

Land based financing mechanisms adopted for large scale urban projects (Case of Sabarmati River front Development and Bus Rapid Transit System)

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and
SRFDCL**

***Source of graphical slides HCPDPM** 

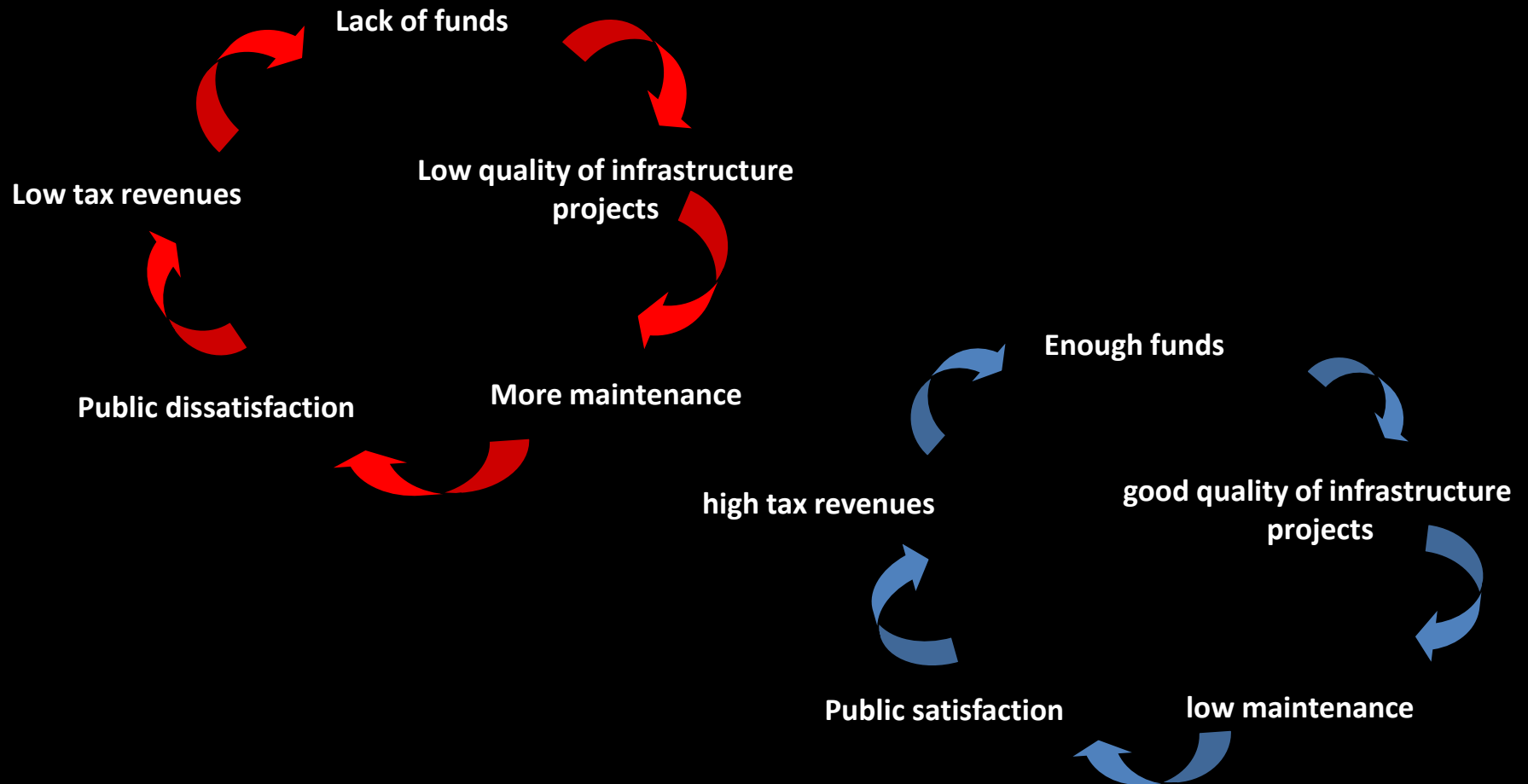
Major Issues of Large scale Urban Projects in India:

- High pressure on urban local body (ULB) for providing Basic Services
- Under Direct/ Indirect control of State Government on ULB
- Lack of technical resources
- Lack of financial resources
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Resources for financing of Large scale Urban Projects in India:

- Aid from central or state government
- Grants from state government
- Lone from state government
- Lone from local financial institutes e.g. HUDCO etc.
- Loan from international financial institutes
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-
- Land as resource

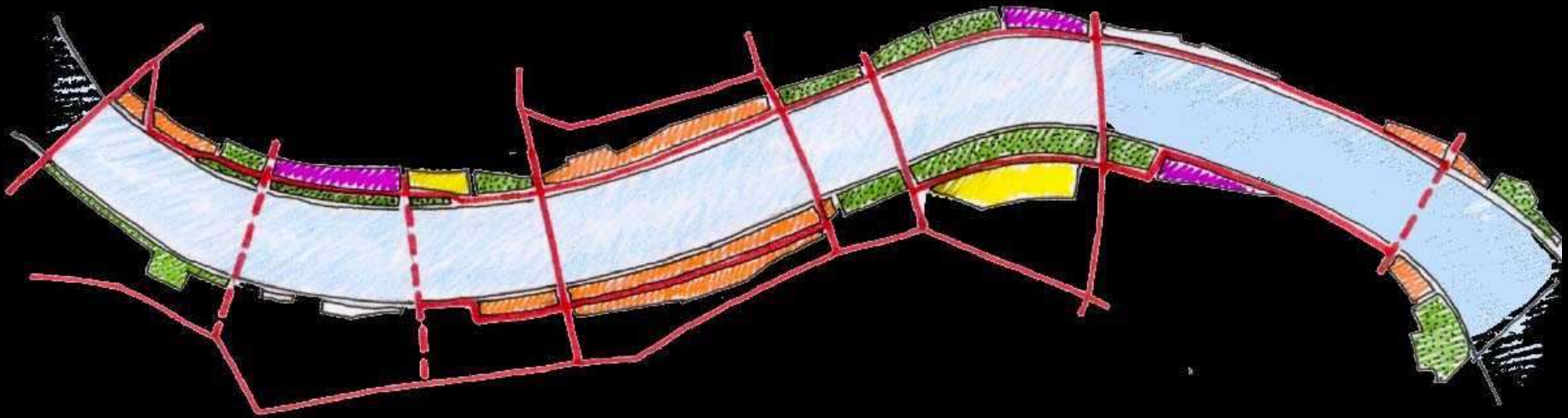
Breaking the Trap



Land as Resource for financing of
Large scale Urban Projects:

