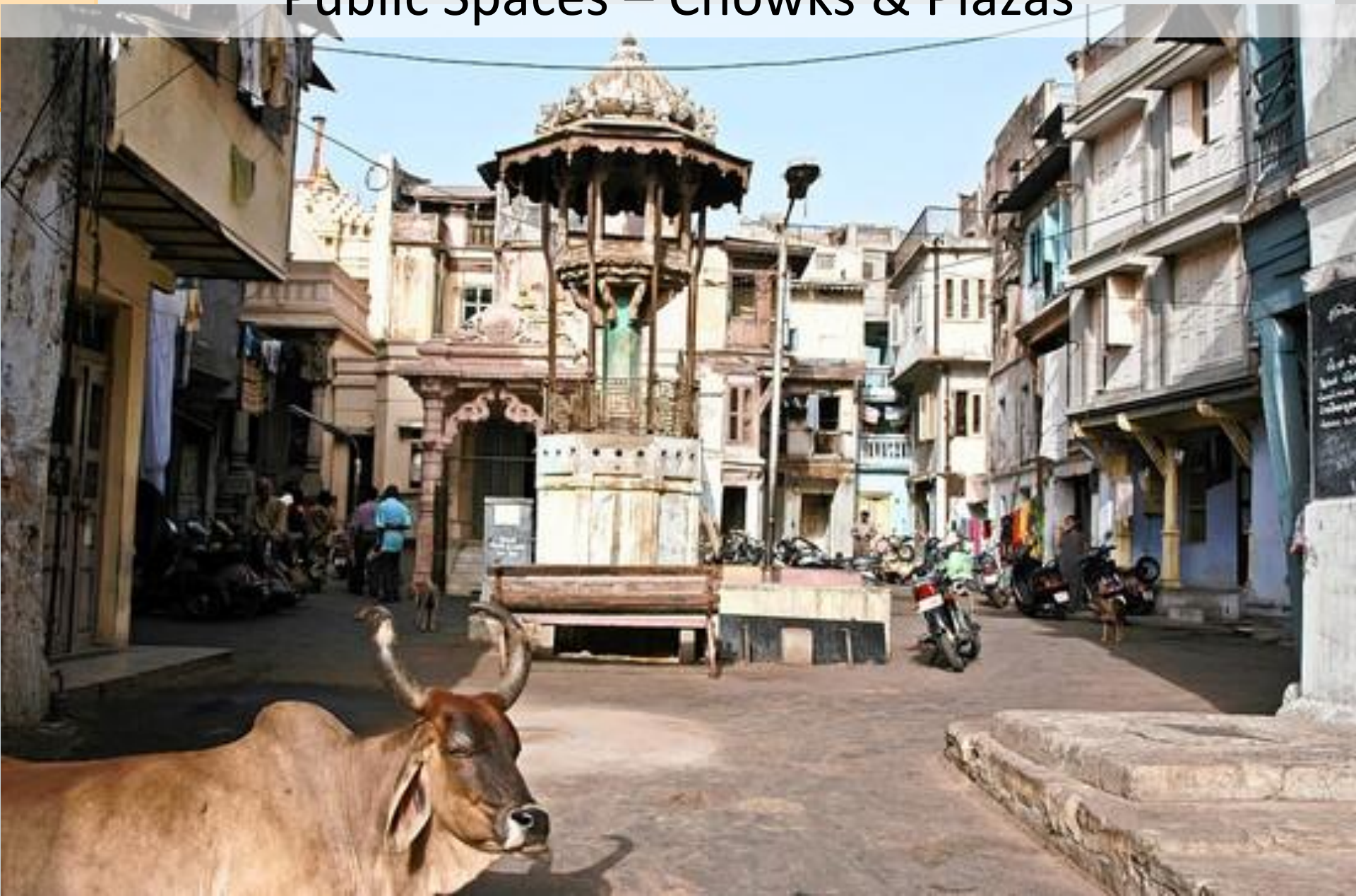
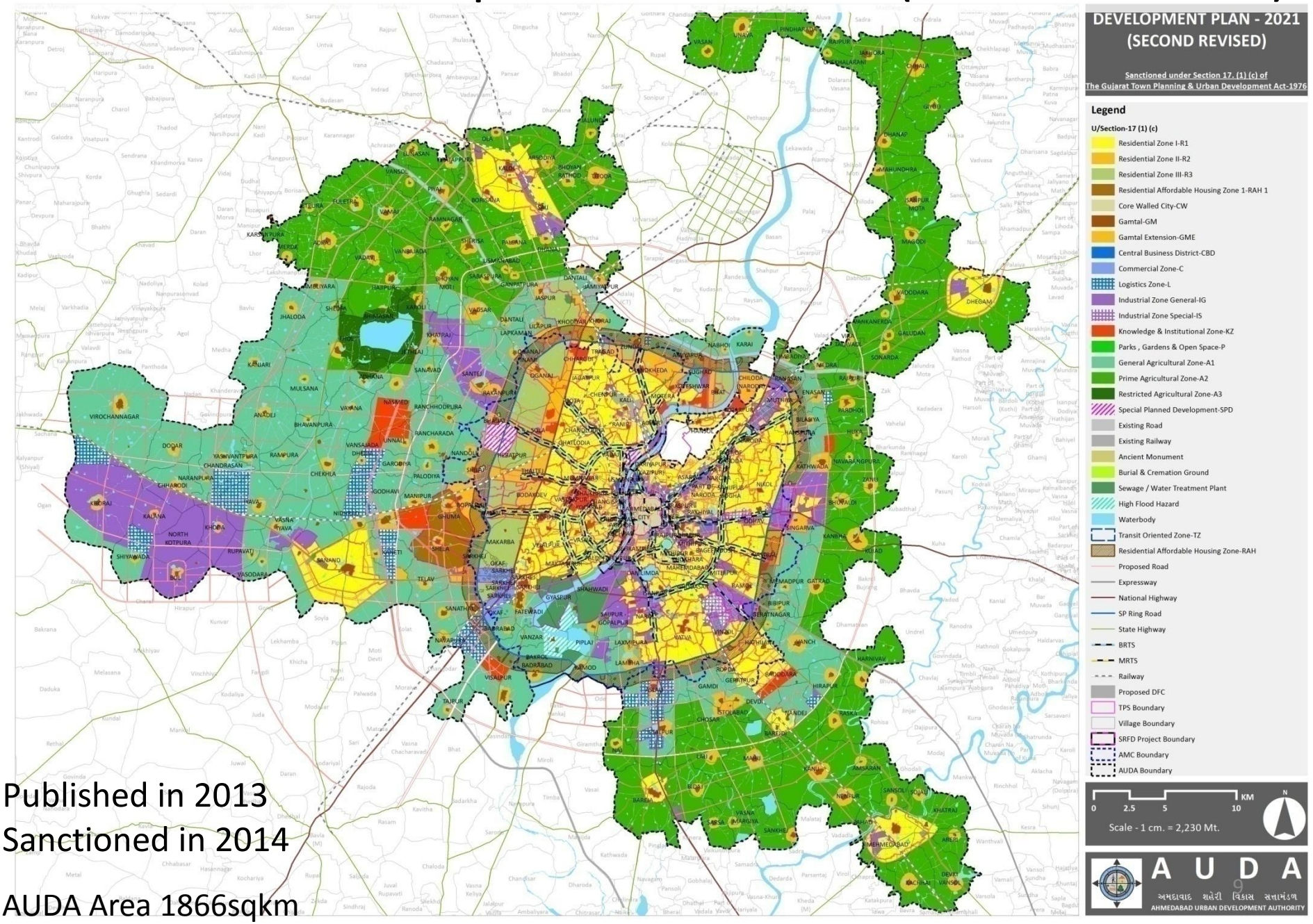
Is it well managed and easily accessible ?
Public Spaces – Chowks & Plazas



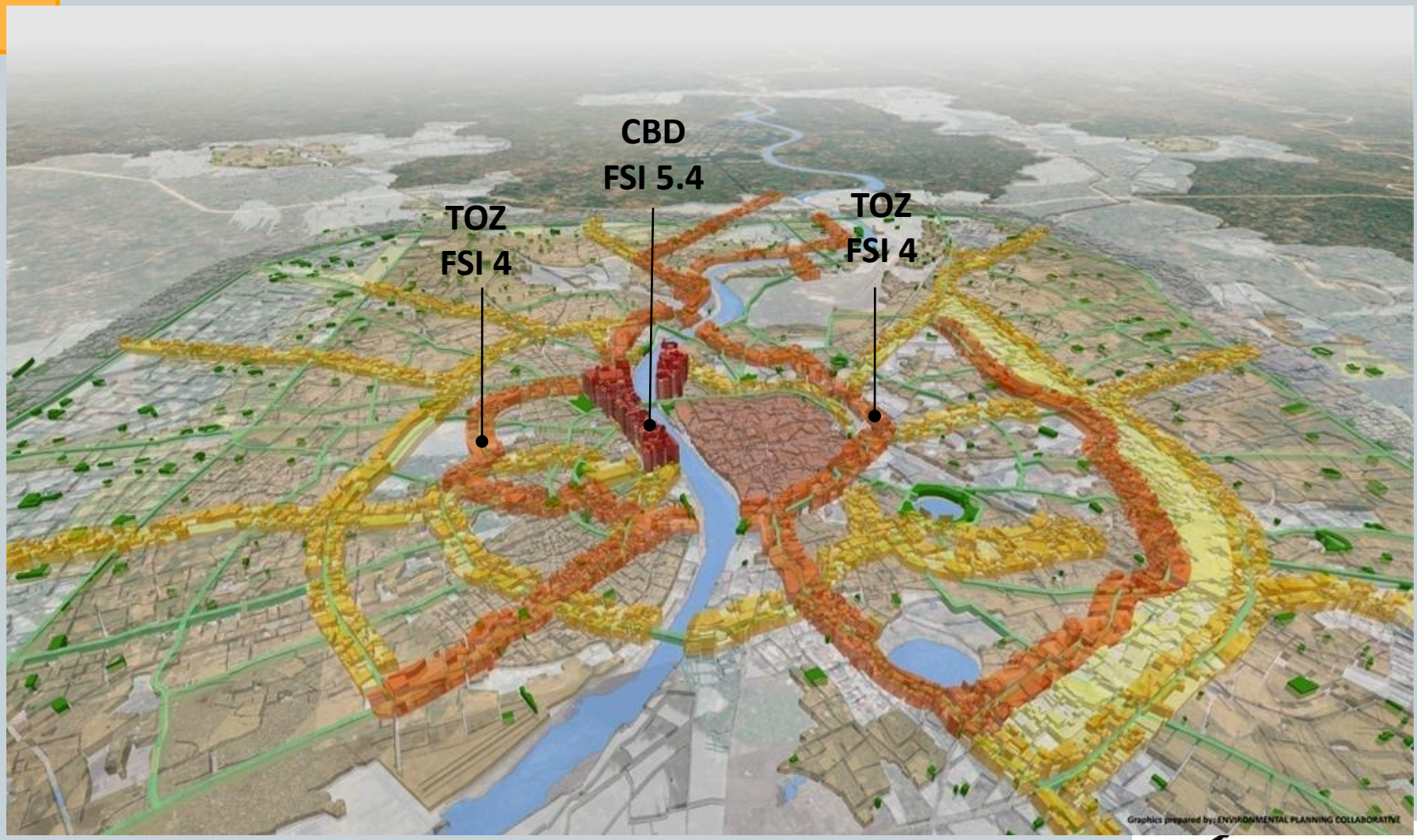
Sanctioned Development Plan 2021 (second revised)



Published in 2013

Sanctioned in 2014

AUDA Area 1866sqkm


CBD
FSI 5.4
TOZ
FSI 4
TOZ
FSI 4
Graphics prepared by: ENVIRONMENTAL PLANNING COLLABORATIVE

To meet up the need for integrated mobility planning

BRTS Length - 120.44 Kms Buffer Area - 40. Sq.Km

MRTS Length - 40.6 Kms

CBD Area 1.2sqkm

Managing Densification of Ahmedabad's Commercial Hub and Mixed-Use Corridors

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Local Area Plan

Planning or redefine the existing developed or undeveloped or developing area in terms of accessibility, walkability, and connectivity as well plan for future infrastructure, amenities and utilites requirements to sustain the future density and growth.

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The challenge is to ensure that this transformation does not lead to stressed infrastructure or more congestion

The Ahmedabad Urban Development Authority and the Ahmedabad Municipal Corporation are developing a plan to meet this challenge

How?

Planning Initiations

- Bombay Town Planning Act,1915 (Provided for T.P. Schemes only)
  - 11 TP Schemes – 1st TPS Jamalpur, 1920
- Bombay Town planning act, 1954 (DP & T.P. Schemes for Municipal areas)
  - 20 TP Schemes
  - First DP AMC – 1965, Revised DP AMC – 1983
- **Gujarat Town Planning & Urban Development Act, 1976**
- Formation of Area / Urban Development Authority
  - 134 TP Schemes AUDA
  - First DP AUDA – 1987,
  - First Revised DP AUDA – 2002
  - Second revision – Sanctioned Development Plan -2021

Amendment in Gujarat Town Planning & Urban Development Act, 1976

-Local Area Plan

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Urban Planning Process

3 tier Planning Process

- First Tier **"Development Plan" (Macro Level)**

  - AUDA (AUDA+ AMC)

  Zoning Proposals
  Regulation for Development
  City level Transportation and infrastructure planning and implementation

- Second Tier **"Town Planning Schemes" (Micro Level)**

  - AUDA + AMC

  Land reconstitution
  Neighborhood level road network , social and physical infrastructure
  Financing of neighborhood level infrastructure

  – Third Tier "Local Area Plan" (Micro Level)

  - AUDA + AMC

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Keys to prepare and implement Local Area Plan

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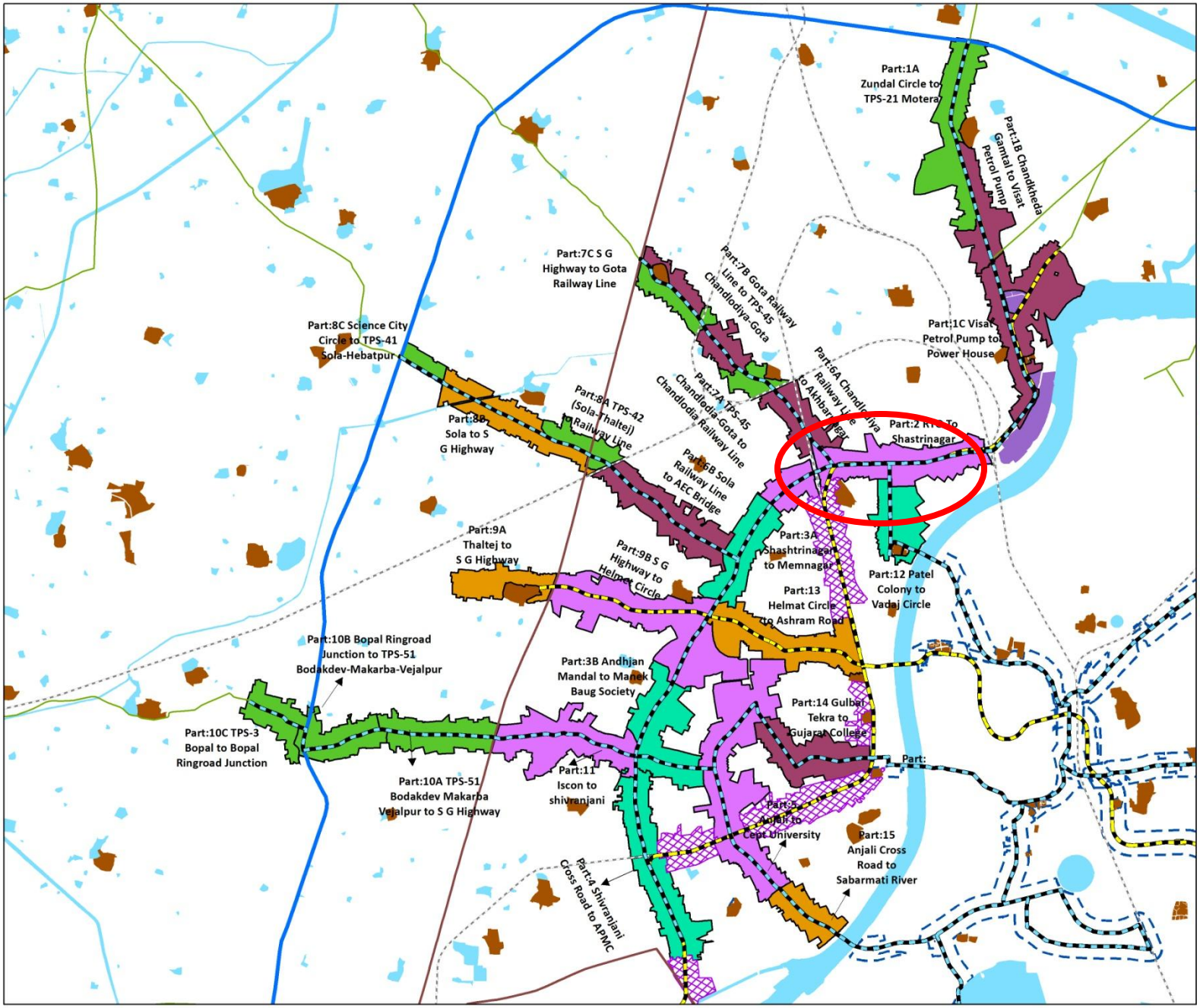
Transit Corridor– Western side



TOZ AREA PLANNING

Legend

- BRTS
- MRTS
- Expressway
- National Highway
- SP Ring Road
- State Highway
- Railway
- Draft TP Scheme
- Phase 1
- Phase 2
- Phase 3
- Phase 4
- New Metro Part as Per U/S-19
- Industrial Zone General-IG
- Gamtal-GM
- Waterbody
- Transit Oriented Zone-TZ

0 0.45 0.9 1.8 Km

Scale - 1 cm. = 575 Mt.

