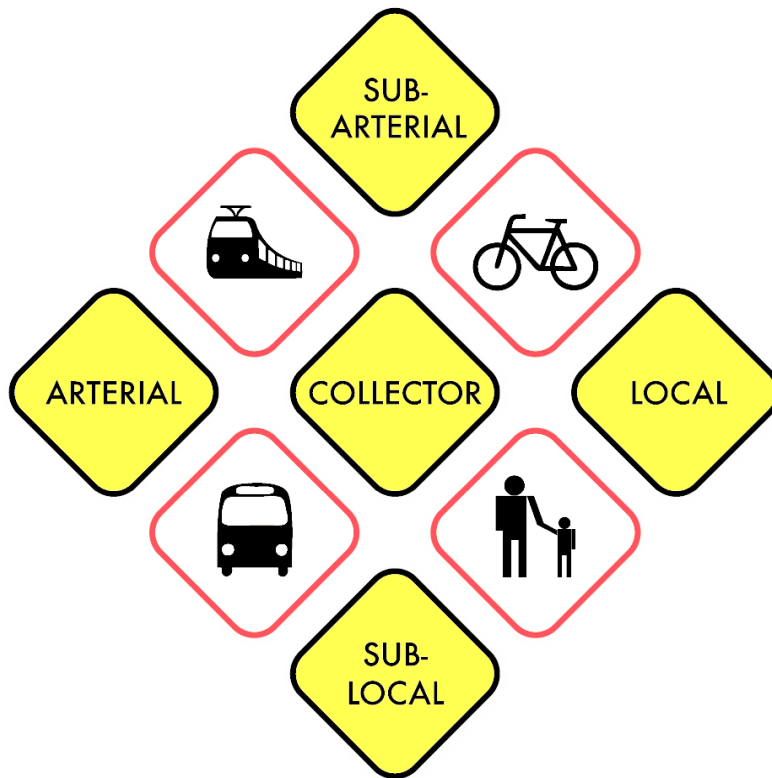


TENDER SURE FOR COMPLETE STREETS IN UTTAR PRADESH

HLC – LUCKNOW CONCLAVE | 23 – 24 September 2022





**SPECIFICATIONS FOR URBAN
ROADS EXECUTION (SURE)
Design, implementation and
maintenance* standards.**

“DESIGN THE ROAD IN ITS ENTIRETY”

Tender SURE Guidelines for robust roads facilitating smooth movement of people and utilities

Key Standards

- **Organized underground utilities** contained within the footpath with regular inspection chambers providing both individual property level and city level connections
- **Organised over ground utilities** such as transformers and amenities such as bus stops, on street parking
- **Balanced division of the right-of way** providing for all modes of transport and actively promoting walkability for women and children
- Improved road safety through designed junctions

“SPENDING ONCE BUT SPENDING RIGHT”

TENDER SURE REACH IN INDIA



2022

INTERSECTION REDESIGN -to promote road safety and reduce fatalities in 4 key junctions