Case of Sabarmati River Front Development Project

Case of Sabarmati River Front Development Project



Sabarmati River Passing from middle of the city

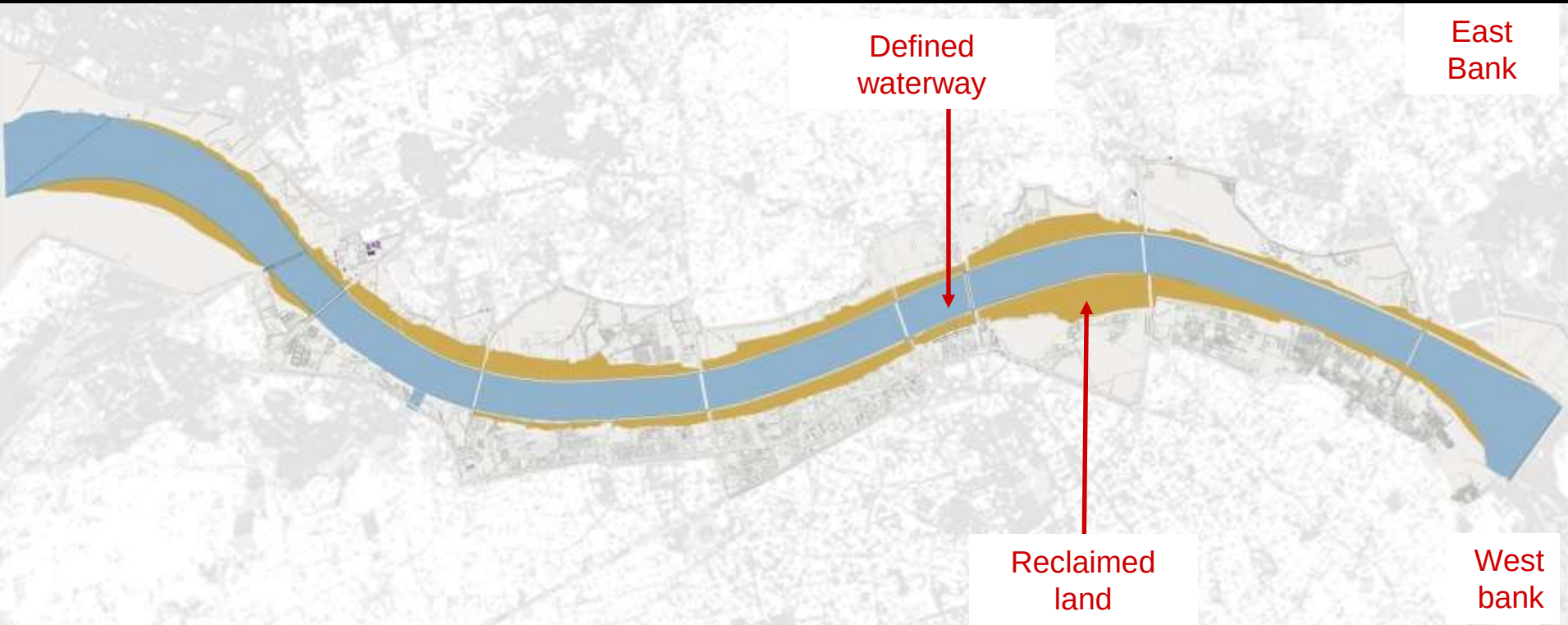


Reclaimed Sabarmati River land

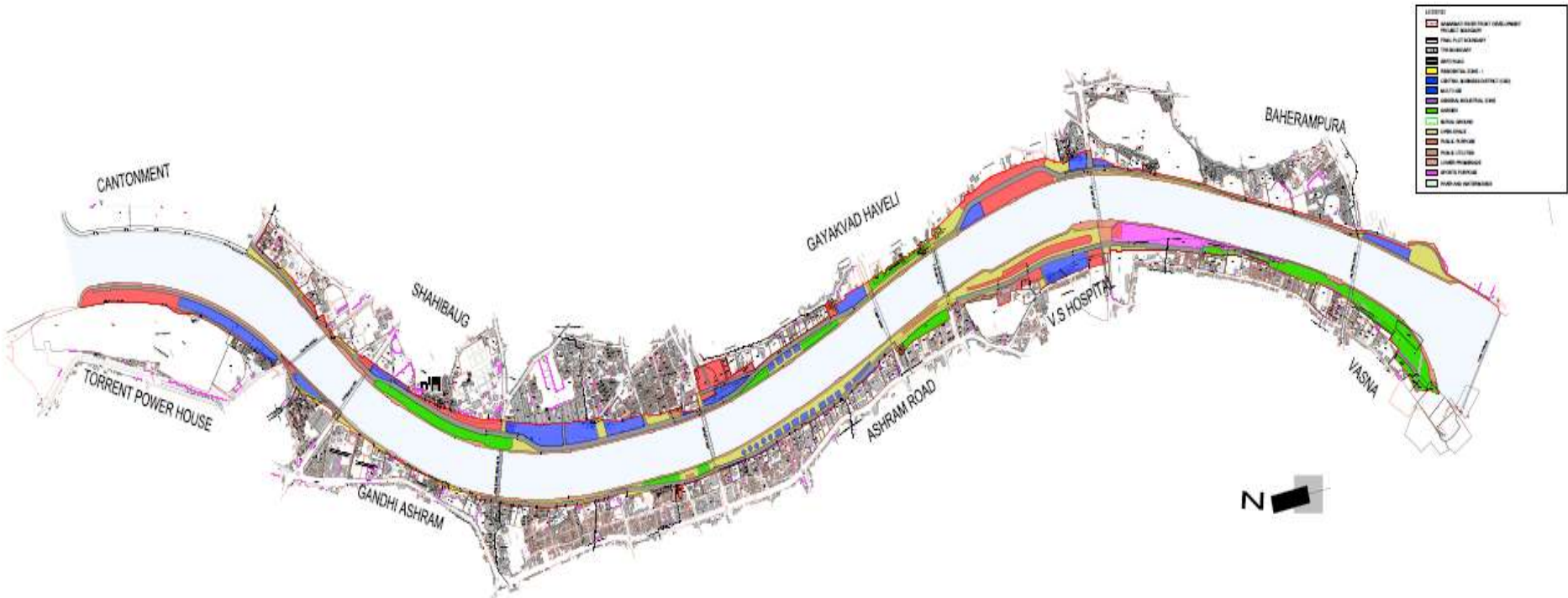


River Training and Land Reclamation

- Defined Waterway – 275 m wide
- Total Project area – 204 Ha. out of which 162 Ha. Reclamation area