N

AUDA
અમદાવાદ શહેરી વિકાસ સત્તામંડળ
AHMEDABAD URBAN DEVELOPMENT AUTHORITY

Aspects to be considered for Transit Oriented Zone

- Higher density development
- Pedestrian friendly streets
- Green Network
- Efficient use of front margin
- Efficient use of ground
- Higher transit connectivity
- High intensity of infrastructure
- Well designed and well managed public parking (On-street & Off-street)
- Destine to city tourist places, Economic Centre, Commercial hub and major transit route

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1. Facilitating the Public Transport
2. Improving walkability by reducing block sizes
3. Expanding the public realm

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UNDERSTANDING THE AREA

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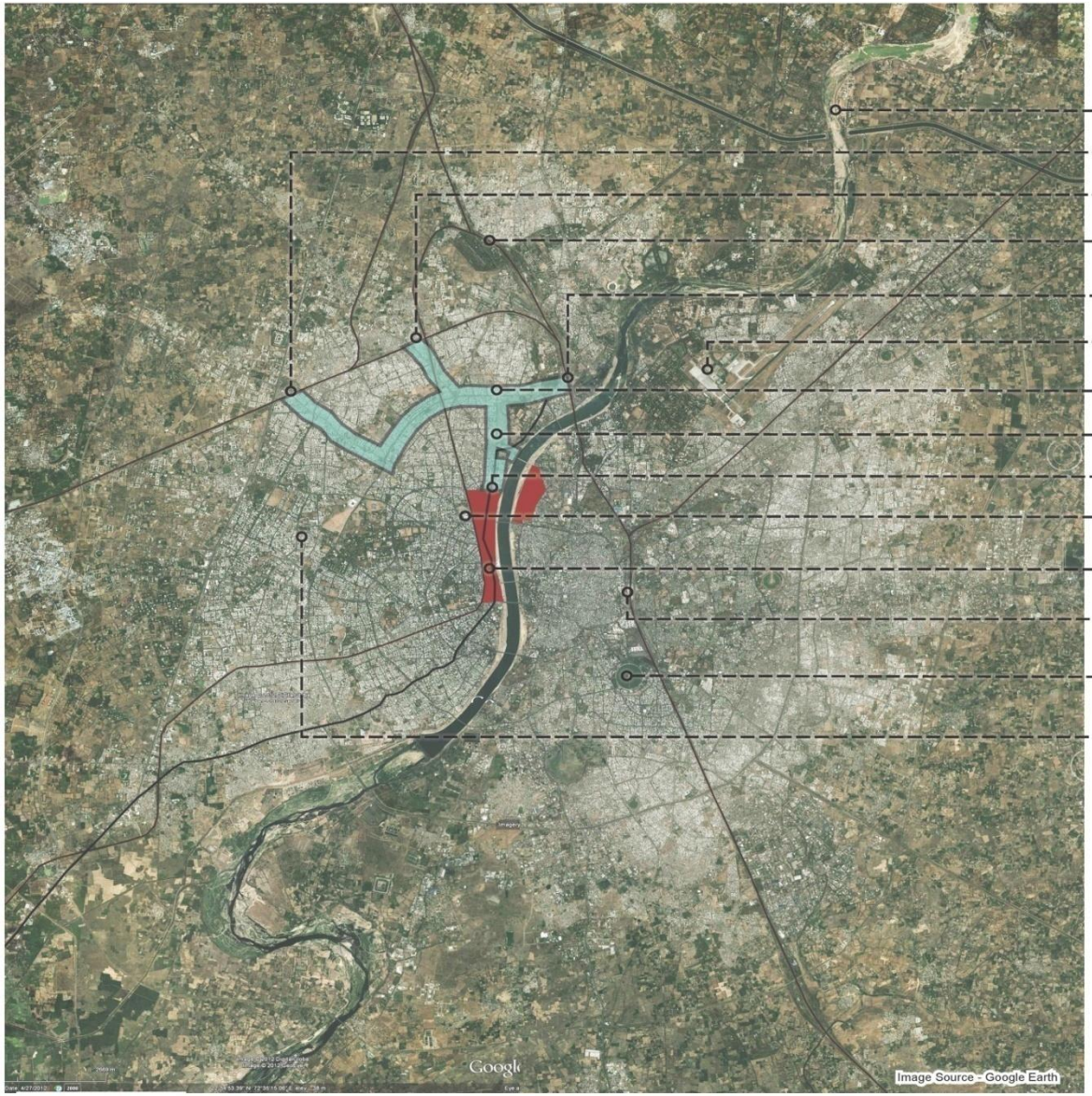
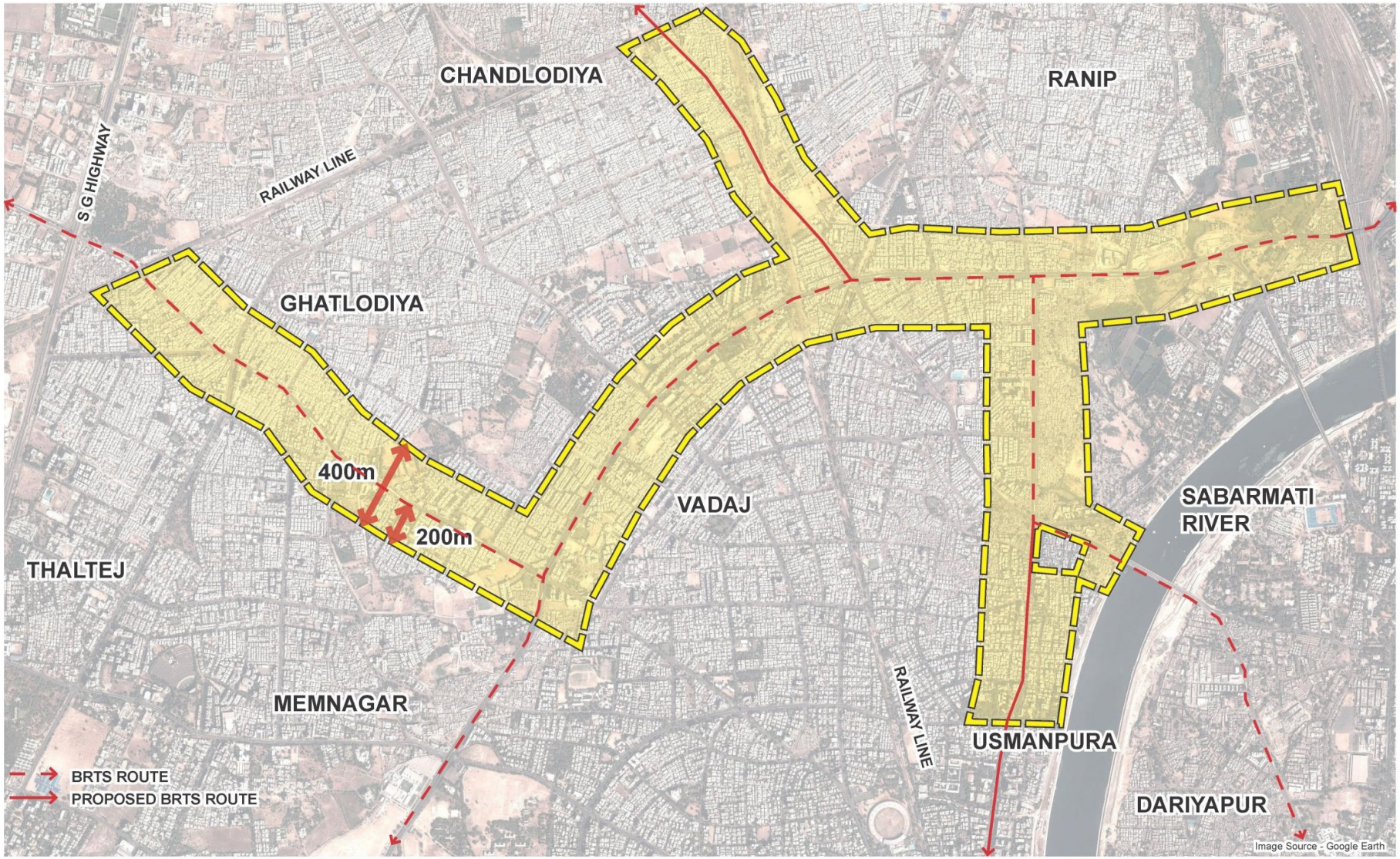
Local Area Plan – TOZ Wadaj



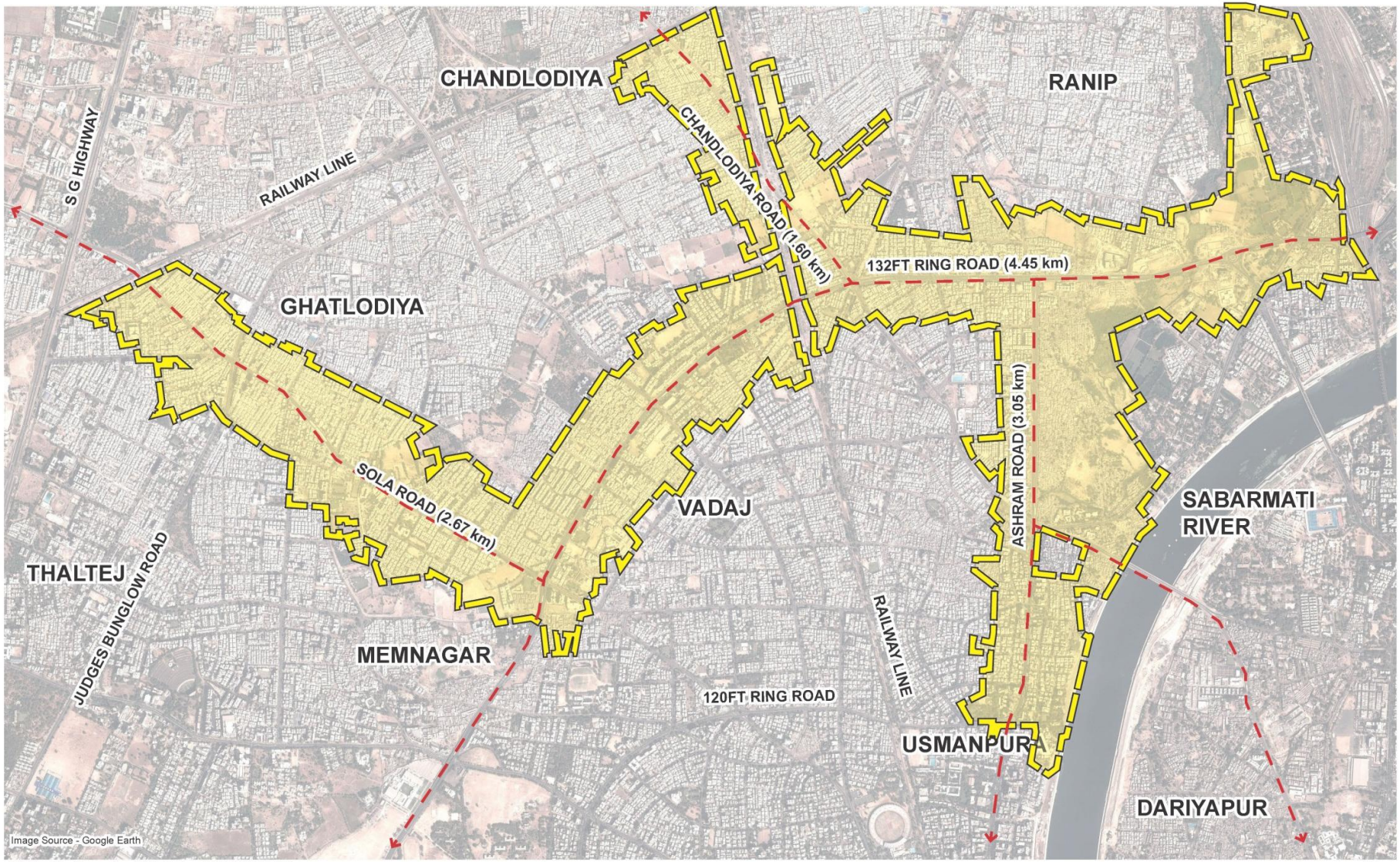


AREA - 4.32 SQ KMS

N

0 100 200 500 1000M

SOURCE: AUDA



AREA (sm): SITE - 6121896
GAMTAL - 48394
TOTAL - 5497645 (5.49 SQ KMS)

N

0 100 200 500 1000M

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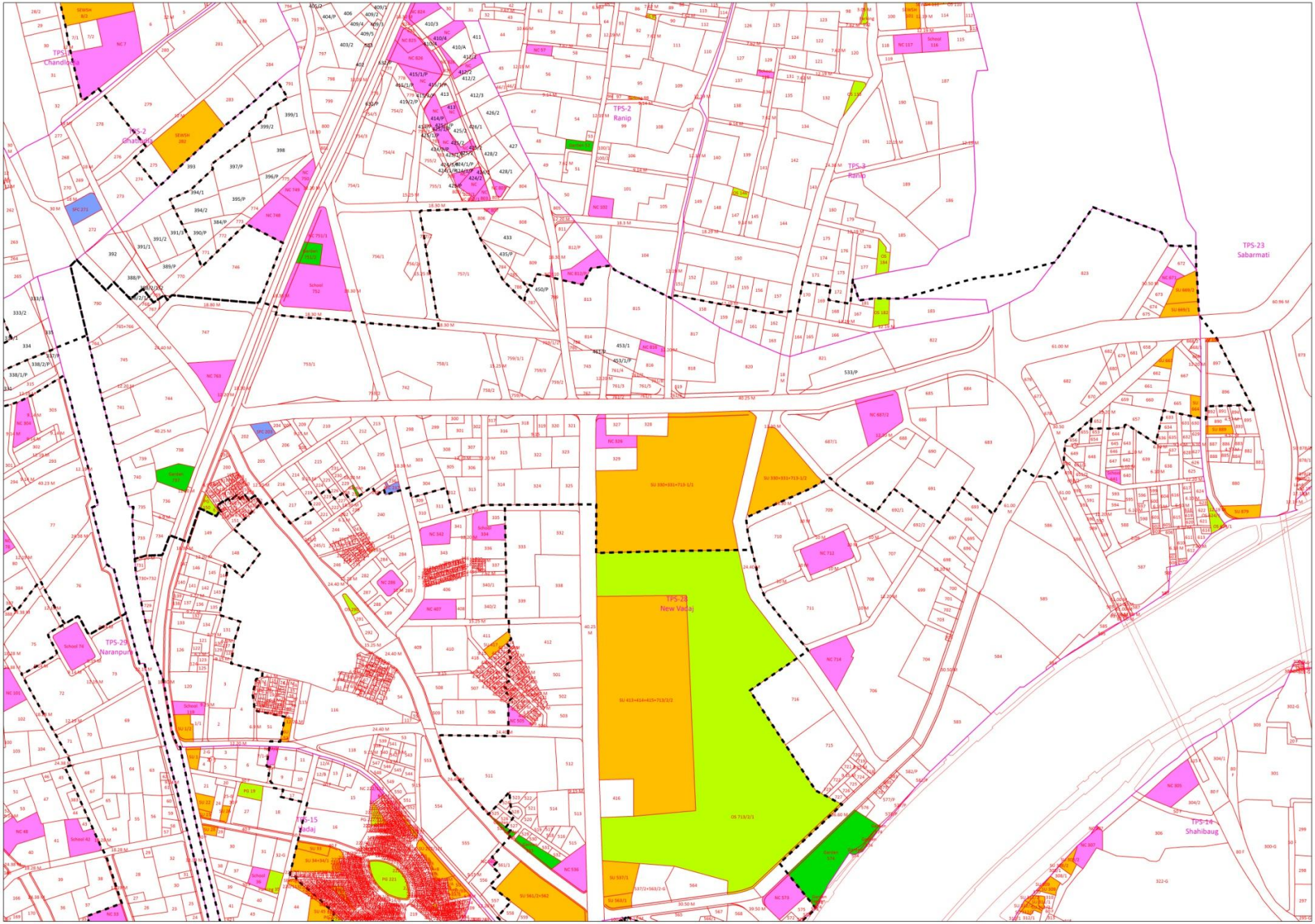
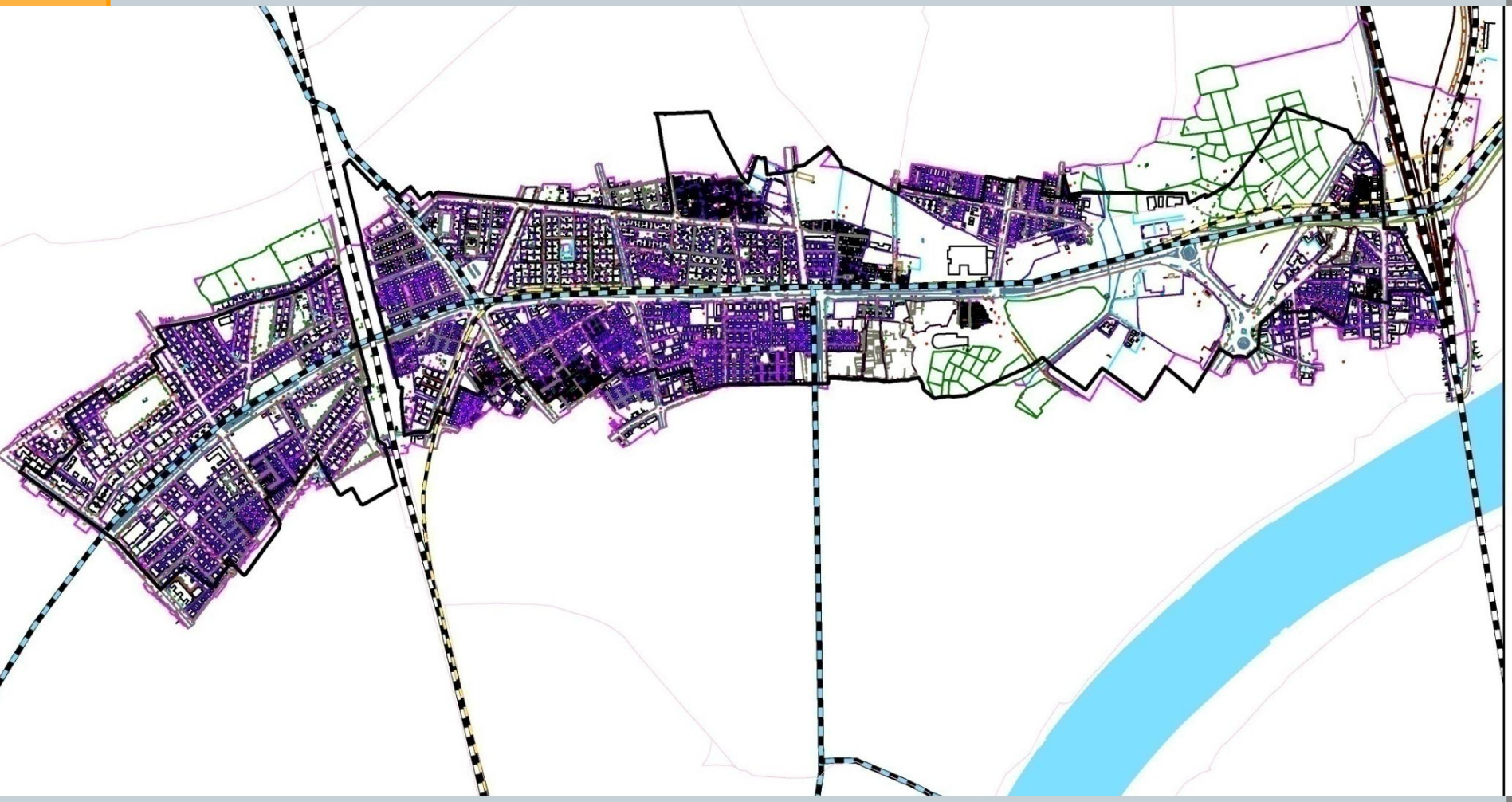
TOZ Part 2 as per Zoning