> 165 kms of Tender SURE Roads in India

> 20 Junction Improvements

2021

ODISHA SURE – 65 Kms of local roads redevelopment in 10 cities

2022

JUNCTION IMPROVEMENT – 13 key intersections across 6 zones in Hyderabad

TENDER SURE ROAD REDEVELOPMENT
1.2 km model road in Nalgonda

2020

CHENNAI MEGA STREETS
15 kms of pedestrian prioritised complete streets

2022

COIMBATORE STREETS PROGRAMME
1.5 kms of streets

2018

TENDER SURE ROAD REDEVELOPMENT
20 Kms in Hubballi - Dharwad

2016

TENDER SURE ROAD REDEVELOPMENT
60 Kms of in Bengaluru

WHY DO WE NEED TENDER S.U.R.E ? - INDIAN STREETS AND ITS CHALLENGES

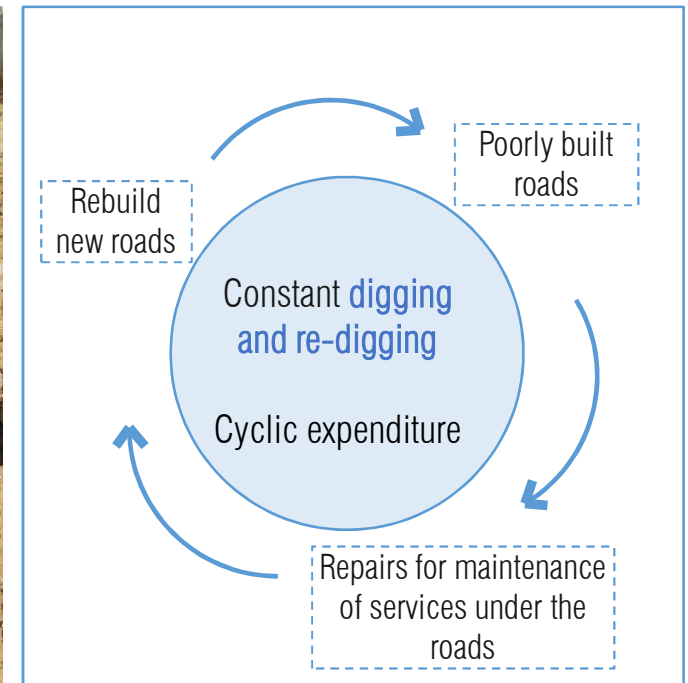


Vicious cycle of **digging and re-digging** by various service providers with no actual improvement to the road infrastructure.

Power lines below the road requiring frequent digging up for repair and maintenance

Crisscrossing service lines creating chaos – especially w.r.t to house connections

Unhealthy proximity between the water supply and sewer lines



Roads in Bengaluru

WHY DO WE NEED TENDER S.U.R.E ? INDIAN STREETS AND ITS CHALLENGES

Disorganised utilities on streets and travel lanes with varying widths resulting in poor mobility



Exposed cables and poorly designed footpaths



Broken storm water drains – urban flooding



Obtrusive utility structures - manholes on travel lane



Lack of pedestrian infrastructure

Line men operating water valves on the travel lane

WHY DO WE NEED TENDER S.U.R.E ? - INDIAN STREETS AND ITS CHALLENGES

Lack of bicycle and pedestrian infrastructure - Poor road safety | Disorganized parking



Footpaths encroached by vehicles

Exposed cables and poorly designed footpaths

Lack of pedestrian infrastructure



Teen Theeli, Lucknow



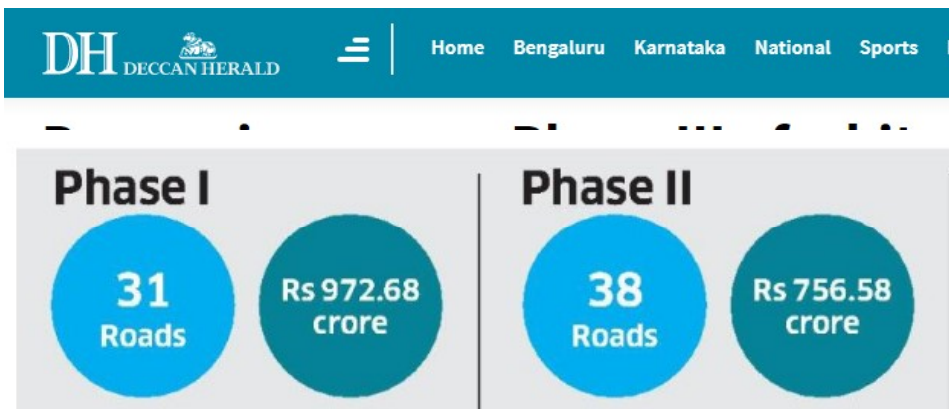
Balaganj, Lucknow

WHY DO WE NEED TENDER S.U.R.E ? - INDIAN STREETS AND ITS CHALLENGES

Large and cyclic expenditure on road repairs and maintenance - no improvement to the user experience



According to several media sources, cities like Mumbai, Bangalore, Pune, Amritsar, Hyderabad are expending large amounts on recurring repairs and surface maintenance of roads due to low quality construction, formation of pot holes, constant digging of roads etc which **often exceeds the original construction cost of the roads.**



AMRITSAR

Rs 46 crore for improving surface i...

EDITION IN IN BENGALURU 25°C

NEWS / CITY NEWS / MUMBAI NEWS / It's The Pits! BMC Spent Rs 21k Crore On Roads In 24 Years, Sh...