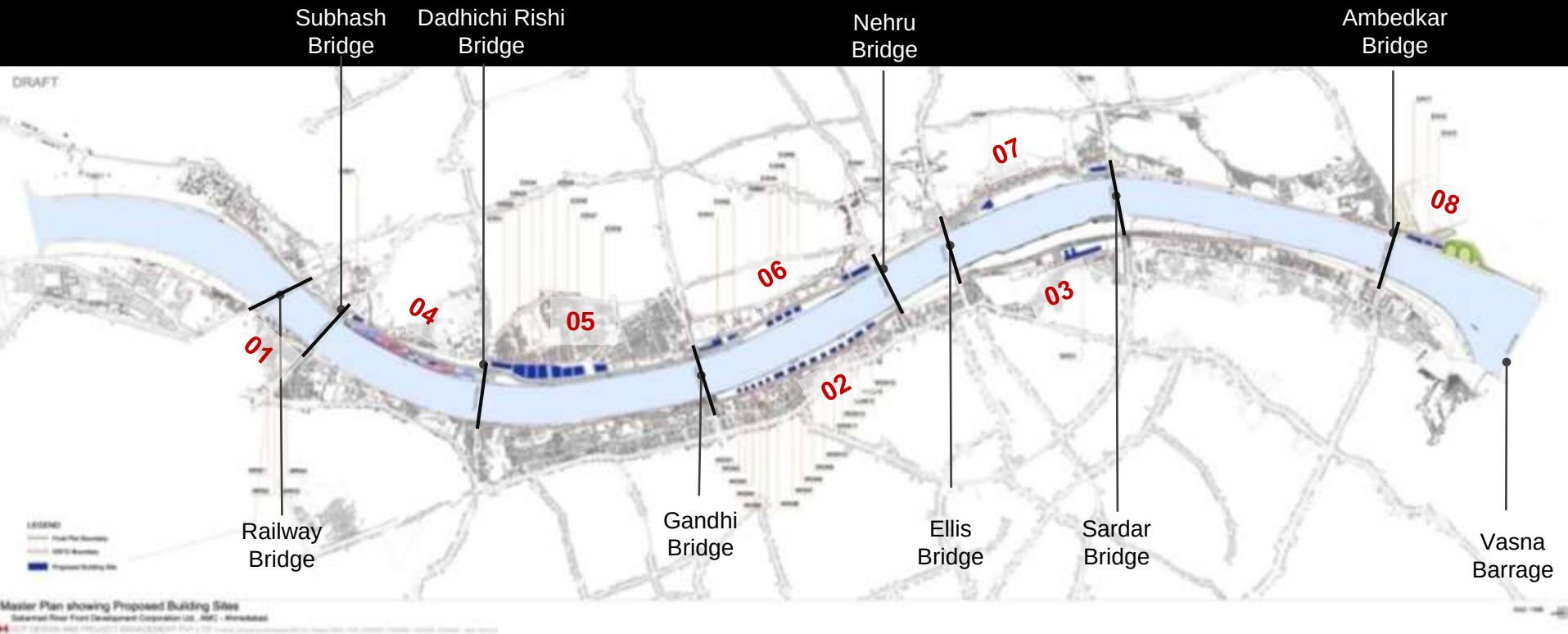


SRFD Project Development Plan



Area statement of land use for the land, included in SRFD Project (As per development plan – 2021)

Sr.	Description	(Ha.)	%
1	Roads	40.36	19.69
2	Residential Zone -I (Residual)	0.8	0.39
3	Central Business Dist.-CBD (Residual)	5.67	2.77
4	Multi Use (land for sale)	29.71	14.5
5	General Industrial Zone (Residual)	0.09	0.04
6	Garden	27.46	13.4
7	Open Space	37.66	18.38
8	Public Purpose	28.18	13.75
9	Public Utilities	0.84	0.41
10	Lower Promenade	27.39	13.37
11	Sports Purpose	6.74	3.29
12	Burial Ground (Residual)	0.01	0.01
Total		204.91	100



Guiding principles for design of building volumes within the SRFD Project area

- Ensuring consistency with present use and future potential of adjacent areas
- Ensuring a harmonious and memorable skyline
- Ensuring that the development does not 'wall off' building in adjacent areas
- Ensuring that the entire river edge remains public
- Ensuring generation of sufficient revenues to pay for the project