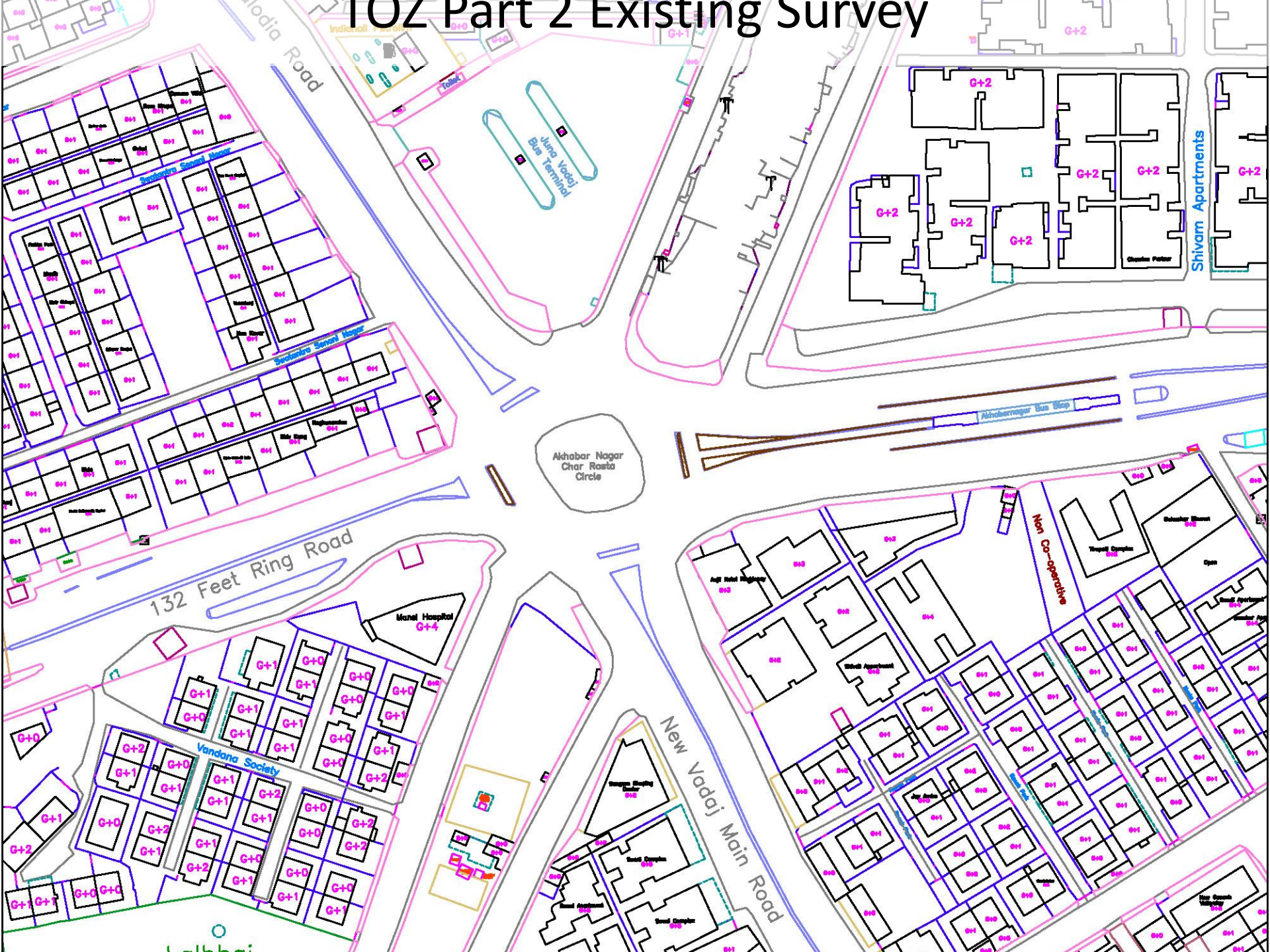
TOZ Part 2 - TPS Map with Reservation



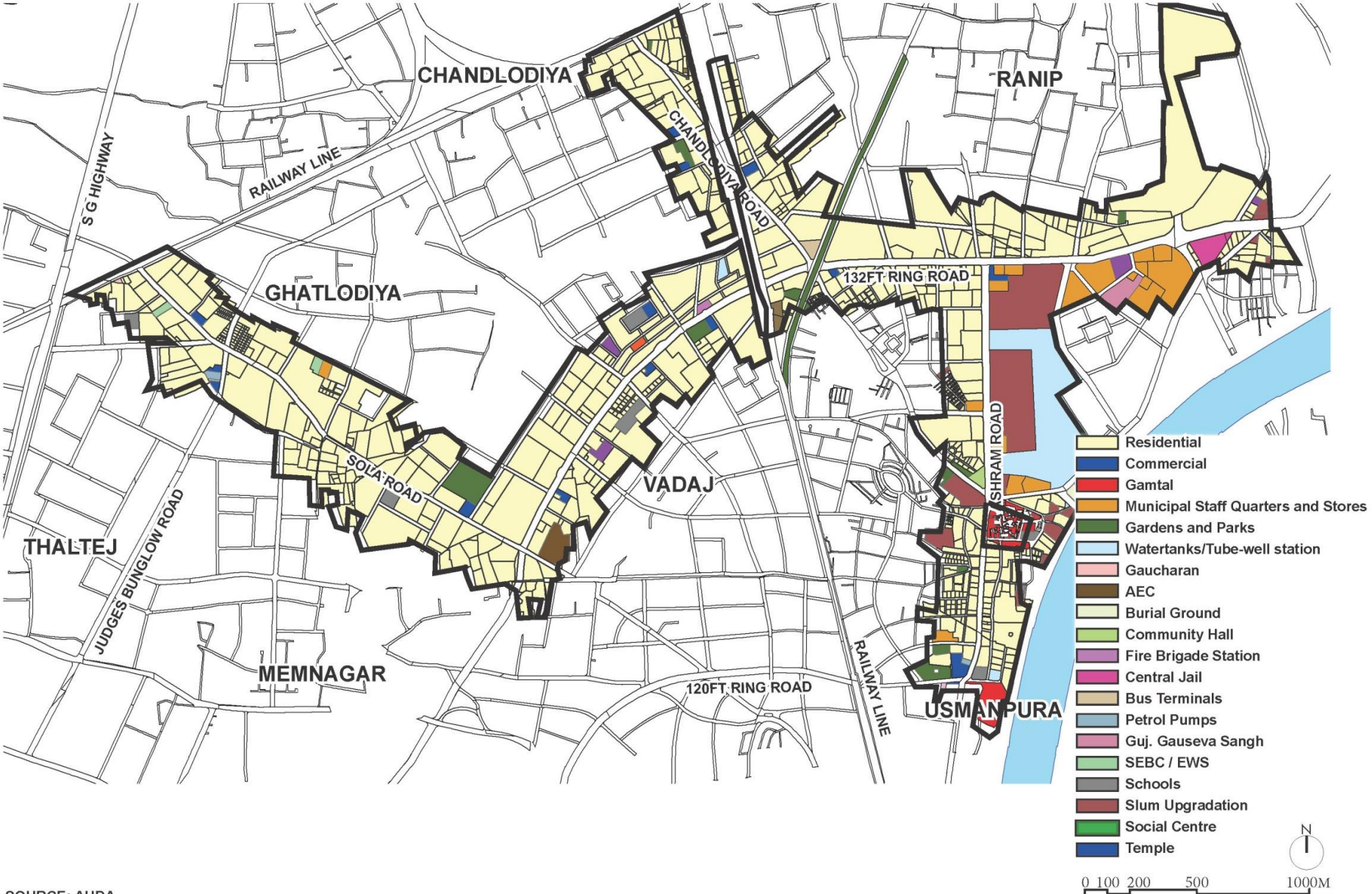
TOZ Part 2 Existing Survey



TOZ Part 2 Existing Survey



Land Use Analysis



SOURCE: AUDA

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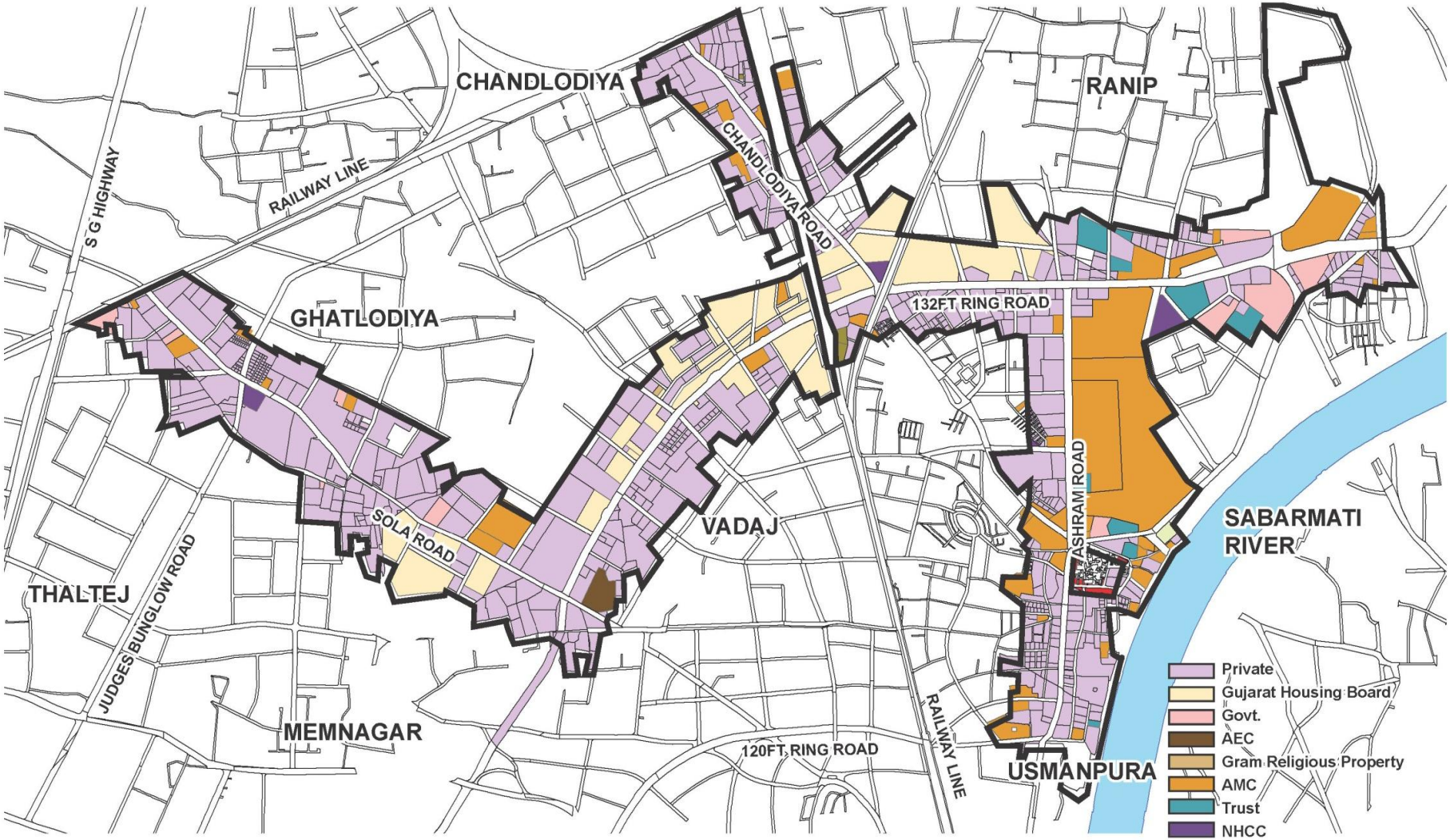
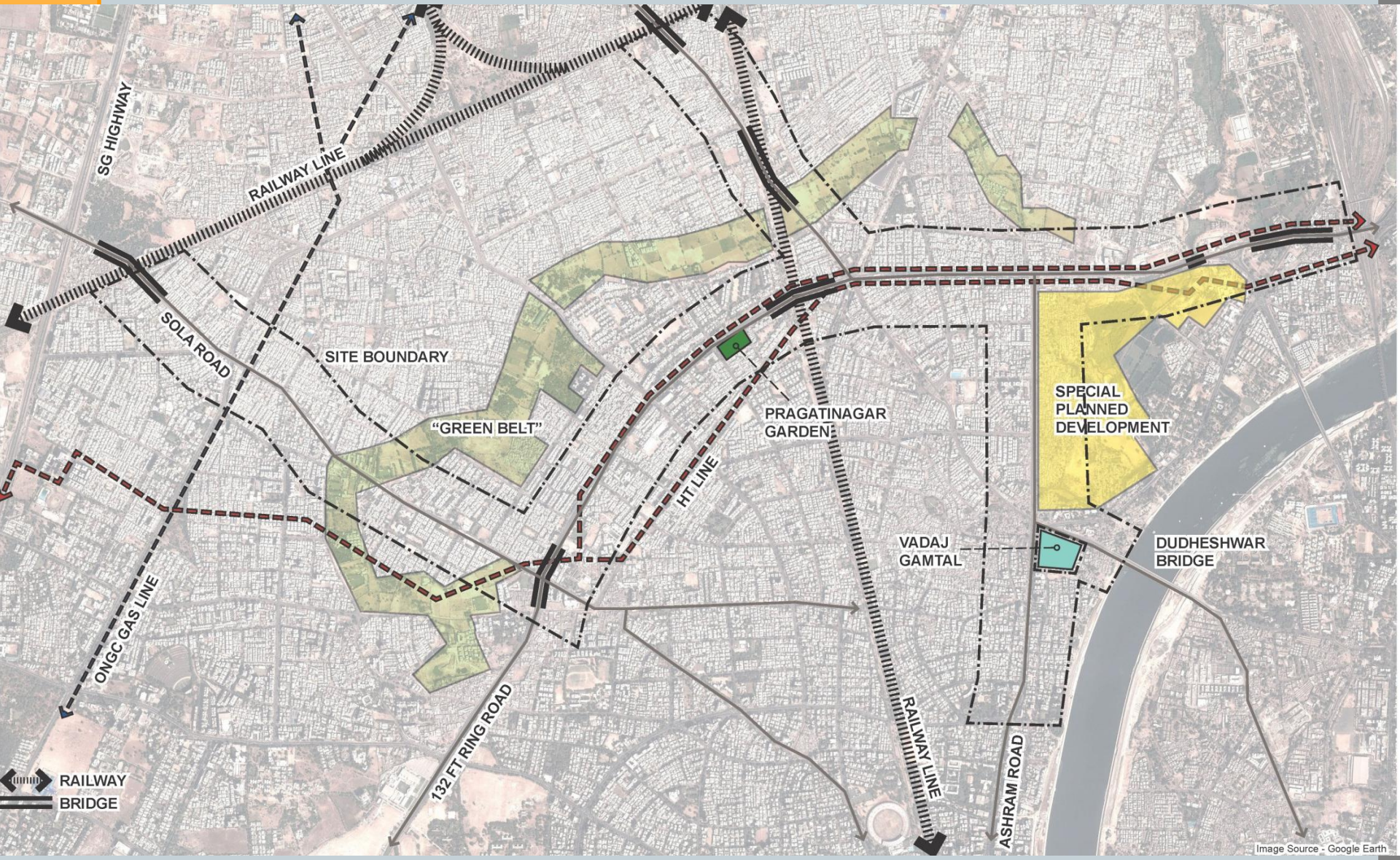
Ownership Analysis