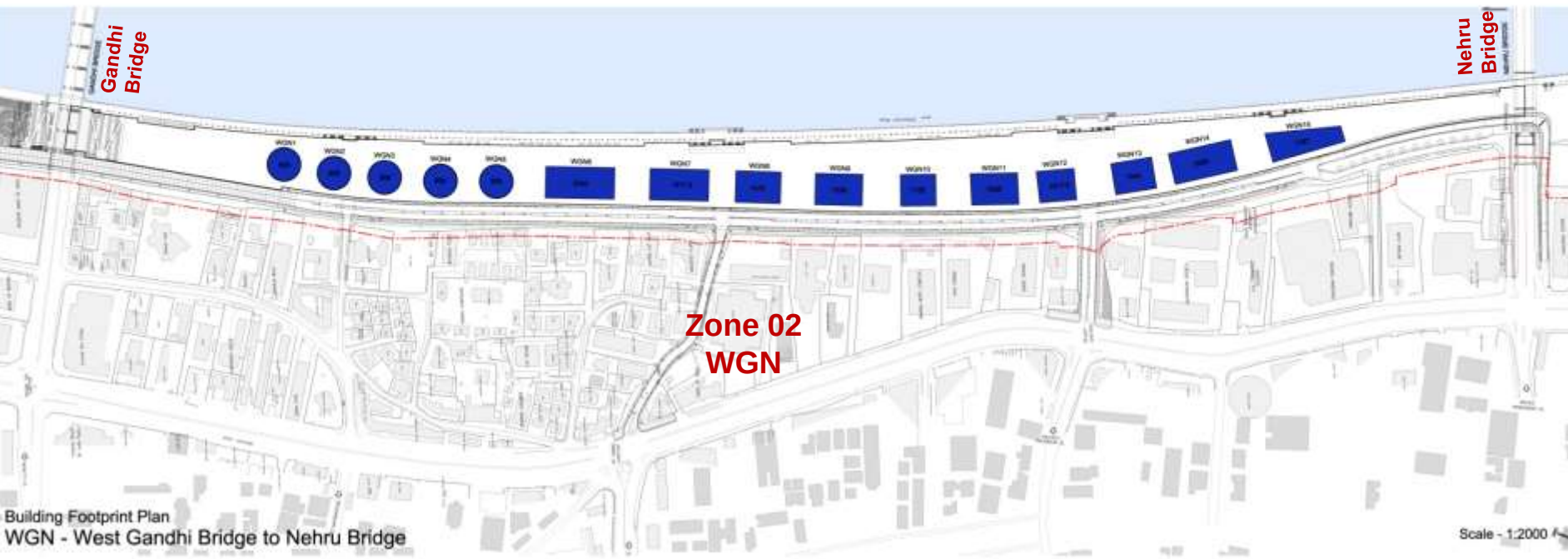
Proposed Built-up Area for Sale

S.No.	Stretches	Land Use Parcel Code	Land Parcel Area (sq.m)	No. of Buildings	Total Permissible Floor Area (sq.m)
	West				
1	Railway Bridge to Subhash Bridge	WRS	9775.01	4	16309.19
2	Gandhi Bridge to Nehru Bridge	WGN	20806.84	15	134245.52
3	Ellis Bridge to Sardar Bridge	WES	34966.41	1	136552.50
	Total for West		65548.26	20	287107.20
	East				
4	Subhash to Dadhichi Bridge	ESD	10019.67	1	16942.20
5	Dadhichi to Gandhi Bridge	EDG	90390.43	8	295016.83
6	Gandhi to Nehru Bridge	EGN	40594.31	8	160960.25
7	Ellis Bridge to Sardar Bridge	EES	23950.57	2	133954.05
8	Ambedkar Bridge to Vasna Barrage	EAV	16561.78	3	58287.90
	Total for East		181516.76	22	665161.23
	Total for East and West Stretches		247065.02	42	952268.43

West Gandhi Bridge to Nehru Bridge (WGN 01-15)

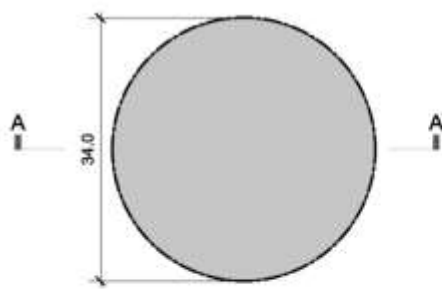


Building Elevation and Section



West Gandhi Bridge to Nehru Bridge (WGN 04)

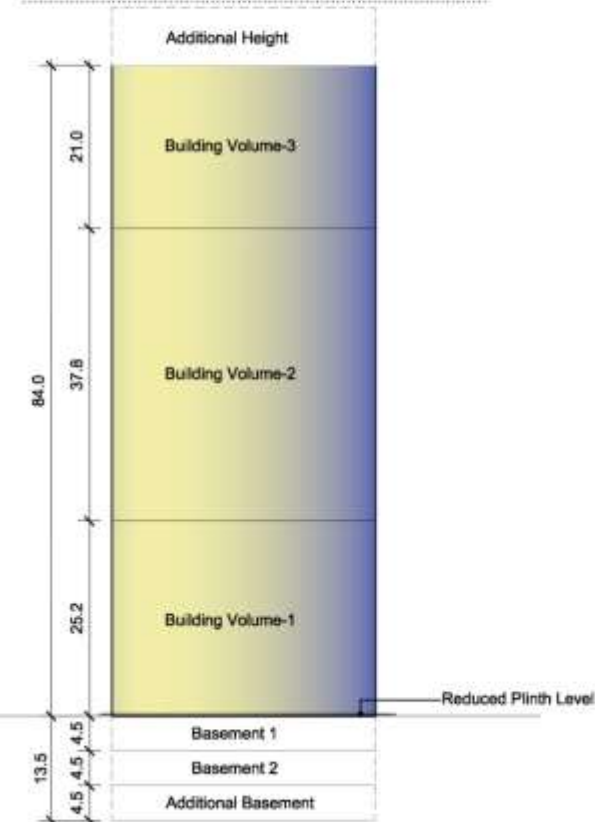
SRFD Building WGN 04



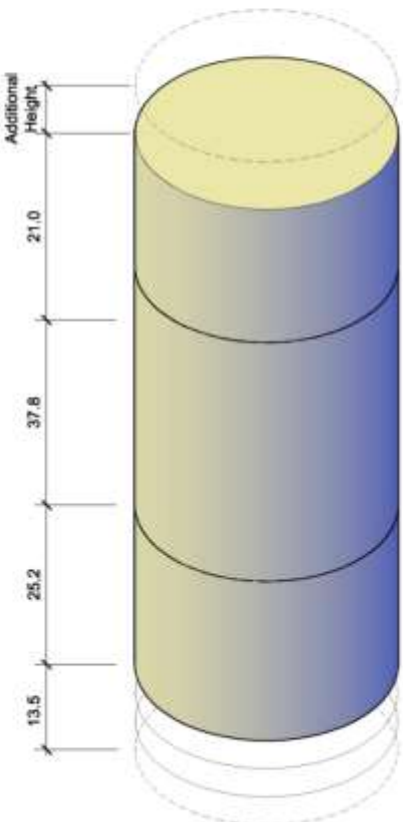
Building Footprint

- Legends :
- Building Edge
 - Build To Line (BTL)
 - Building Area

Maximum Permissible Height sanctioned by Airport Authority



Section AA



Building Envelope Isometric View

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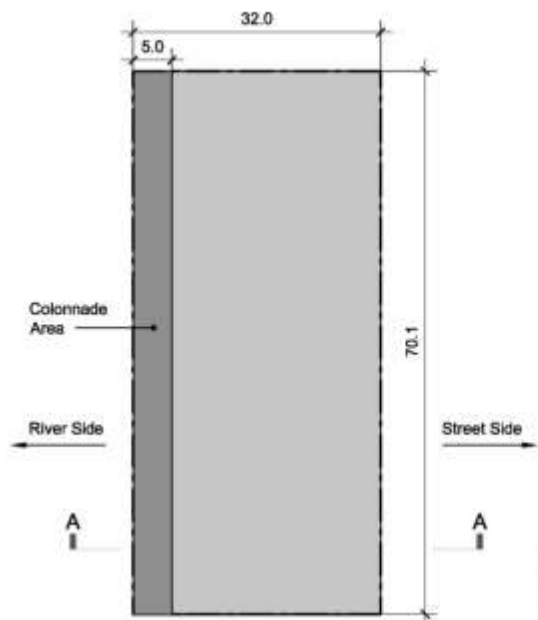
Volumetric Guidelines and Regulations