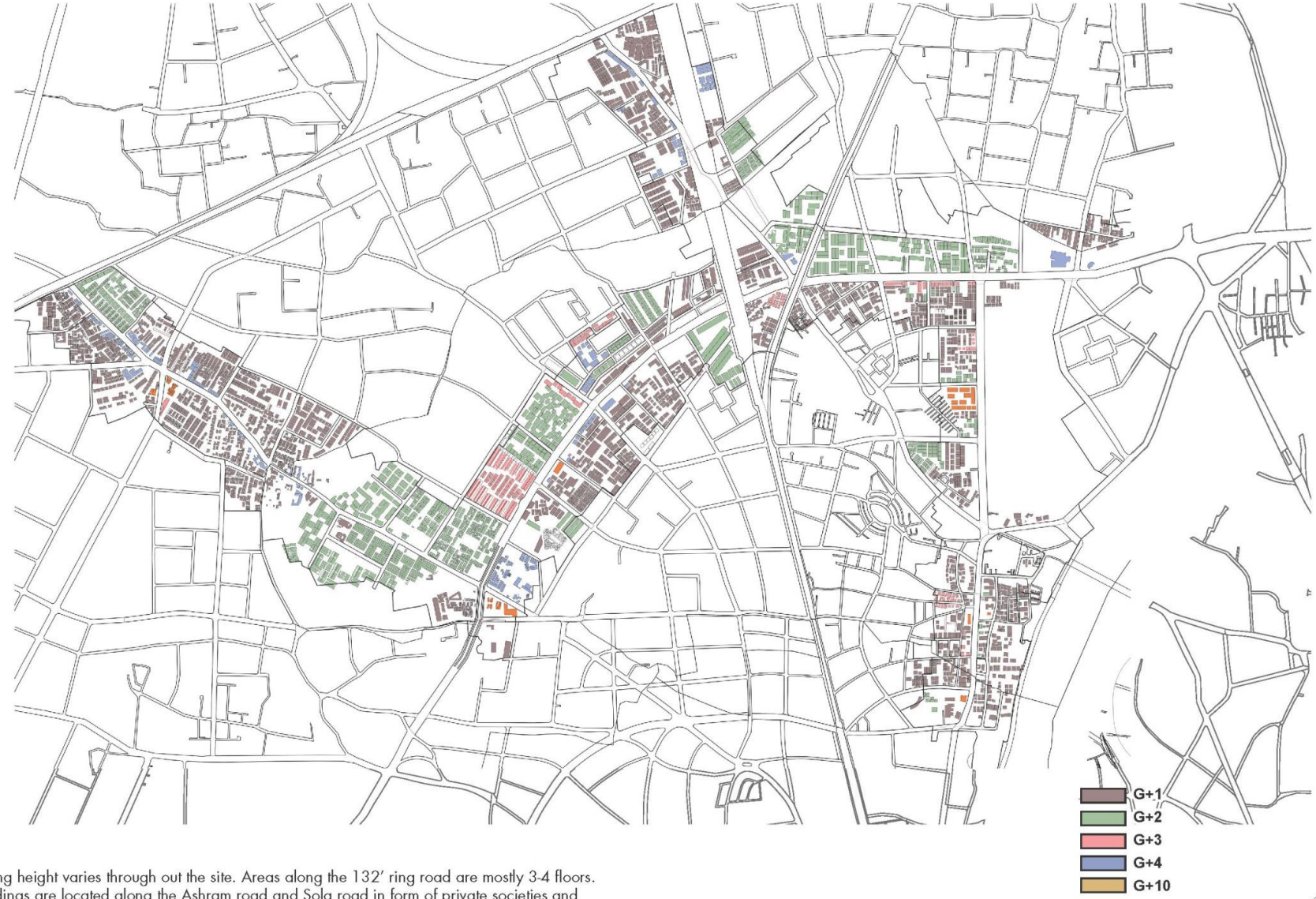


SOURCE: AUDA

Analysis of Bridges & Infrastructure



Building Height Analysis



The building height varies through out the site. Areas along the 132' ring road are mostly 3-4 floors. Taller buildings are located along the Ashram road and Sola road in form of private societies and Hotels.

Build form –132 ft. Ring Road

ASHOPALAV APARTMENTS
Use & Typology - Residential Low Rise
Ownership & Type - Private/ Gujarat Housing Board

SAMPARN TOWER
Use & Typology - Residential High Rise
Ownership & Type - Private

SHANTI ARCADE
Use & Typology - Commercial (Shops & Offices)
Ownership & Type - Private

GUJARAT HOUSING BOARD
Use & Typology - Government Office
Ownership & Type - Public

SHIVAM APARTMENTS
Use & Typology - Residential Low Rise
Ownership & Type - Private

SHRIKANT NAGAR, RONAK PARK ROAD
Use & Typology - Residential Bunglows
Ownership & Type - Private

Build form – Juna Vadaj- Ramapir Tekra- Ashram Road

HOTEL FORTUNE LANDMARK
Use & Typology - Hotel
Ownership & Type - Corporate

GOKULNAGAR SOCIETY
Use & Typology - Residential Bunglow
Ownership & Type - Private

JUNA WADAJ BUS TERMINAL
Use & Typology - Government - Transit
Ownership & Type - Public

JUNA WADAJ SLUM AREA
Use & Typology - Residential Slum
Ownership & Type - Public/Private

OZONE AANGAN
Use & Typology - Residential High Rise
Ownership & Type - Private

NEEL COMPLEX
Use & Typology - Residential Low Rise
Ownership & Type - Private

Facilitating the Public Transport

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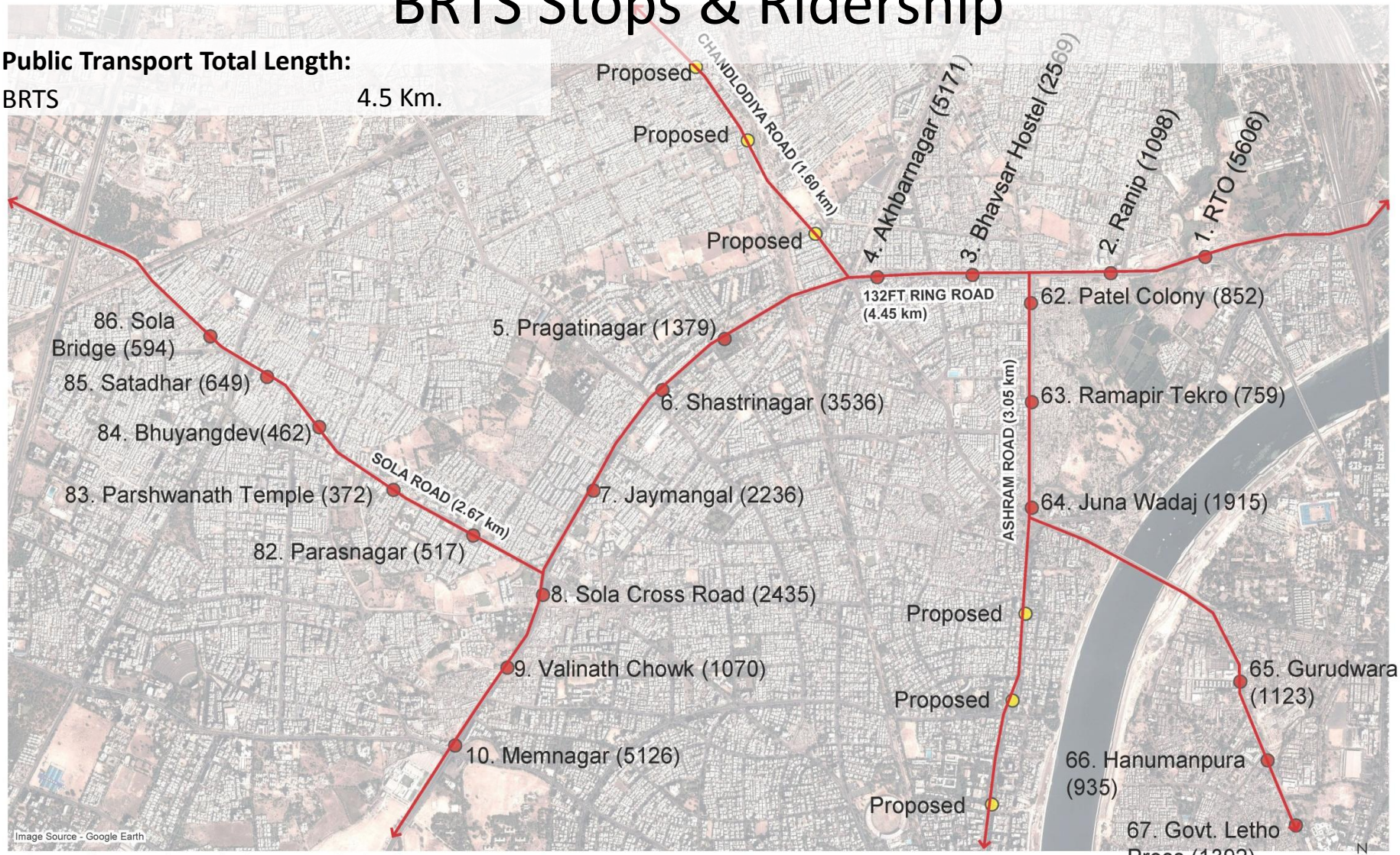
BRTS Stops & Ridership

Public Transport Total Length:

BRTS 4.5 Km.



TOTAL 21 EXISTING & NEW STOPS
TOTAL RIDERSHIP PER DAY : 39796
TOTAL ROUTE LENGTH : 11.77 KM

N

0 100 200 500 1000M

BRTS STOP & RIDERSHIP

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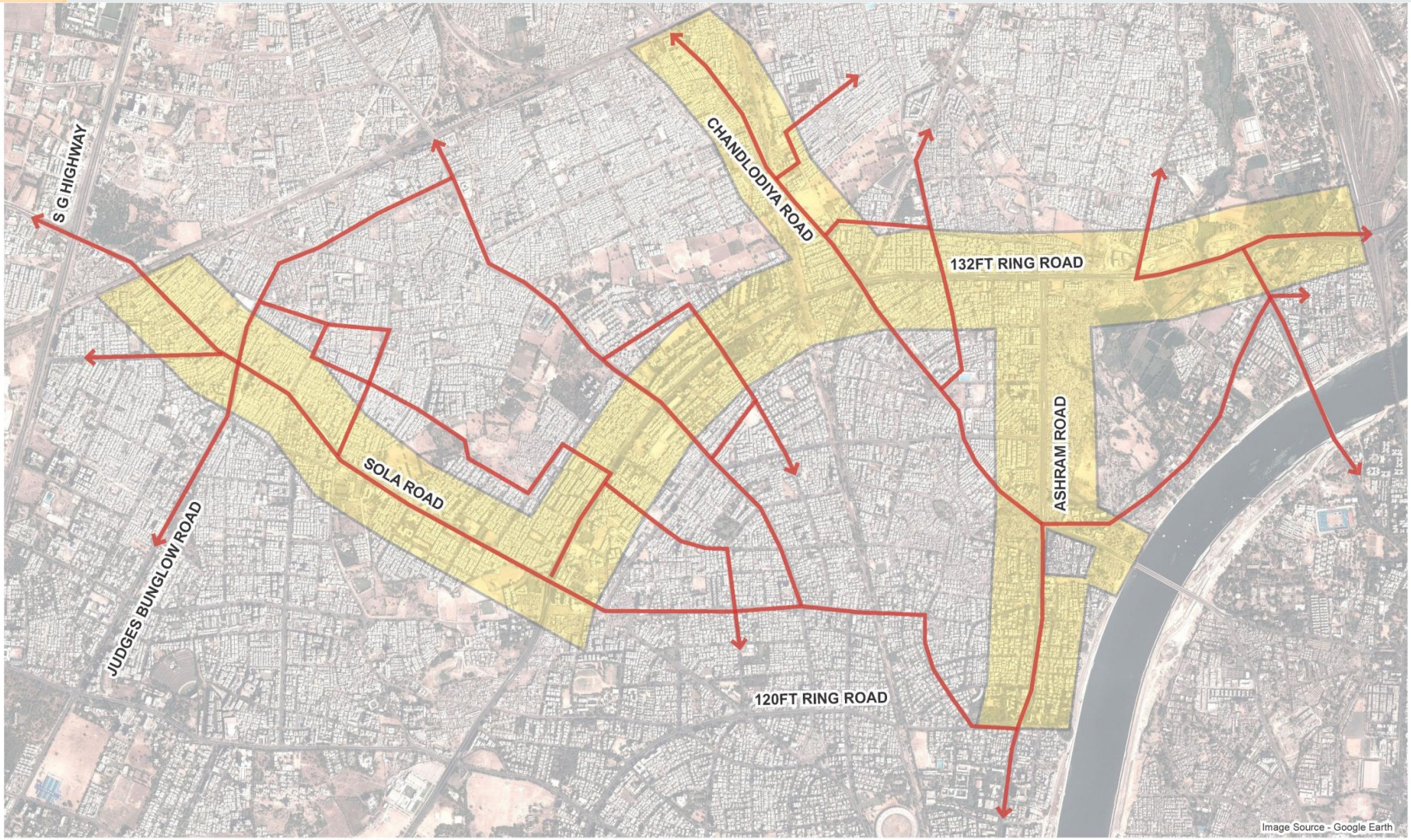
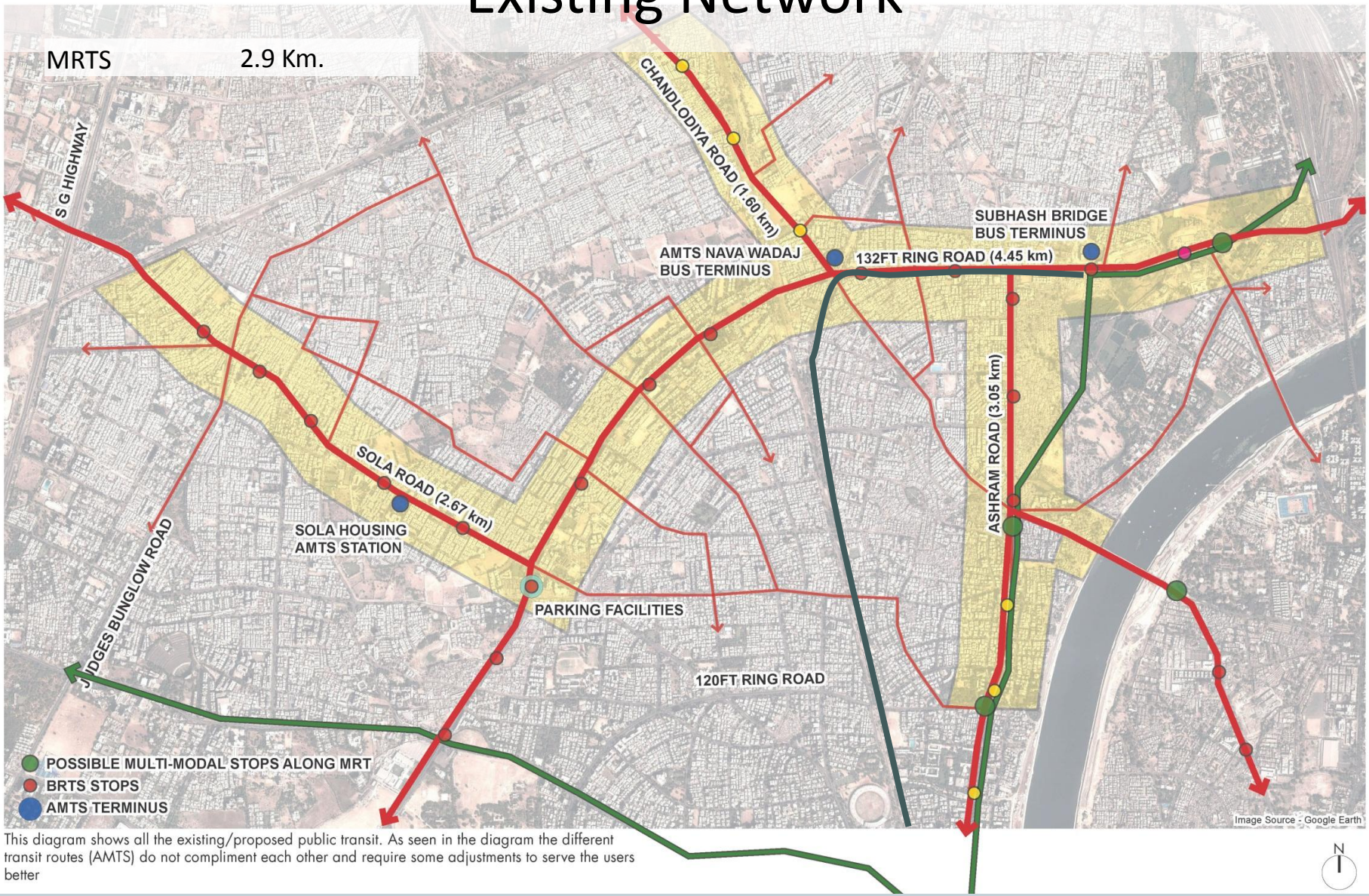
AMTS Route



The present AMTS route does not compliment the BRTS. The AMTS network requires redesign to better serve the transit users. In some cases the AMTS and BRTS follow the same route which may be unnecessary. While some areas are not well served, a well-designed AMTS that work with BRTS will help increase the overall use of the public transit system and ridership.

N

Existing Network



This diagram shows all the existing/proposed public transit. As seen in the diagram the different transit routes (AMTS) do not compliment each other and require some adjustments to serve the users better

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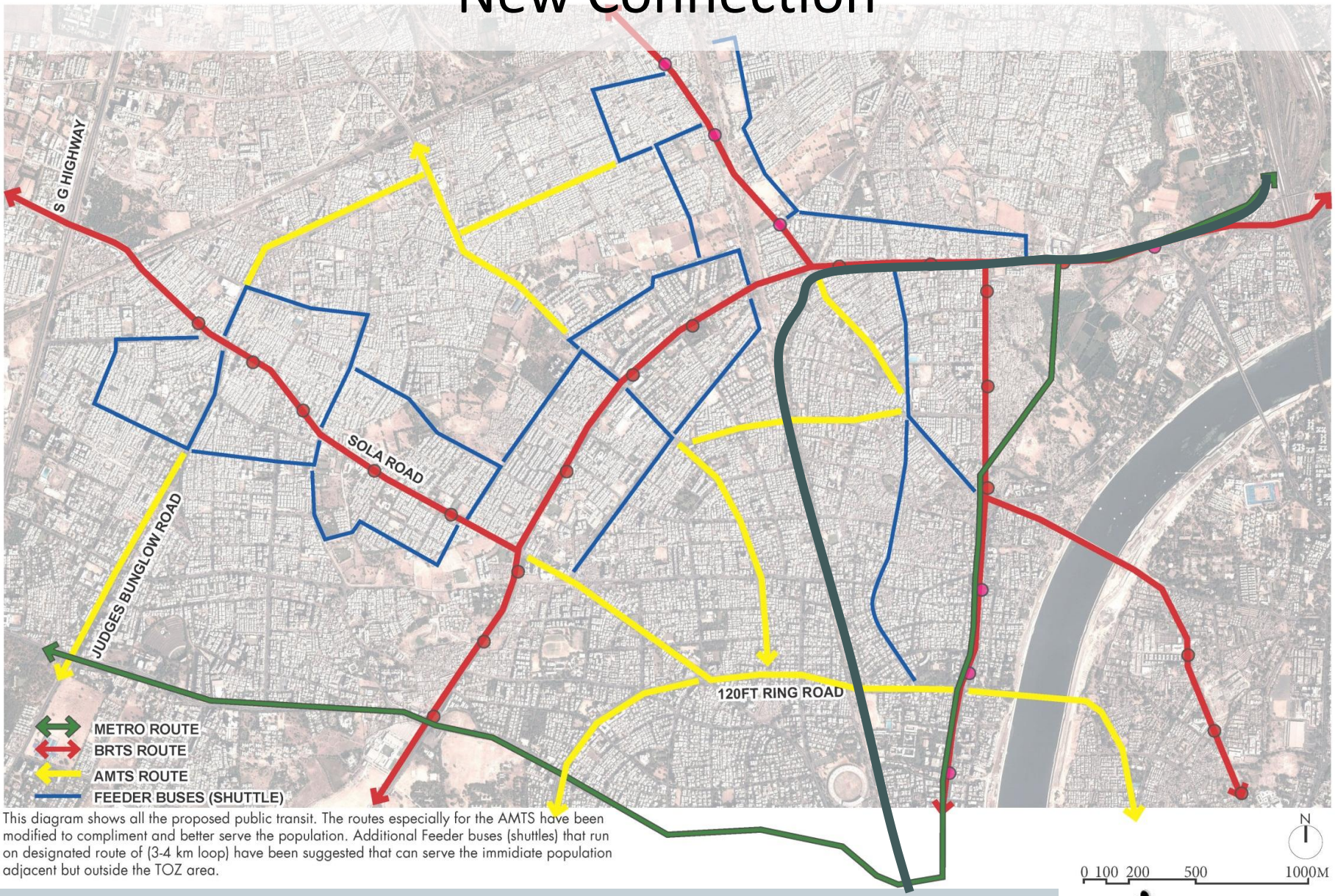
New Connection



This diagram shows all the proposed public transit. The routes especially for the AMTS have been modified to compliment and better serve the population. Additional Feeder buses (shuttles) that run on designated route of (3-4 km loop) have been suggested that can serve the immidiate population adjacent but outside the TOZ area.

Existing BRTS Station

BEFORE

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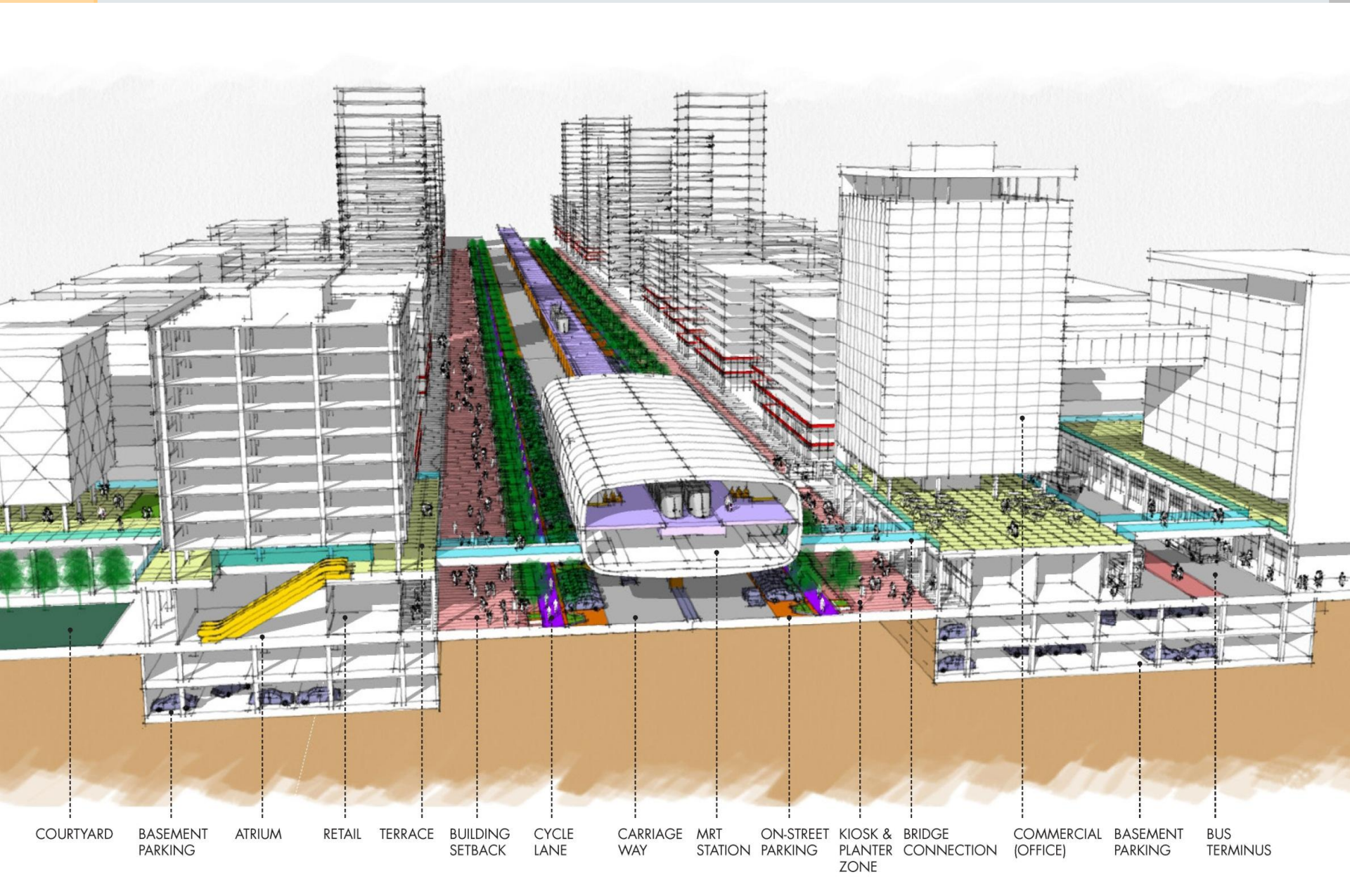
Propose Plaza at BRTS Station

AFTER

Propose Schematic View Near MRT Station



Improving walkability

by reducing block sizes

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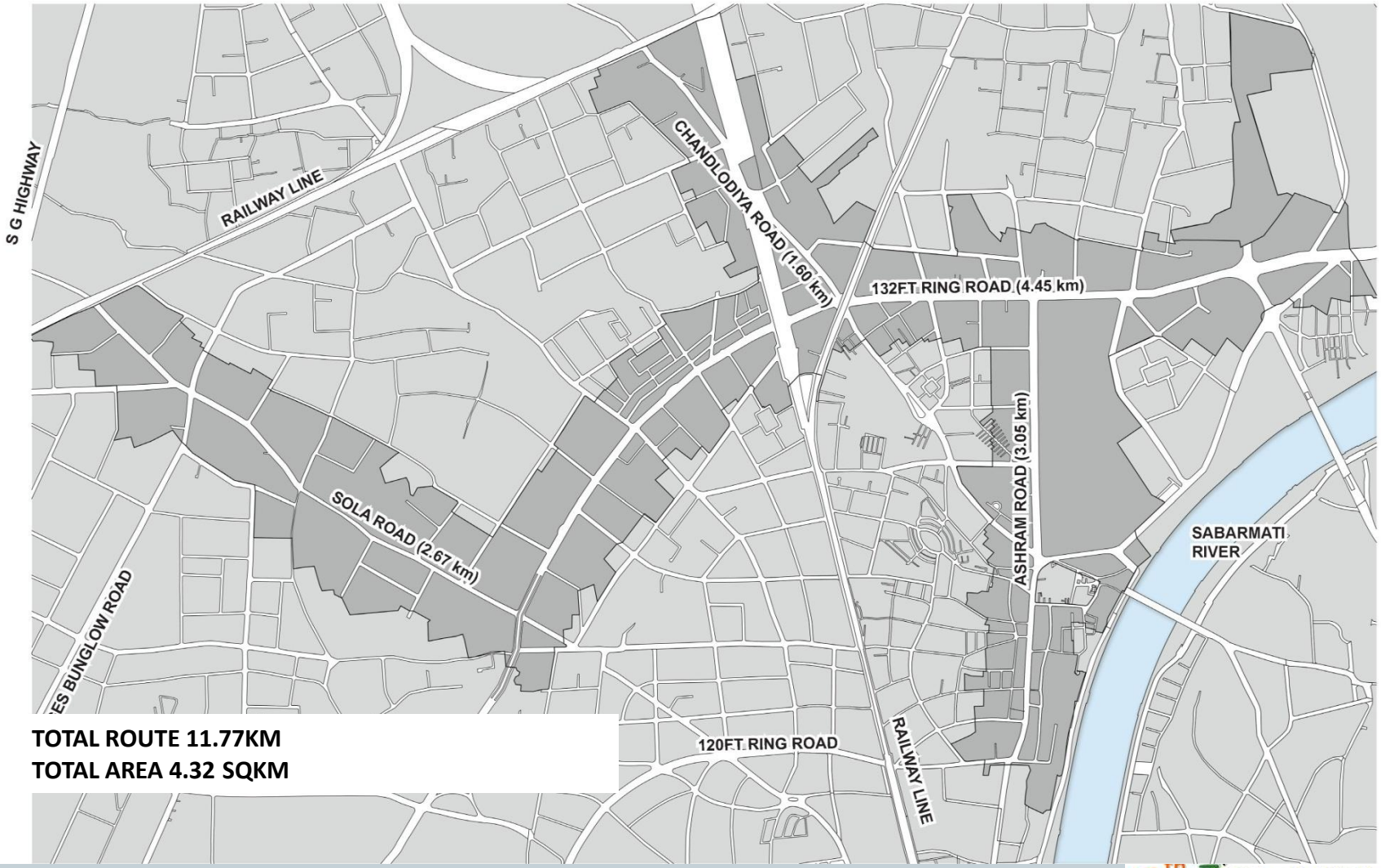
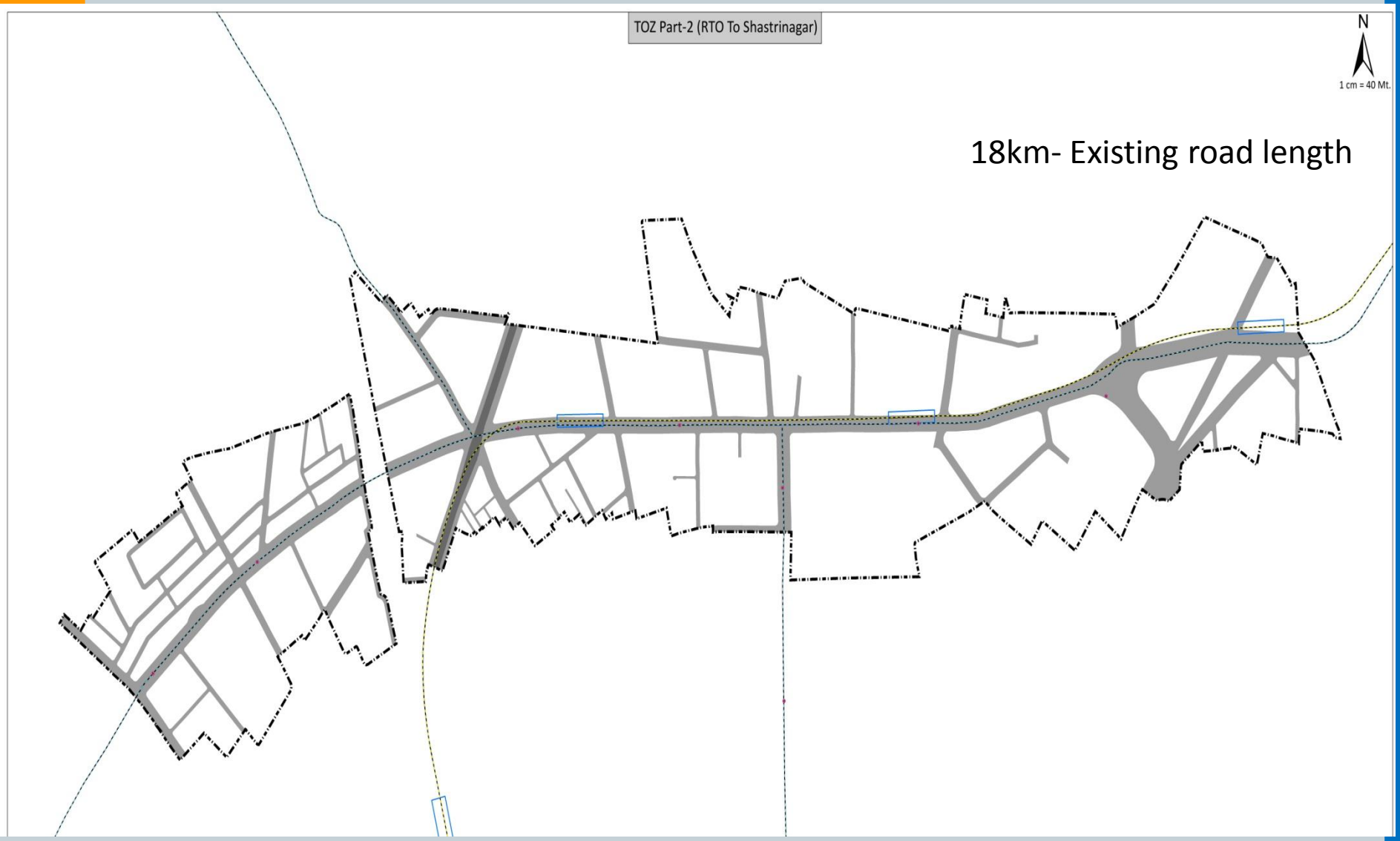
Existing Street Network– TOZ Wadaj