Building Placement	
1 Building Footprint Area	900sq. mts.
2 Reduced Plinth Level	40.3 mts.
3 Build-To-Line (BTL)	
3a Building edge at BTL (up to 4.2m height)	100%
3b River Side: Building edge at BTL (Above 4.2m height)	Mn. 75 %
3c Street Side: Building edge at BTL (Above 4.2m height)	Mn. 75 %
3d No projections are permitted outside the BTL edges on all	Compulsory
4 Colonnade	N/A
4a River Side building edge coverage	100%
4b Depth	5 mts.
4c Height	4.2 mts.
Built Form – Typologies	
5 Open Space at Ground Level	
5a Minimum Area (25% of Building Footprint Area)	N/A
6 Building Volume 1	
6a Colonnade Area (public right of way)	N/A
6b Maximum Ground Floor Area	900 sq. mts.
6c Typical Floor Area	900 sq. mts.
6d Maximum Built Up Area	4031 sq. mts.
7 Building Volume 2	
7a Typical Floor Area	900 sq. mts.
7b Maximum Mechanical Floor Area	900 sq. mts.
7c Maximum Built Up Area	6946 sq. mts.
8 Building Volume 3	
8a Typical Floor Area	900 sq. mts.
8b Maximum Mechanical Floor Area	N/A
8c Maximum Built Up Area	3859 sq. mts.
9 Basement	
9a Typical Basement Area	900 sq. mts.
9b Maximum Permissible Area (3 Basement Floors)	2724 sq. mts.
10 Total Permissible Built Up Area (6d+7c+9c)	15436 sq. mts.
Built Form – Heights	
11 Maximum Permissible Height for Building Volume 1	25.2 mts.
12 Maximum Permissible Height for Building Volume 2	37.8 mts.
13 Maximum Permissible Height for Building Volume 3	21 mts.
14 Maximum Permissible Height (11+12+13)	84 mts.
15 Additional Permissible Height for parapets, stair cabins, elevator shafts, overhead water tanks & roof level mechanical areas, subject to NOC from Airport Authority	7.5 mts.
15a All mechanical equipment and services should be screened to avoid visibility	Compulsory
Basements & Parking	
16 Basement	
16a Maximum Floor to Floor Height for each Basement	4.5 mts.
16b Maximum number of Basement floors	3
16c Minimum number of Basement floors	2
16d Permissible uses for Basements: electric sub station, under ground water tanks, fire fighting water tanks, generators, HVAC requirements and bank safety vaults are permitted. No portion of the basement will be used for human habitation any other incident	Compulsory
17 Parking	
17a All Parking in basements only. No part of Ground Floor or any other floors shall be used for parking	Compulsory
17b Basement ramps are permitted only within the permissible building footprint	Compulsory
17c Minimum Length for Basement ramp landing area on Ground Level	4.5 mts.
Mechanical Floors	
18a Minimum Floor to Floor Height for each Mechanical Floor	4.2 mts.
18b Minimum number of Mechanical Floors	2
18c Mechanical floor between each Building Volume	Compulsory
18d Allowable usage for Mechanical Floors	As per National Building Code

Note: All dimensions are in metres.
All dimensions are to be read and not measured.

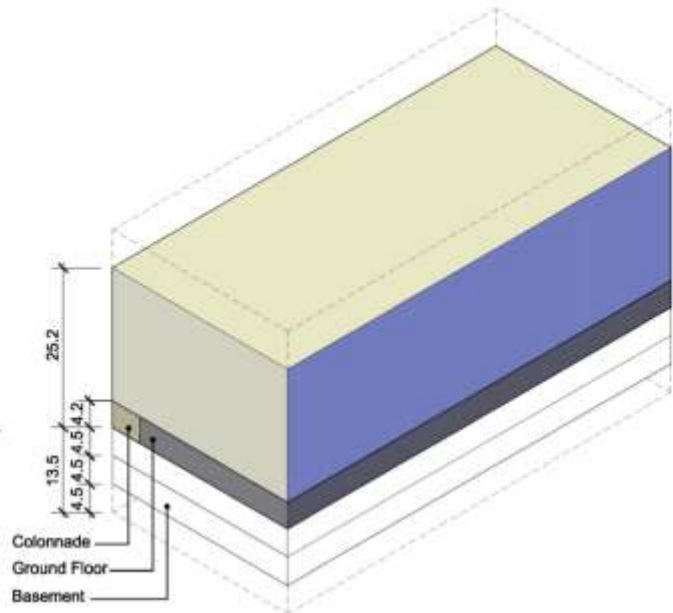
West Gandhi Bridge to Nehru Bridge (WGN 06)

SRFD Building WGN 06



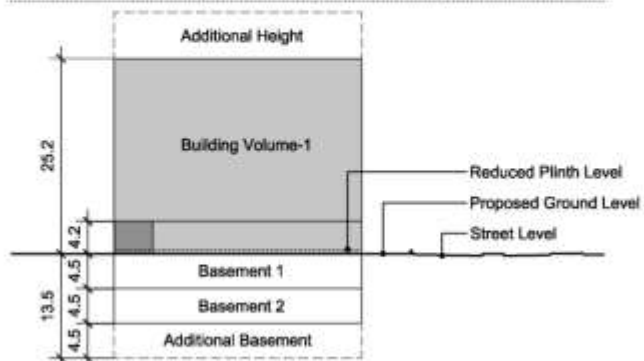
Building Footprint

- Legends :
- Building Edge
 - - - Build To Line (BTL)
 - Building Area
 - Colonnade Area