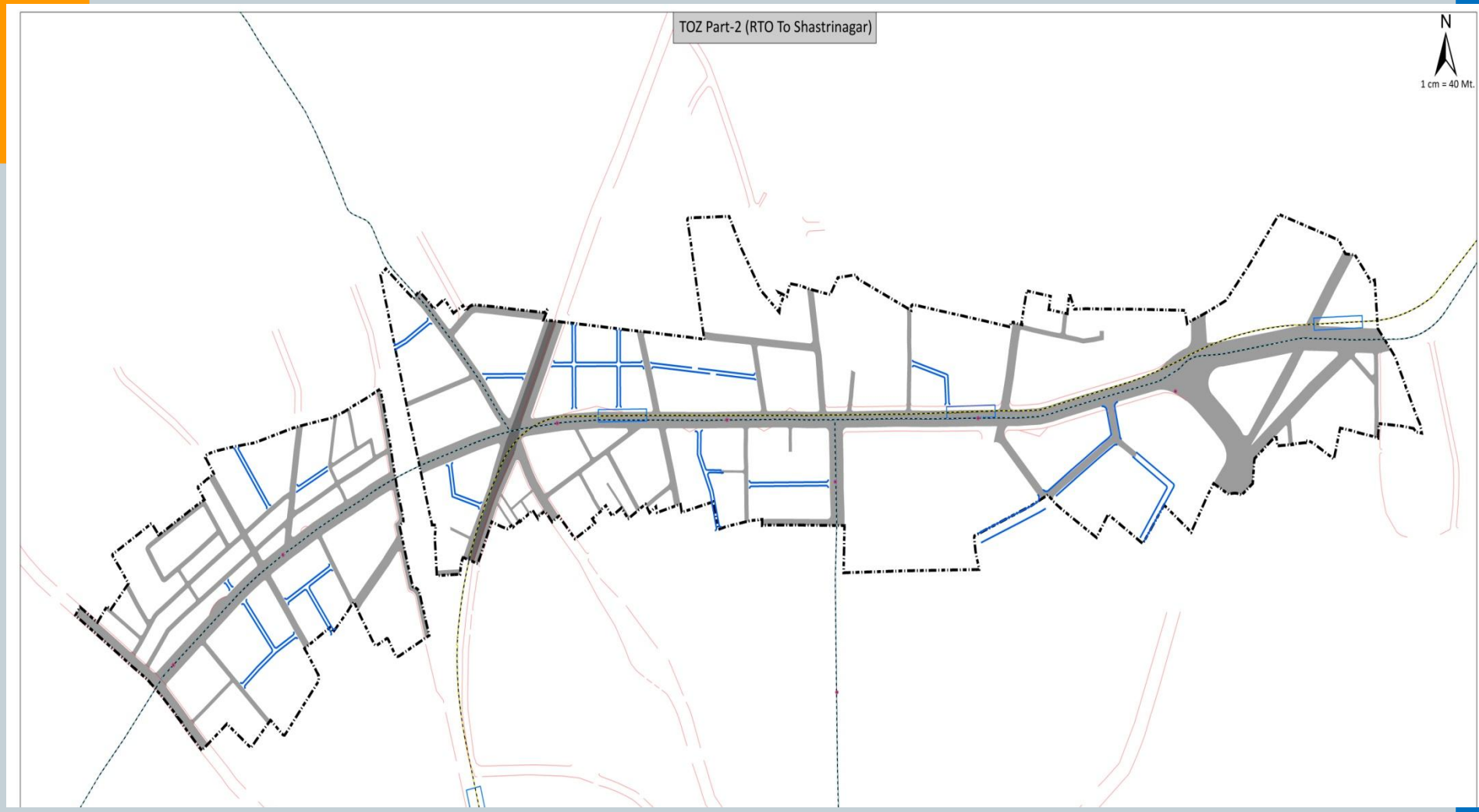


TOTAL ROUTE 11.77KM
TOTAL AREA 4.32 SQKM

Existing notified road



New Proposed Road- ROW 1



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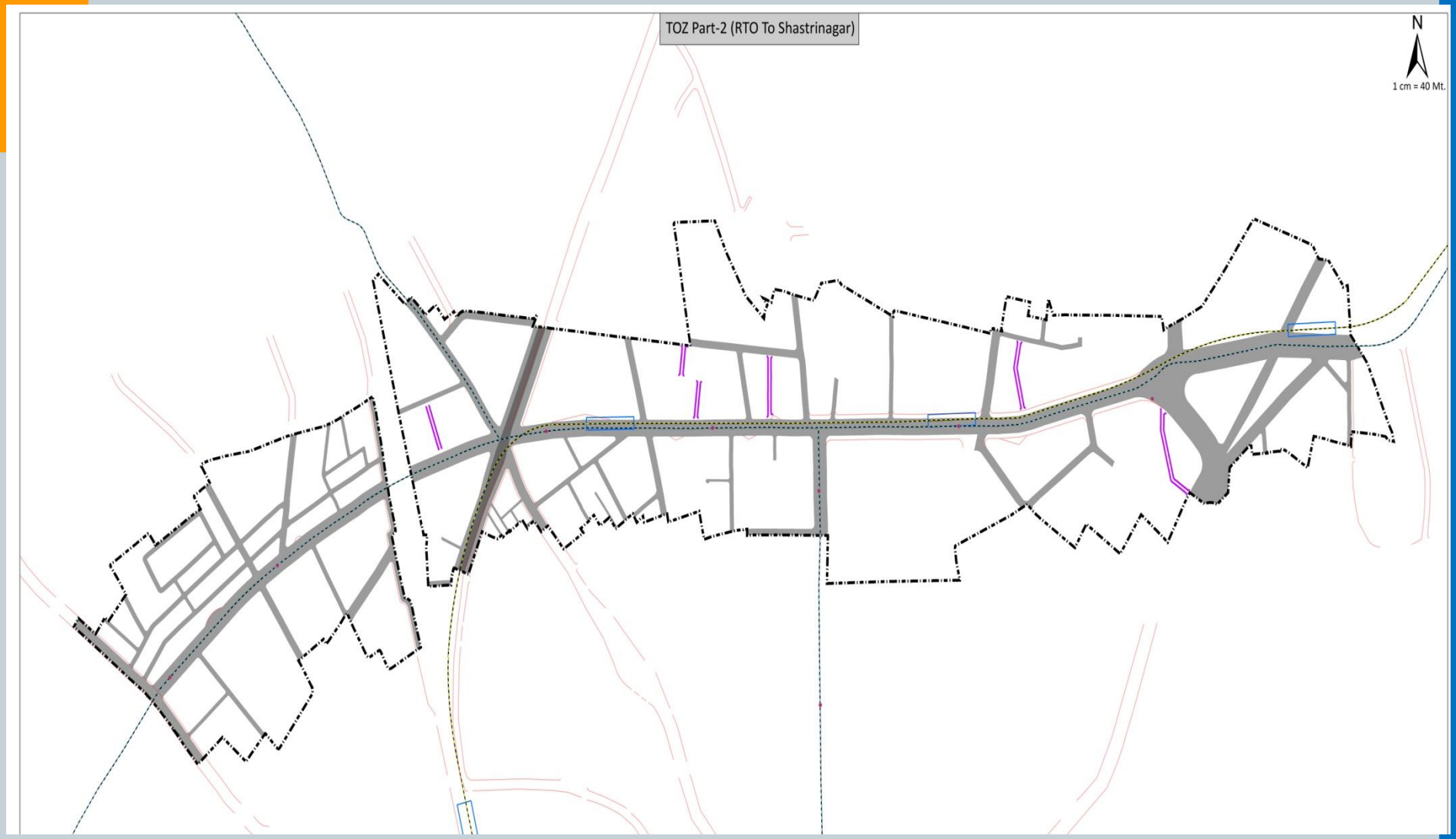
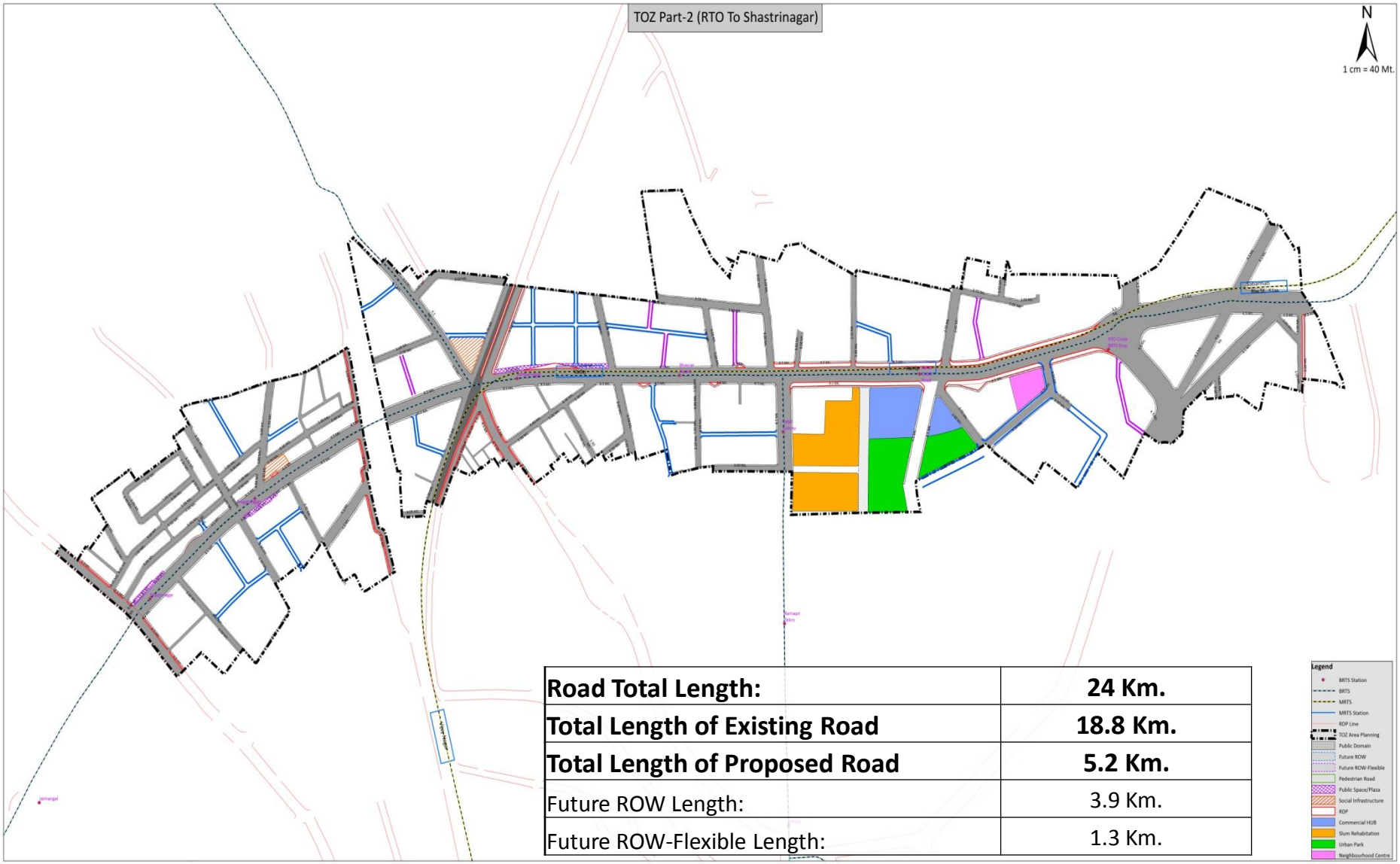
New road - Flexible



Proposed Network



Road Total Length:	**24 Km.**
Total Length of Existing Road	**18.8 Km.**
Total Length of Proposed Road	**5.2 Km.**
Future ROW Length:	3.9 Km.
Future ROW-Flexible Length:	1.3 Km.

Street Hierarchy

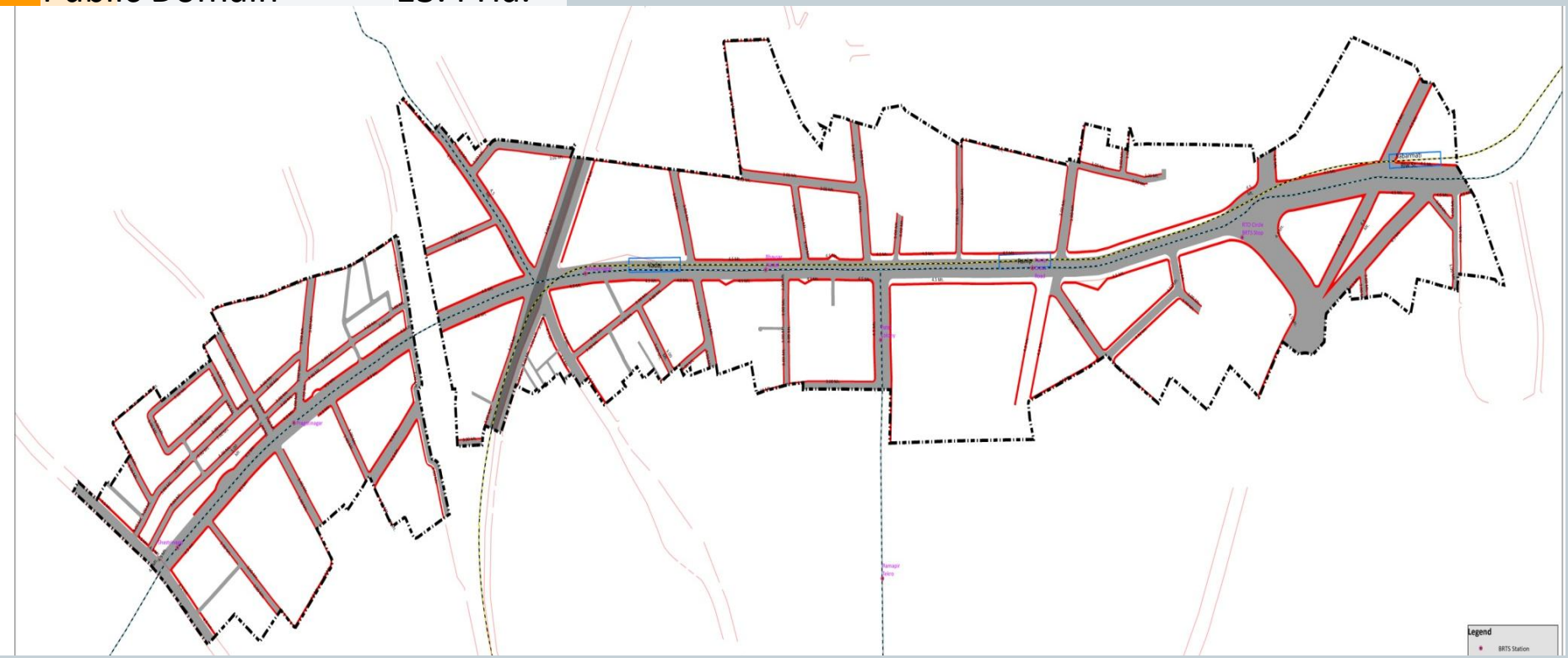
No. of Block (Existing): 62

No. of Block (Proposed): 89

Expanding the public realm

Public domain

Public Domain	13.4 Ha.



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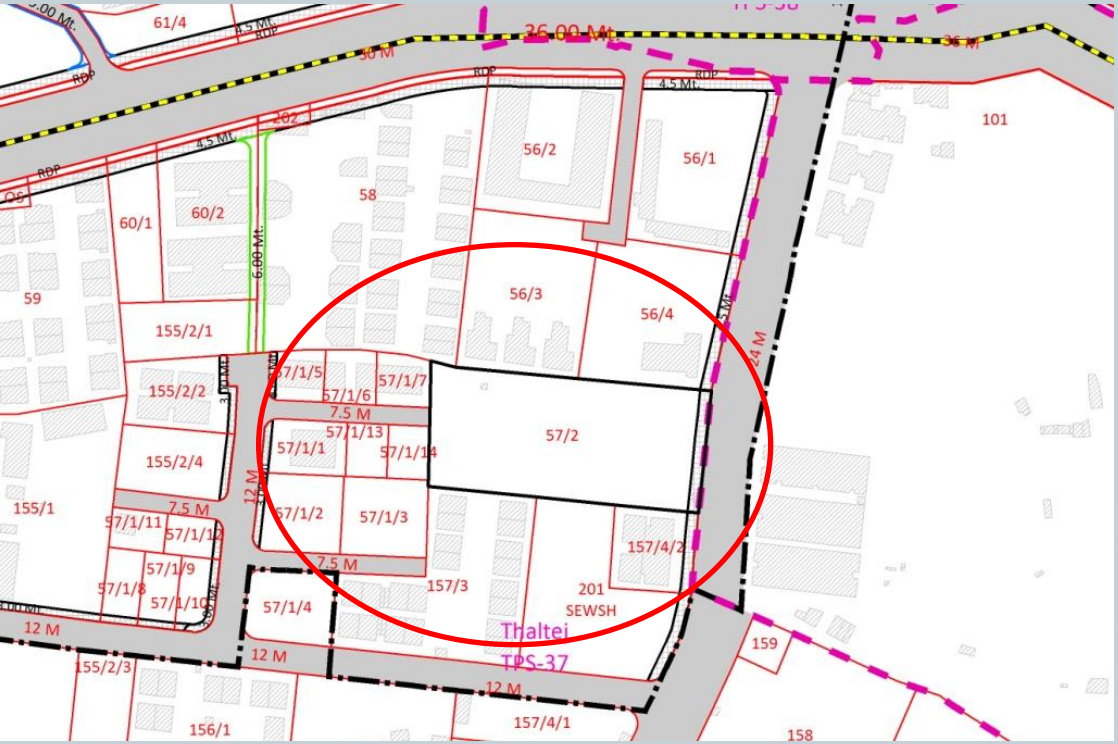
Public domain