Building Envelope Isometric View

Maximum Permissible Height sanctioned by Airport Authority



Section AA

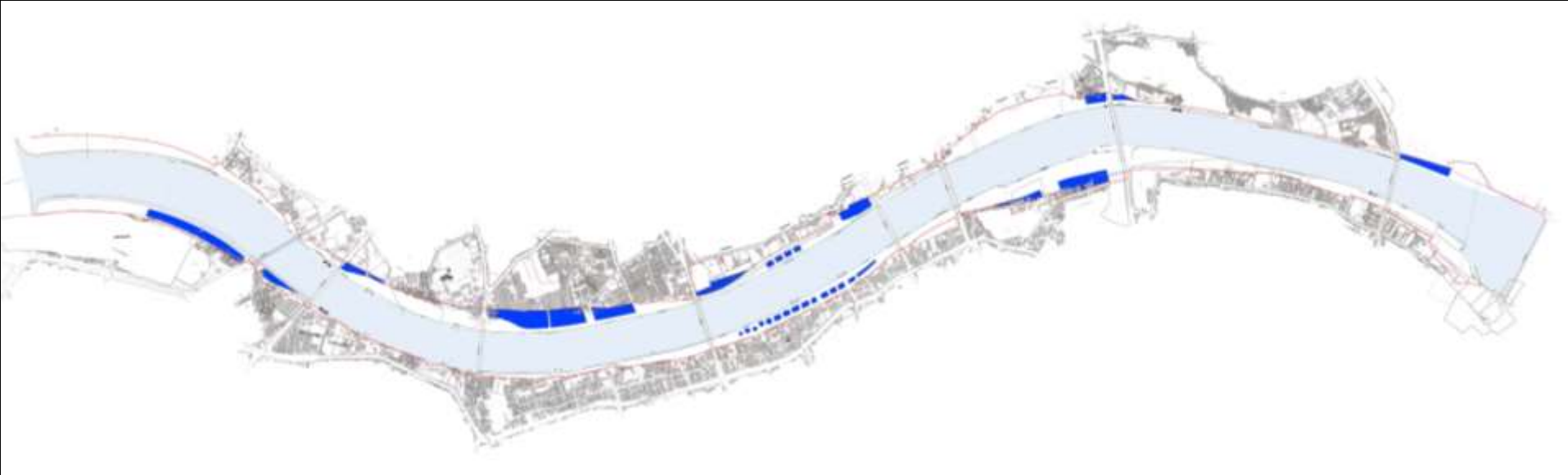
Volumetric Guidelines and Regulations

Building Placement	
1 Building Footprint Area	2243sq. mts.
2 Reduced Plinth Level	49.3 mts.
3 Built-To-Line (BTL)	
3a Building edge at BTL (up to 4.2 m height)	100%
3b River Side: Building edge at BTL (Above 4.2m height)	Mn. 75 %
3c Street Side: Building edge at BTL (Above 4.2m height)	Mn. 75 %
3d No projections are permitted outside the BTL edges on all	Compulsory
4 Colonnade	Compulsory
4a River Side building edge coverage	100%
4c Depth	5 mts.
4c Height	4.2 mts.
Built Form – Typologies	
5 Open Space at Ground Level	
5a Minimum Area (25% of Building Footprint Area)	N/A
6 Building Volume 1	
6a Colonnade Area (public right of way)	350 sq. mts.
6b Maximum Ground Floor Area	1893 sq. mts.
6c Typical Floor Area	2043 sq. mts.
6d Maximum Built Up Area	11439 sq. mts.
7 Building Volume 2	N/A
7a Typical Floor Area	
7b Maximum Mechanical Floor Area	
7c Maximum Built Up Area	
8 Building Volume 3	N/A
8a Typical Floor Area	
8b Maximum Mechanical Floor Area	
8c Maximum Built Up Area	
9 Basement	
9a Typical Basement Area	2243 sq. mts.
9b Maximum Permissible Area (3 Basement Floors)	6729 sq. mts.
10 Total Permissible Built Up Area (6d+7c+8c)	11439 sq. mts.
Built Form – Heights	
11 Maximum Permissible Height for Building Volume 1	25.2 mts.
12 Maximum Permissible Height for Building Volume 2	N/A
13 Maximum Permissible Height for Building Volume 3	N/A
14 Maximum Permissible Height (11+12+13)	25.2 mts.
15 Additional Permissible Height for parapets, stair cabins, elevator shafts, overhead water tanks & roof level mechanical areas, subject to NOC from Airport Authority	7.5 mts.
15a All mechanical equipment and services should be screened to avoid visibility.	Compulsory
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Financial calculation for recovery of project cost



Total Land for Sale – 2,97,182 sqm

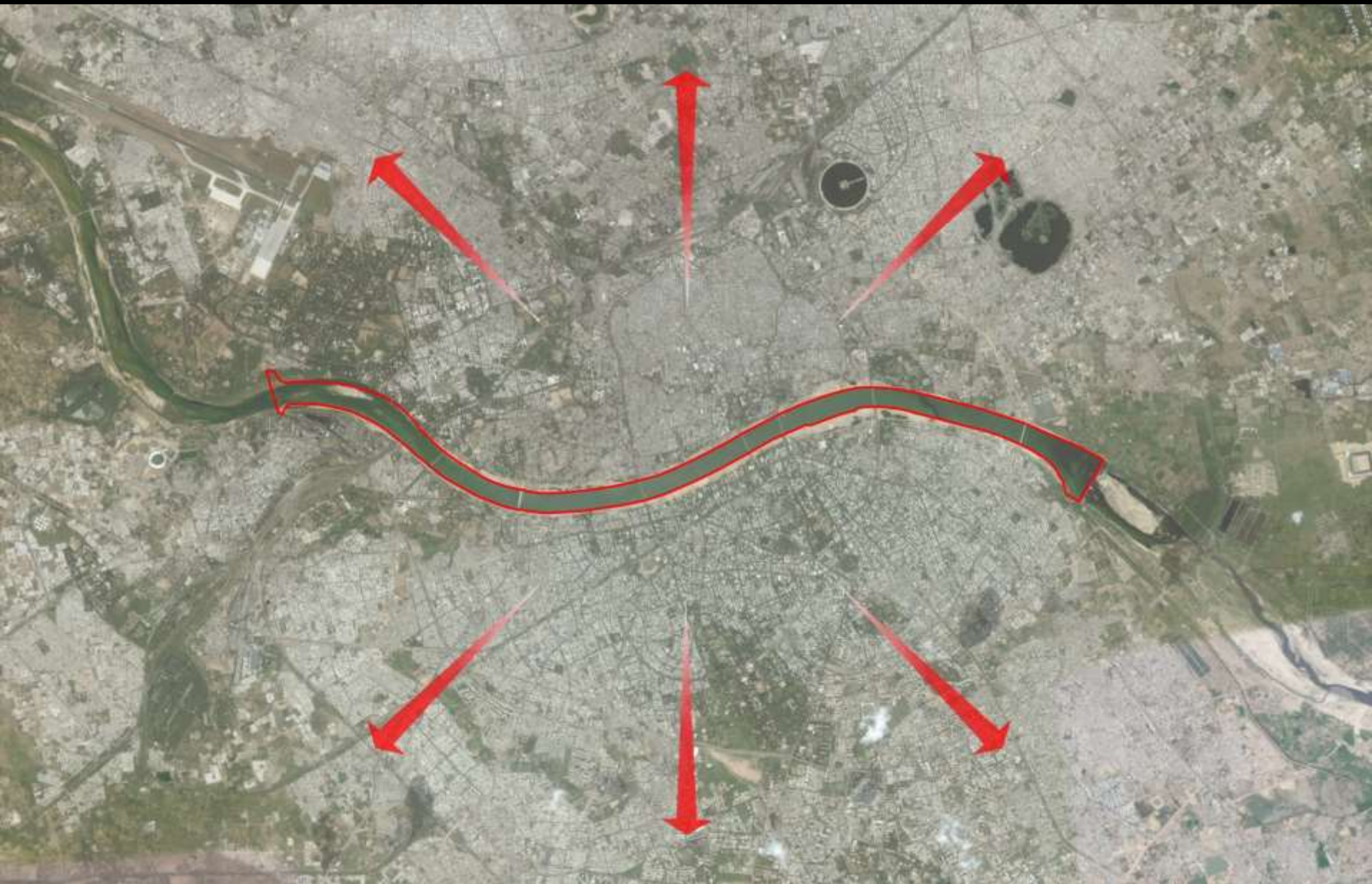
Total Built up Area (Construction) – 9,52,268.43sqm (1,02,46,408.31 sqft)