Public Domain	
Road width between 12 to 18 mt	3.0 mt
Road width > 18 mt	4.5 mt



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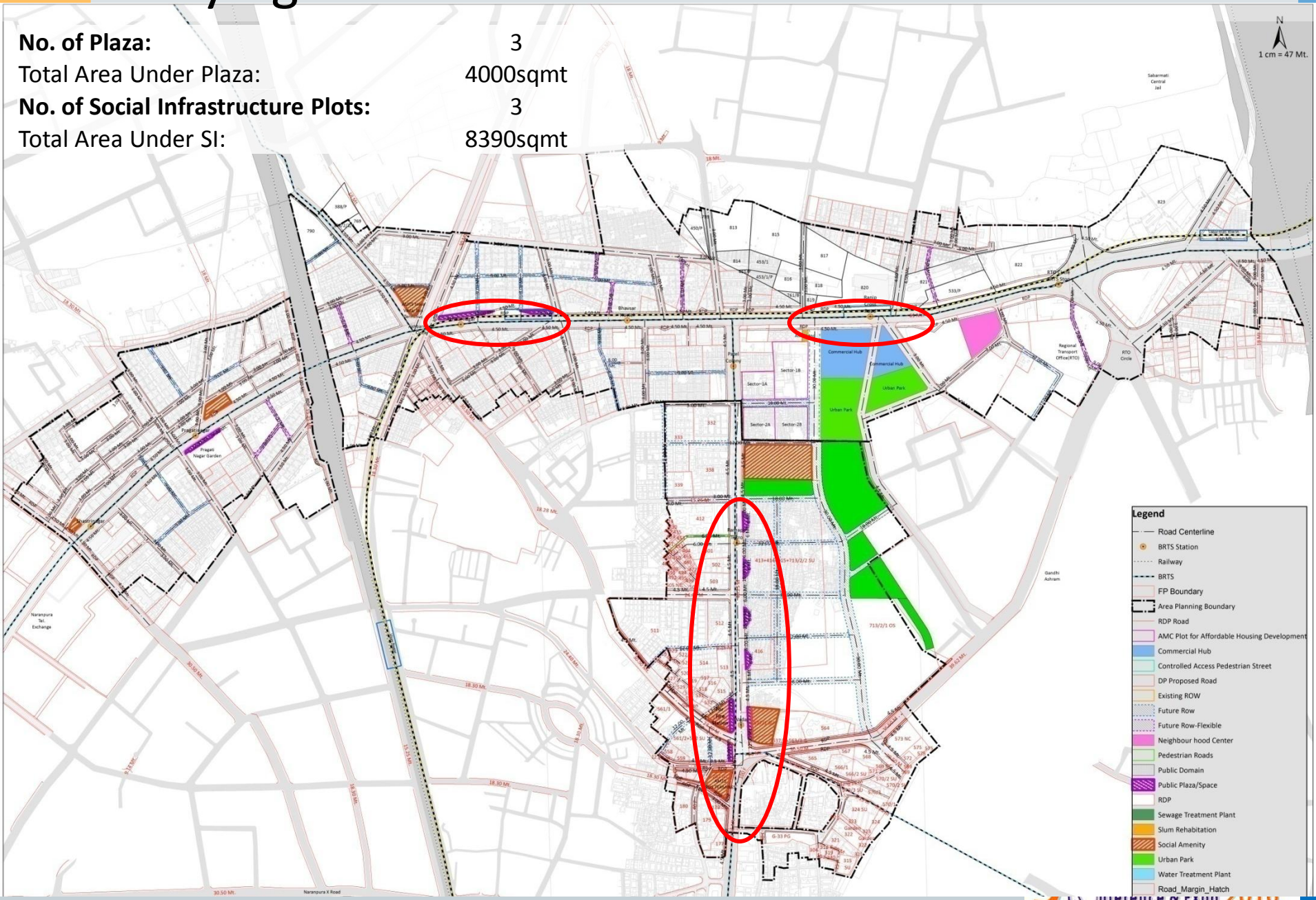
Identifying Public Plaza & Social Infrastructure Plots

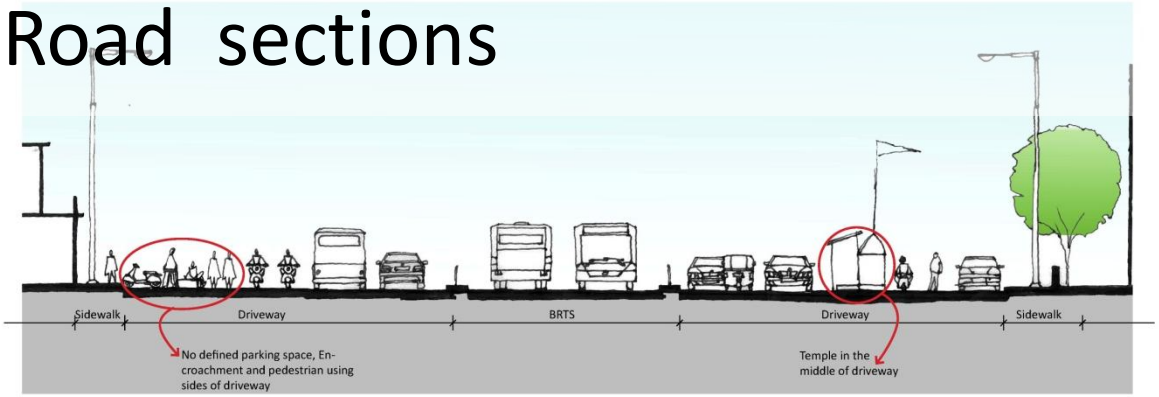
No. of Plaza:	3
Total Area Under Plaza:	4000sqmt
No. of Social Infrastructure Plots:	3
Total Area Under SI:	8390sqmt



Existing sections

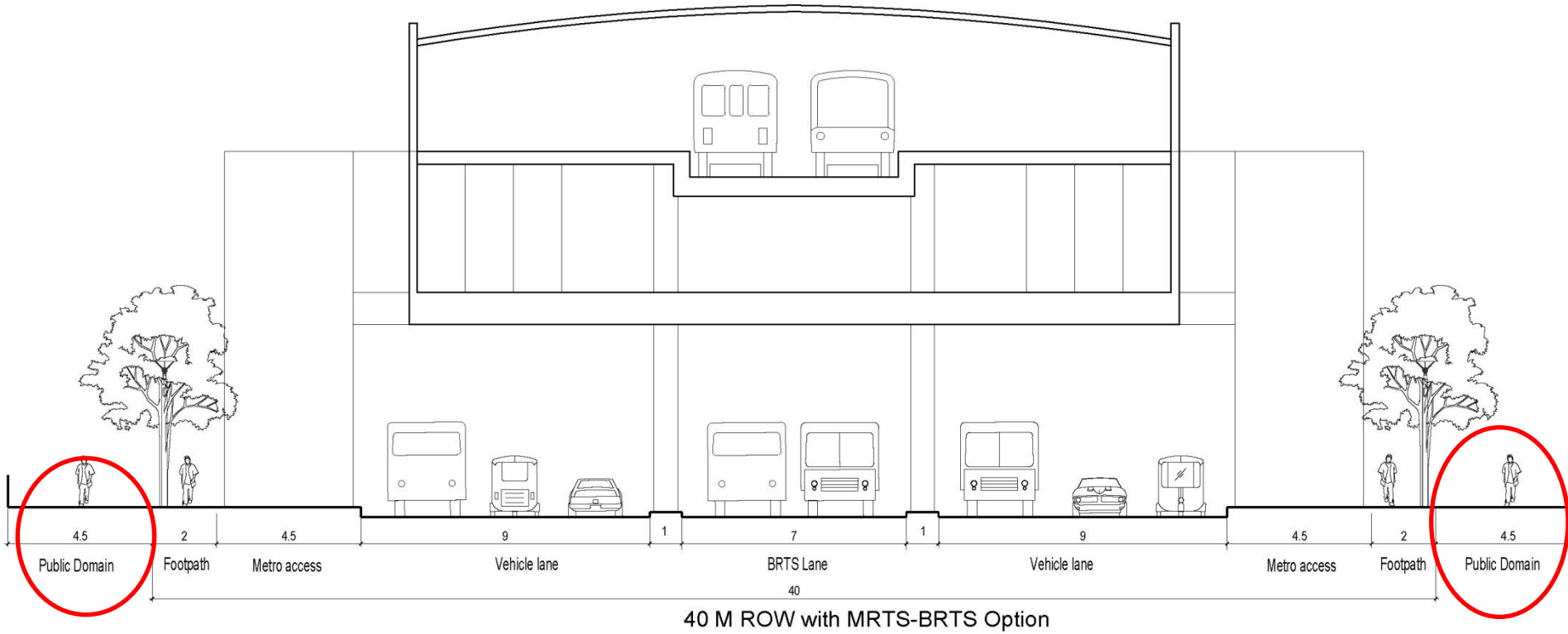
Existing condition along Patel colony to Vadaj circle

Road sections



STREET SECTION AT LATE RAJENDRA MISTRI MARG

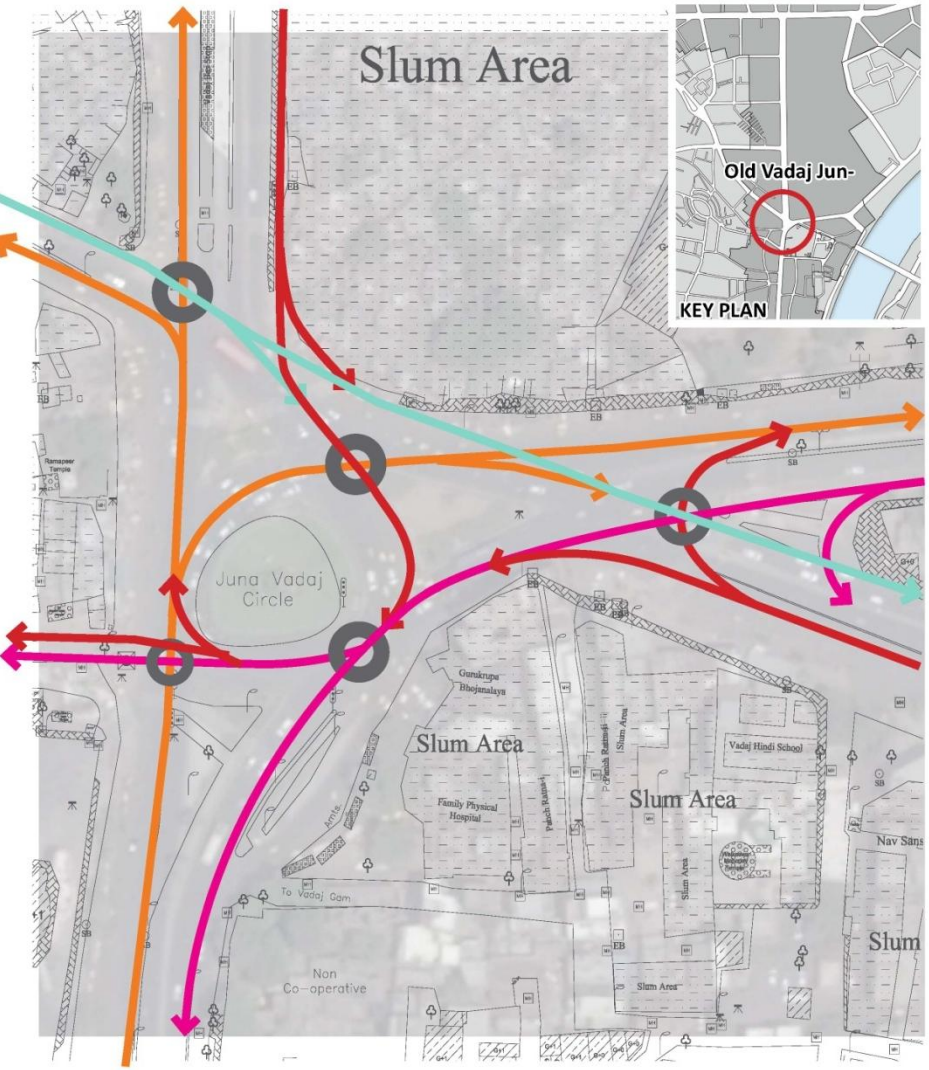
Proposed sections



40 M ROW with MRTS-BRTS Option

ROW 40m (MRTS-BRTS)