Total Revenue – Rs.1500 Crore (@ rate of Rs.1500 per Sqft)

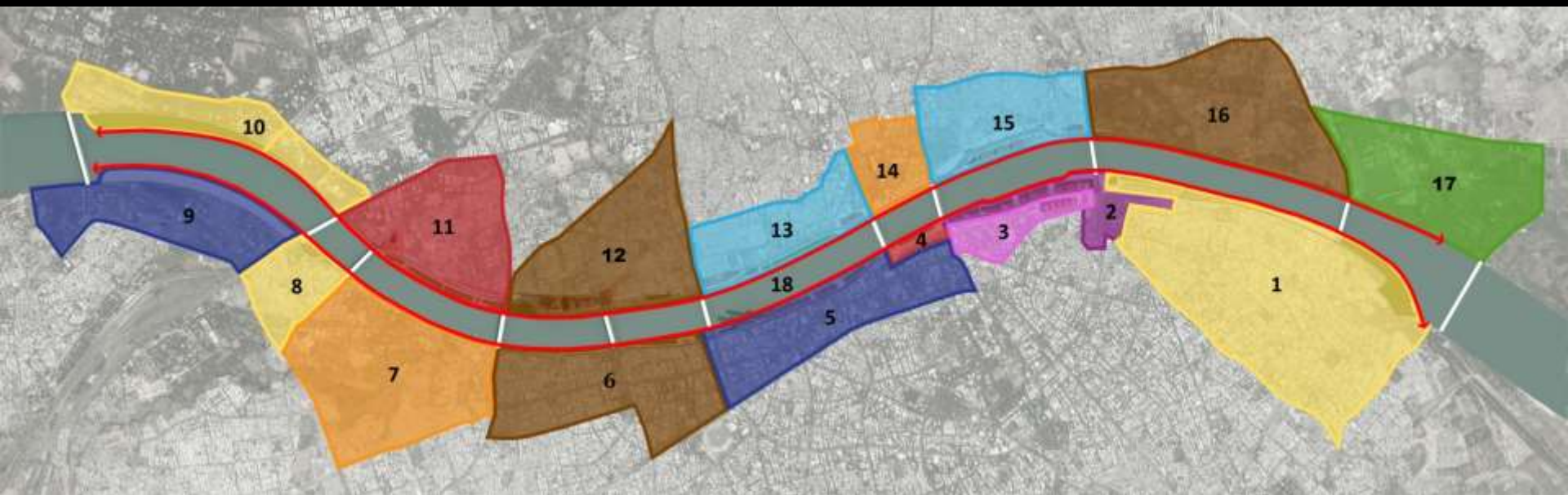
Project Cost – Rs.1200 Crore

Corpus fund for O and M – Rs.300 Crore

The Riverfront Project can transform surrounding Area of Project . . .



Planning Precincts



1. Paldi Residential Neighborhood
2. Cultural Mile
3. Health-care Hub
4. B J Park Institutional Precinct
5. Ashram road Business District
6. Ashram road Mixed Use Precinct
7. Gandhi Ashram Heritage Precinct
8. Sabarmati Residential Neighborhood
9. Sabarmati Redevelopment Precinct

10. Shahibagh Residential Neighborhood
11. Shahibagh Institutional Precinct
12. Dudeshwar Mixed Use Precinct
13. Khanpur Mile
14. Lal Darwaza Heritage Precinct
15. Fair and Market Precinct
16. Calico Redevelopment Precinct
17. Pirana Precinct
18. Lower Promenade

Planned Densification of Downtown around the SRFD Project

Ahmedabad



San Francisco





Nehru Bridge

Future Development

Public Park

Future Development

Gandhi Bridge



Gandhi Bridge

Future Development

Public Park

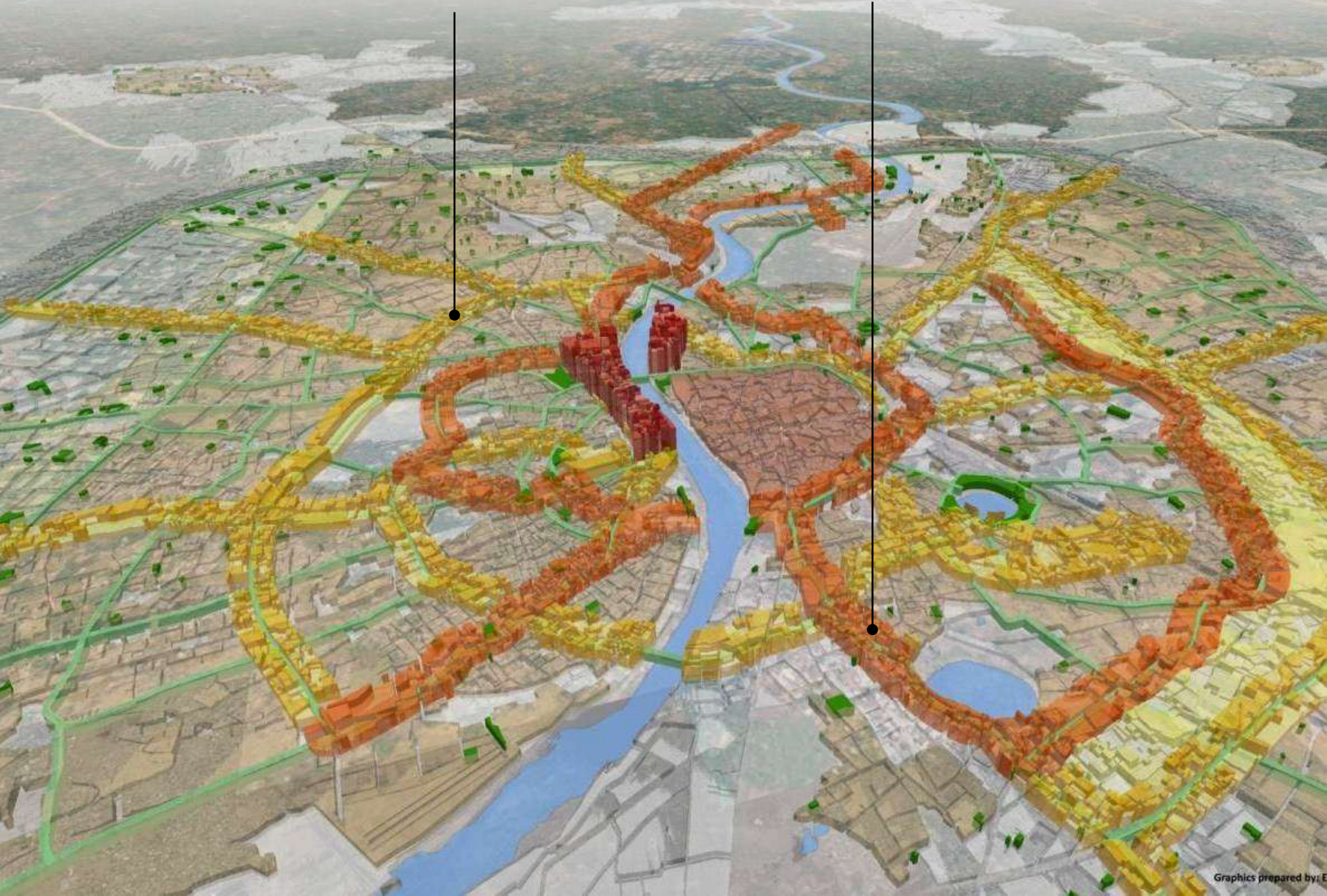
Future Development

Nehru Bridge

Land as Resource for financing of
Large scale Urban Projects:

Bus Rapid Transit System (BRTS)

Ahmedabad's Proposed Transit Oriented Zone



Densification of area around BRTS route...

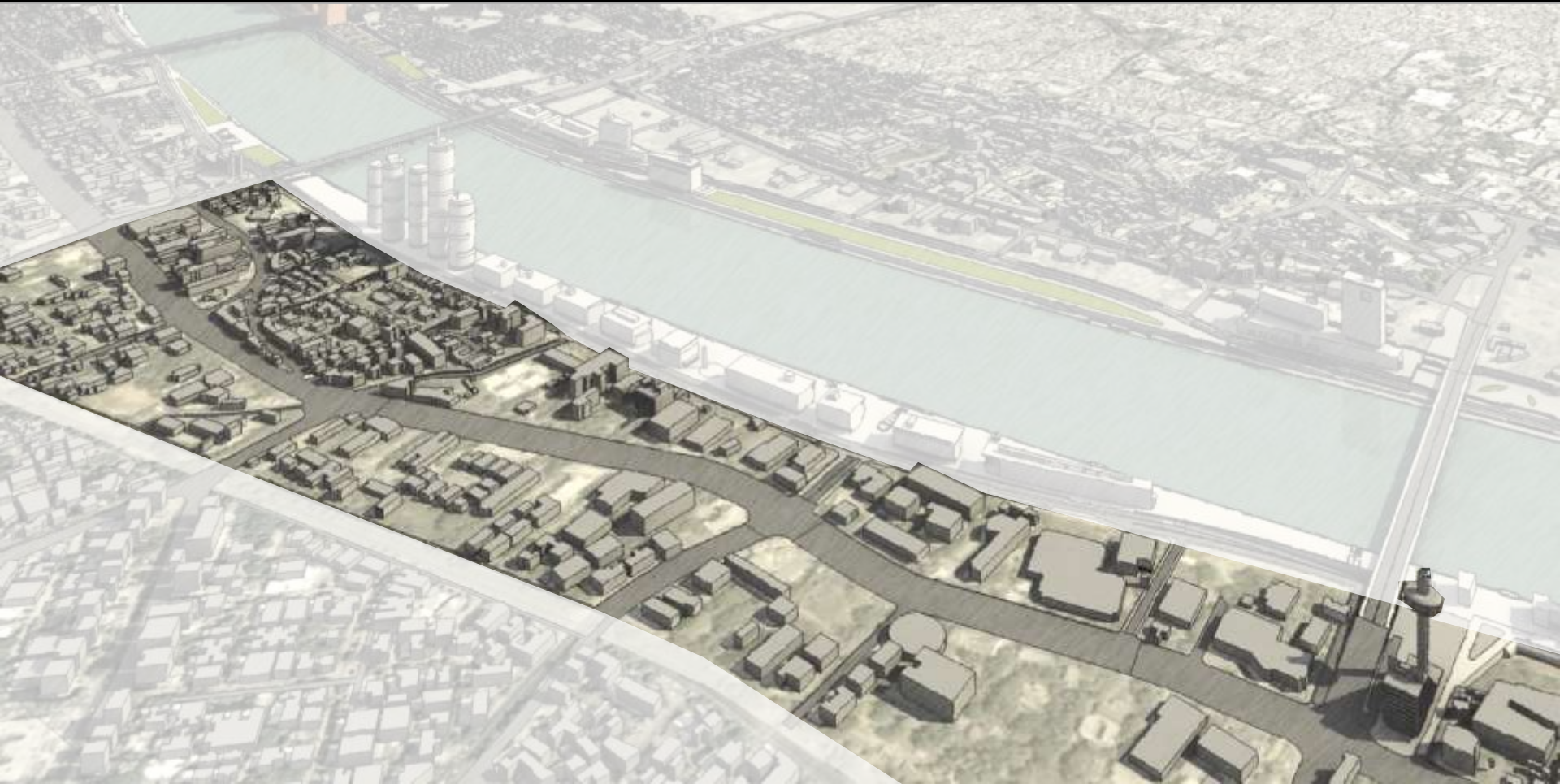
- 200 mt wide Area demarcated on both the side of BRTS route as Transit Oriented Zone (TOZ)
- Well planed systematic Densification around BRTS route
- Encouraging people for using public Transport and Walking
- Acting as catalyst to reality market

Densification of area around BRTS route...



- Significant Increase in density
3 to 4 times more than existing
- Finance generation by TDR and sale of FSI
- More people can live and work near transport facility
- Better organized built form
- Additional roads, integrated road network
- Completely new pedestrian network
- New public spaces, arcade and plazas

Densification of area around BRTS route...



Densification of area around BRTS route...



THANK YOU