Existing Junction

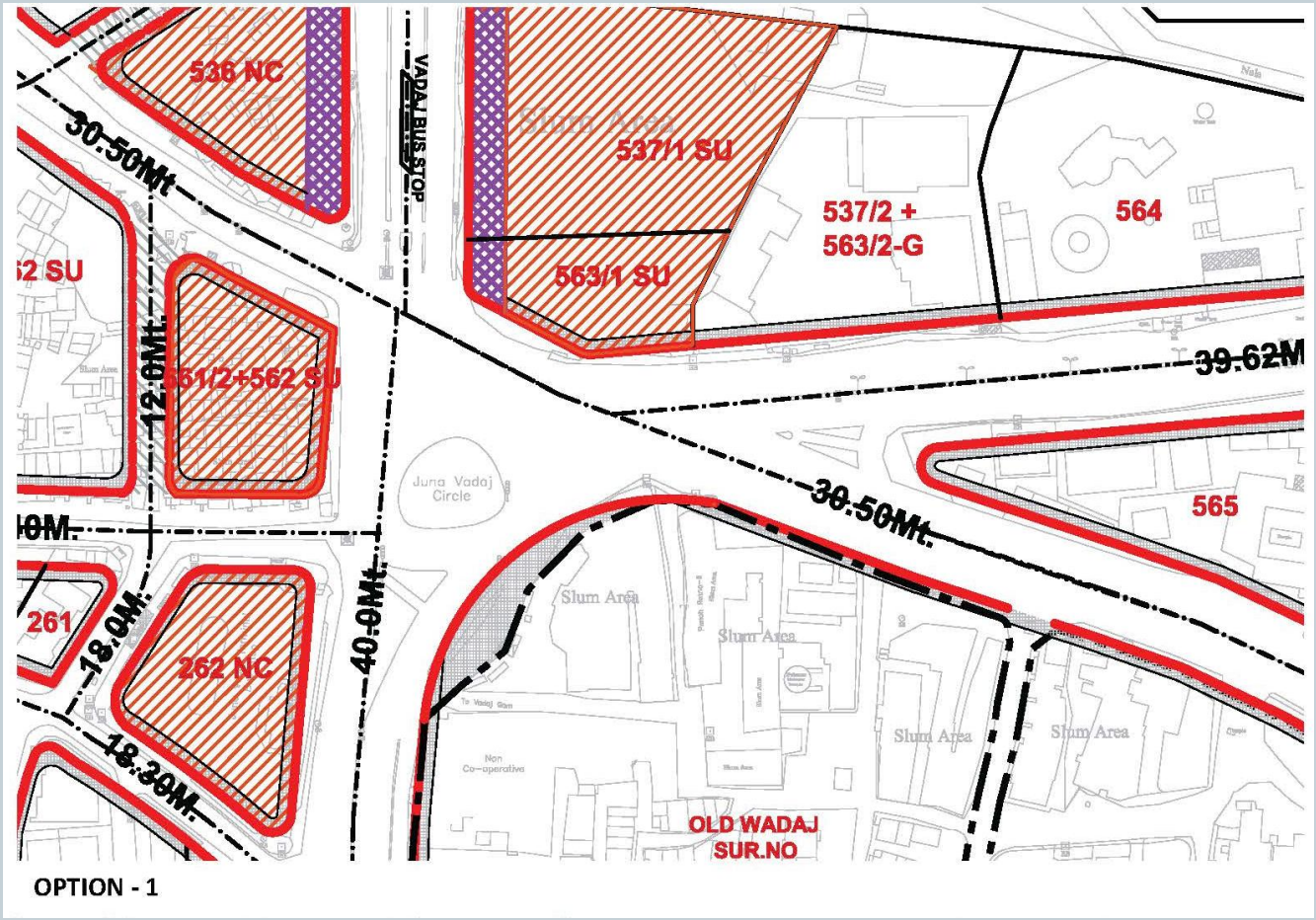


Traffic movement analysis

Aerial view of the junction showing conflict points

Aerial view of the junction showing conflict points

Junction Design



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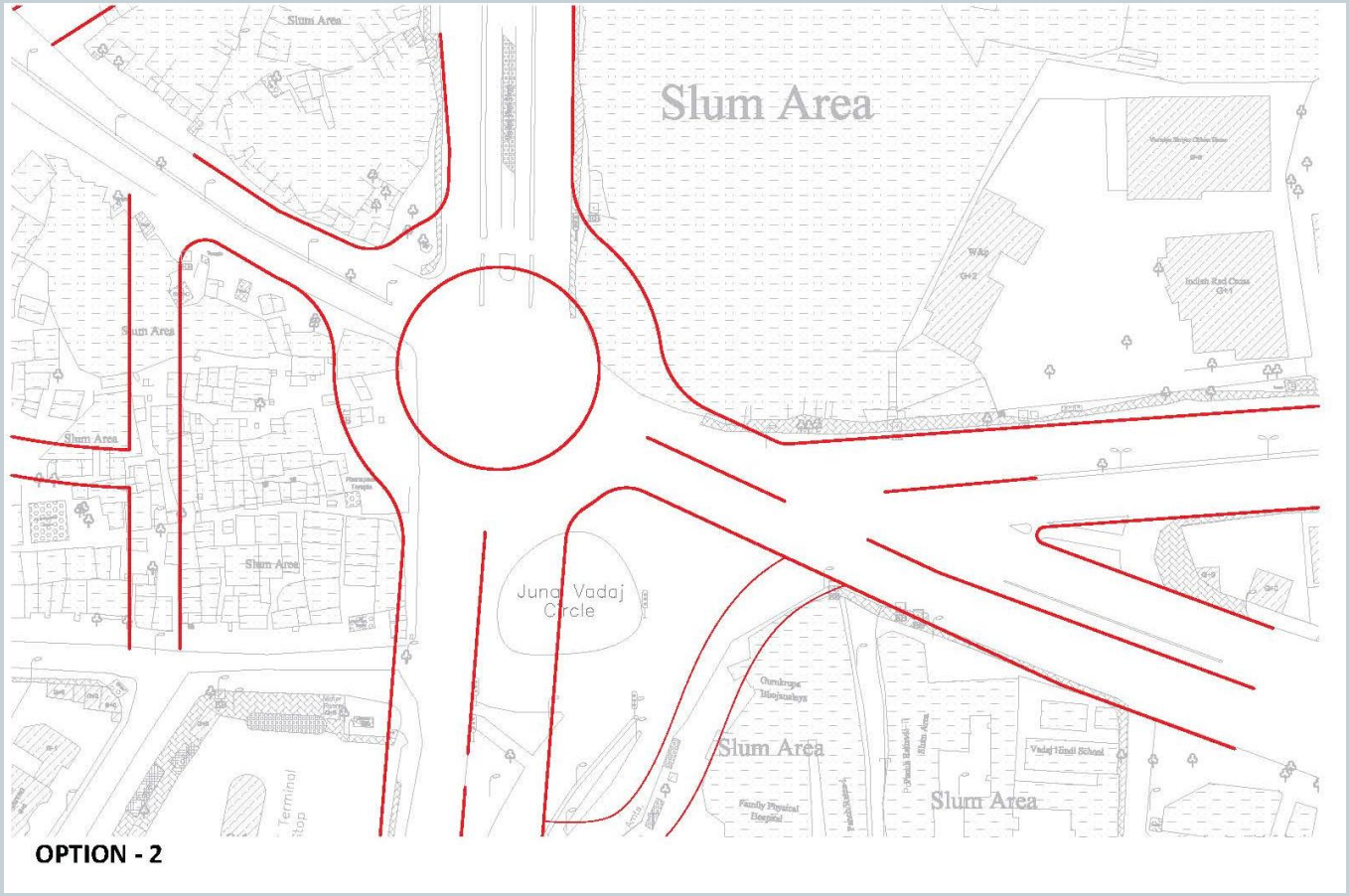
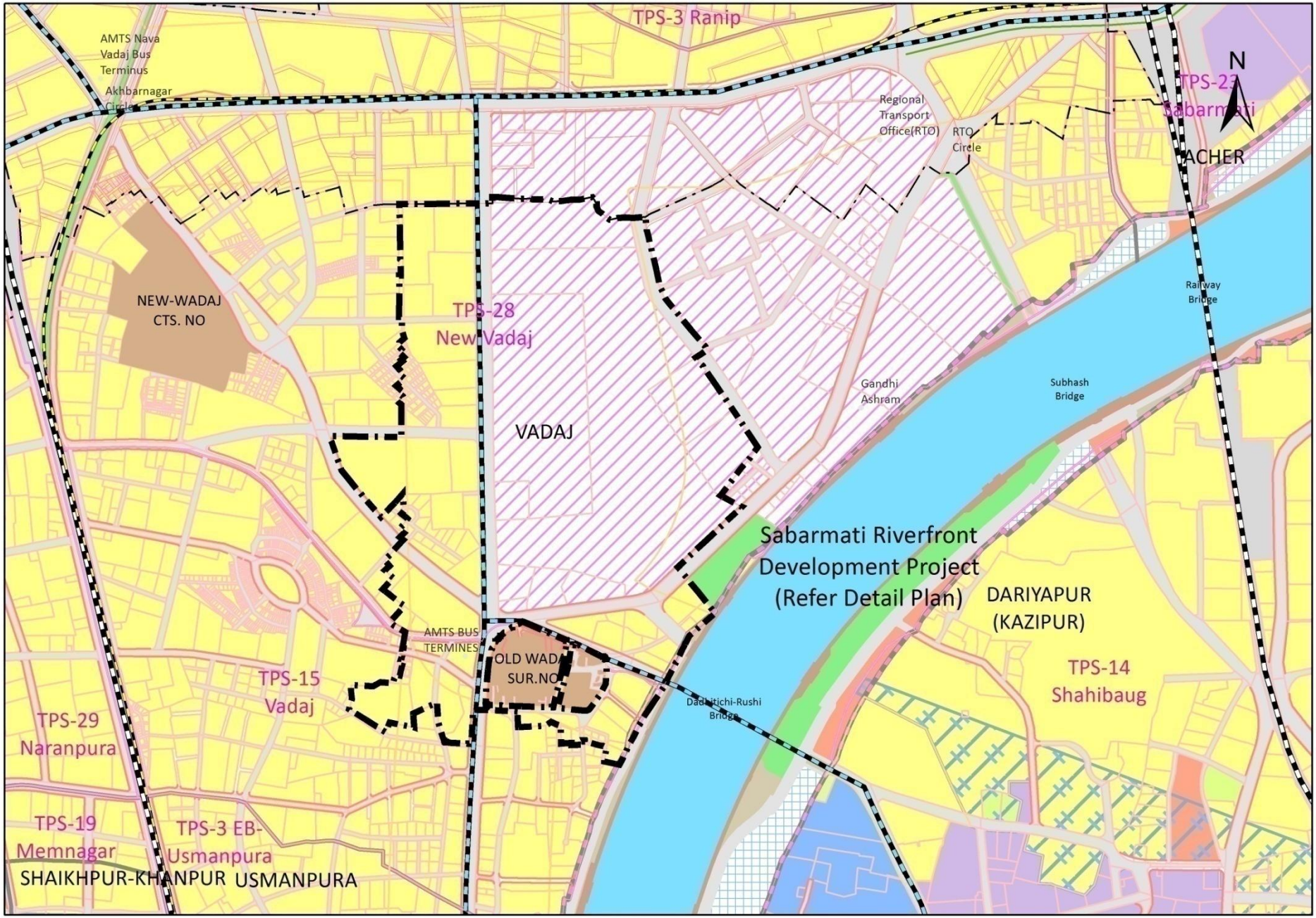
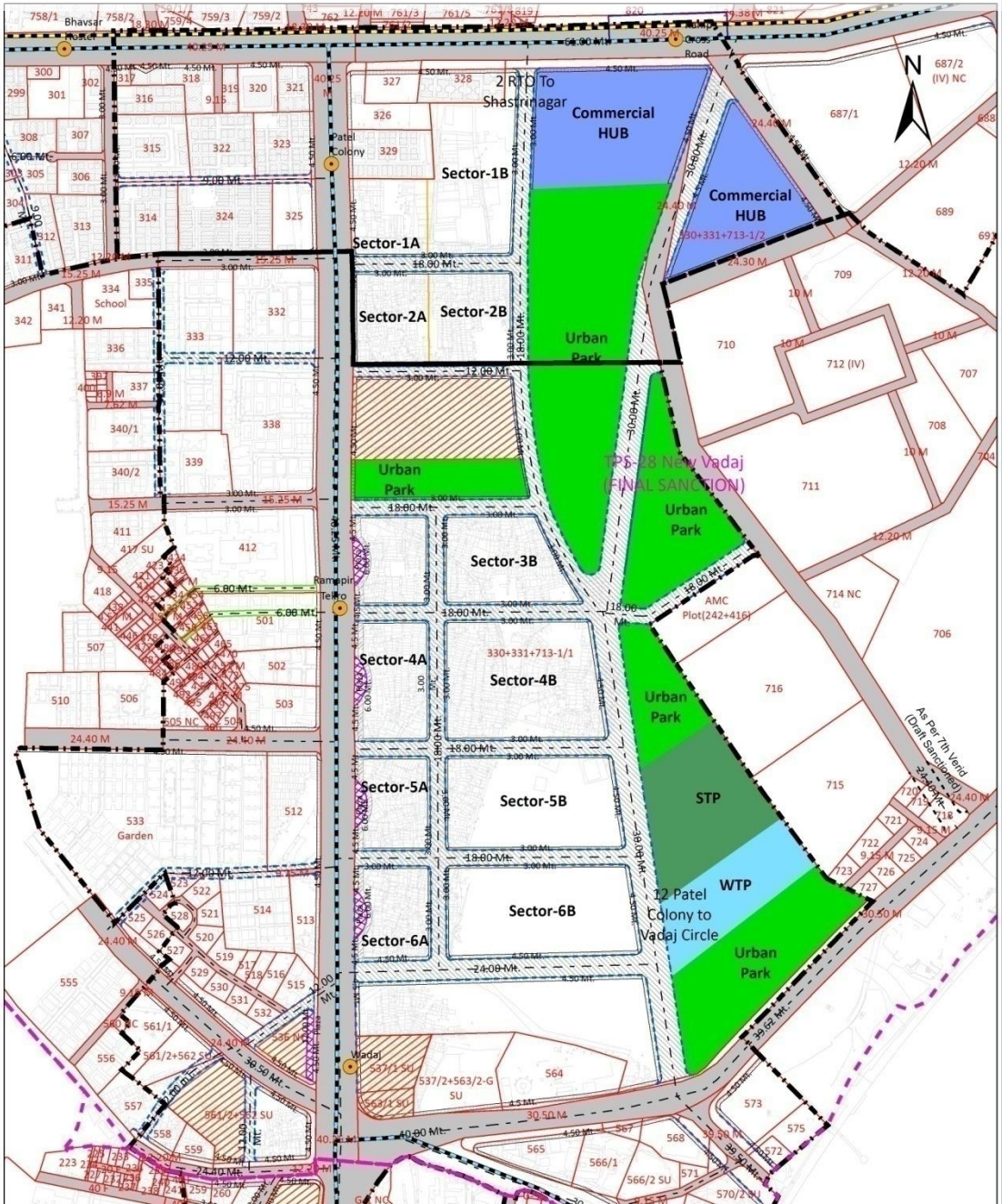
Alternative 2 -Junction Design


Slum Area
Slum Area
Slum Area

Proposal for Special area development - Wadaj



Proposal for Special area development - Wadaj



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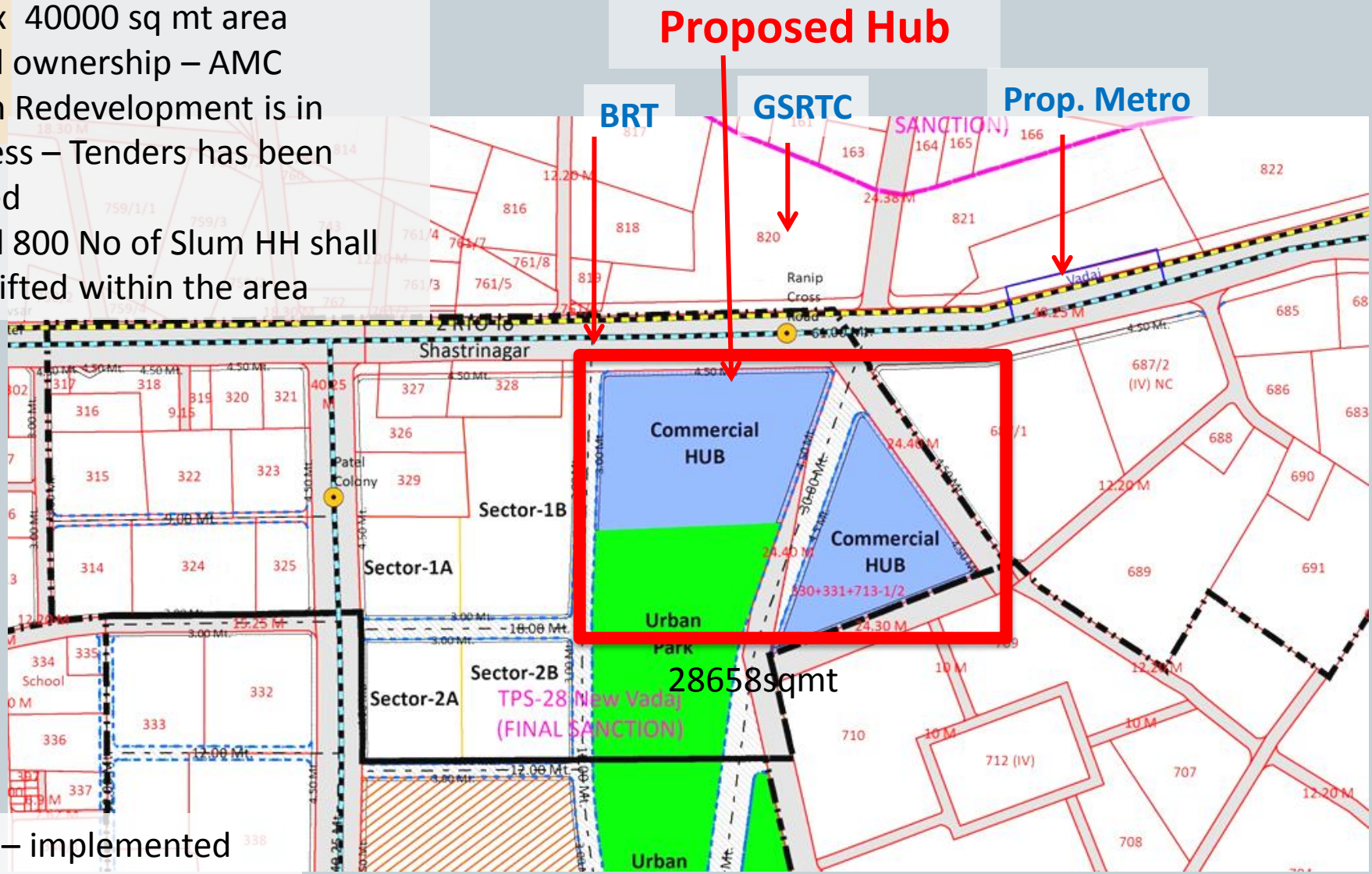
Well Integrated Multimodal Hub

- Appx 40000 sq mt area
- Land ownership – AMC
- Slum Redevelopment is in process – Tenders has been invited
- Total 800 No of Slum HH shall be shifted within the area



BRTS – implemented
Metro – Under progress
GSRTC- Station existing
AMTS –route existing

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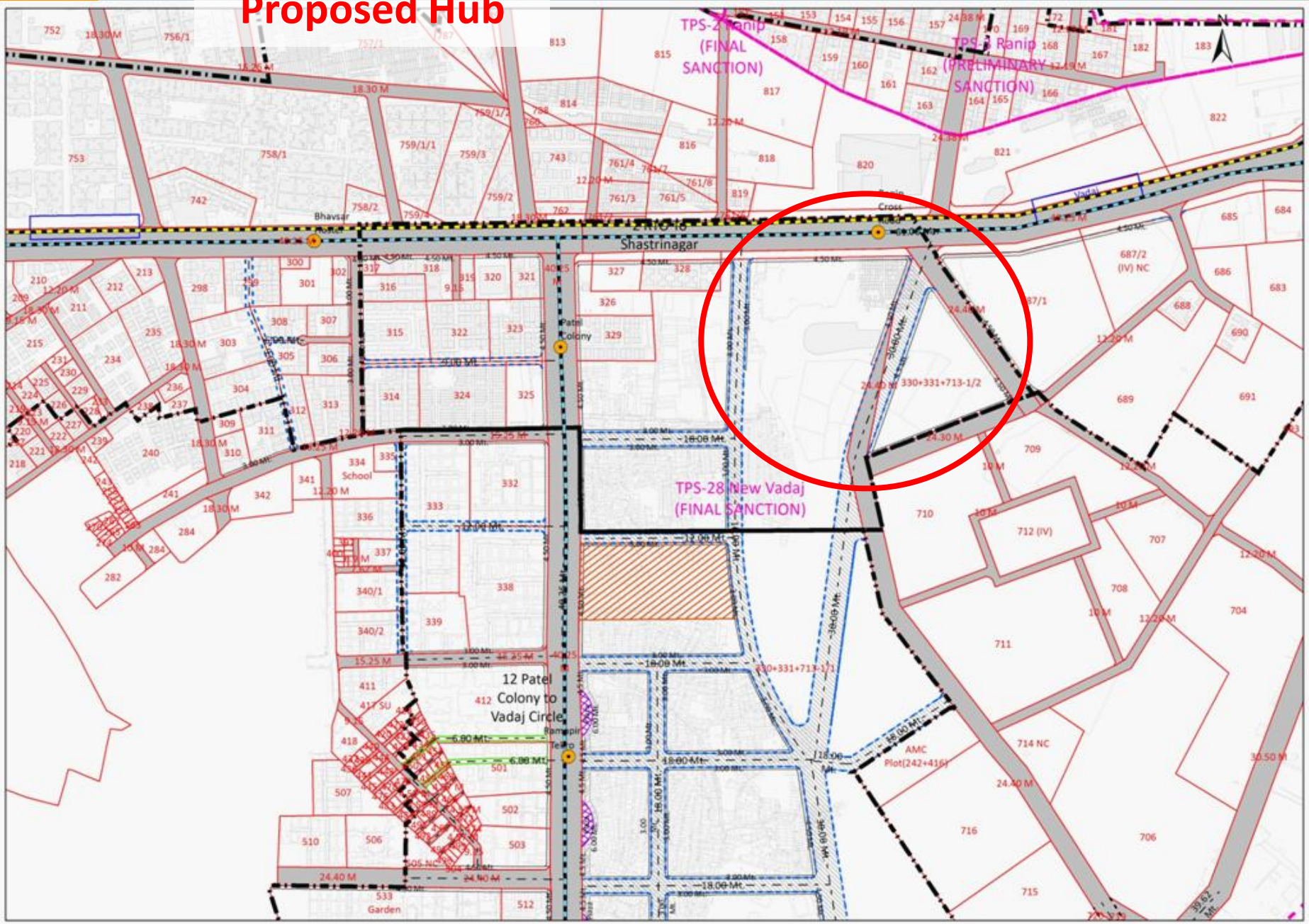
Proposed Hub



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Estimated Cost – TOZ Part 2

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	Component	Estimated Cost (Rs. in cr)
1	**Transportation**	
	Construction of Roads	76.59
	Street Light	2
	Parking Management System	10
	intelligent Traffic Management	6
	IT Based Junction Design	2
	station area development	5
	feeder bus connectivity	10
	Intermodal hub	125
	wifi hotspots	1
	surveillance cameras	1
	Total Transportation Cost	**238**
2	**Physical infrastructure**	
	Water Supply	29
	Sewerage	17
	Storm water	14
	Solid Waste Management	0
	and Acquisition (Rs in lakh)	15
3	**Garden and Lake development**	
	Garden and Lake development	3
4	**Project cost**	
	Preparation of detailed plans and studies	3
	Total Cost of PROJECTS	245
	ADD : 5 % PHYSICAL CONTIGENCIES + WORK CHARGE	12
	ADD:150% PRICE ESCALATION FOR 10 YEARS	368
	ADD : 10% ADM CHARGES	25
	ADD : 20% FOR DEVELOPMENT OF SUROUNDING AREA	49
	Total Cost of TOZ (in Cr)	**699**

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Owners meeting has been conducted

Suggestion and Objections has been discussed and decision has been taken

Part-2
RTO Circle to Shastrinagar

Success depend upon three fold careful implementation

1. Proper planning
2. Proper Execution while giving permission
3. Taking possession and initiation of development

Appx. 121 permission has been given in TOZ area (FSI between 3.0 to 4.0) and 3 in CBD area

Any structure like ramp/security cabin shall not be permitted in Public Domain area

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Public domain
Margin area

As per TOZ/CBD GDCR

Thank You

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