THIS STORY IS FROM JULY 28, 2021

The Indian EXPRESS

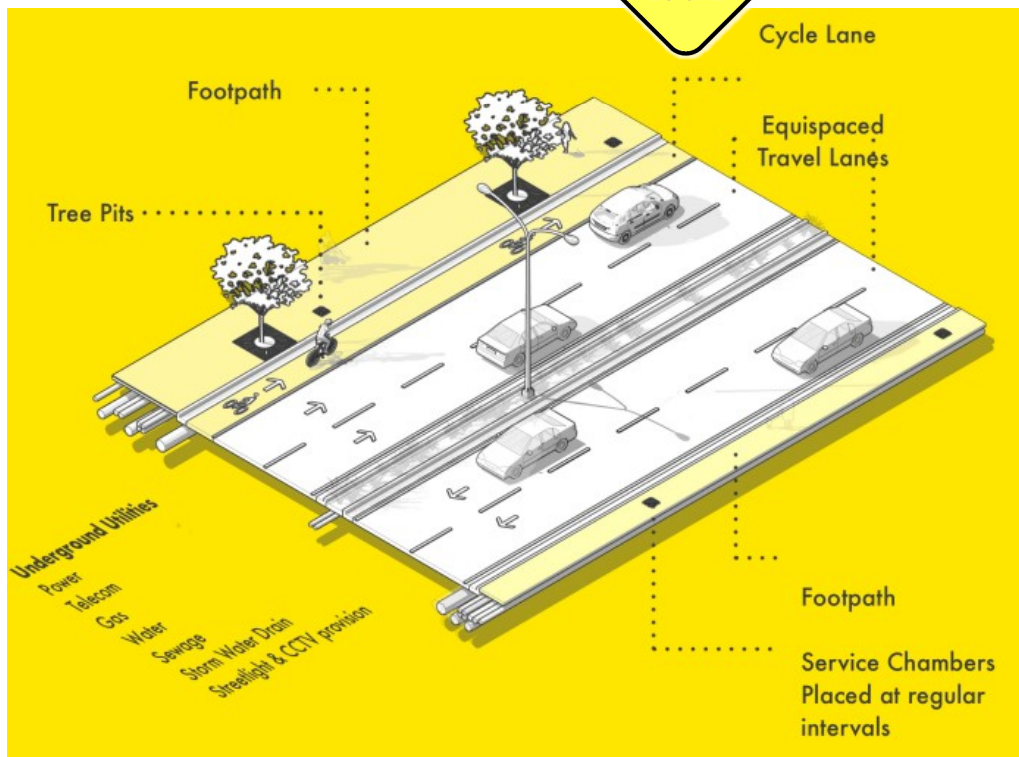
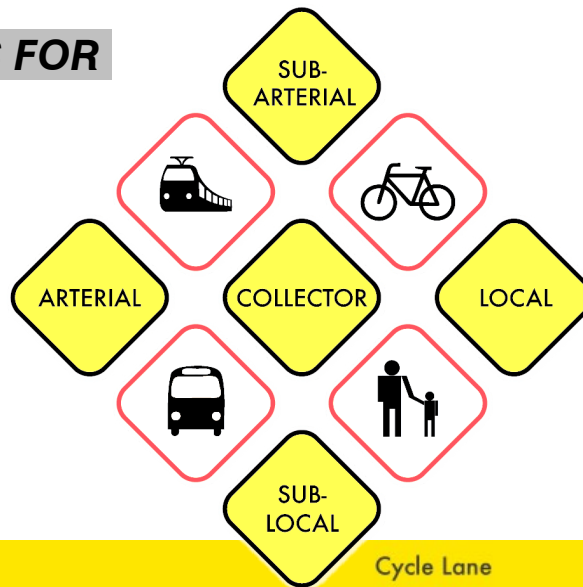
Ahead of PM Modi's visit to Bengaluru for two d...

Pune, 10th August 2022: The indecent state of roads in Pune was high heavy rains in the last three days. New potholes have appeared on repaired earlier have started to crumble again. Therefore, it is clear

HOW DOES A TENDER S.U.R.E. ROAD SOLVE THESE PROBLEMS ?



SPECIFICATIONS FOR URBAN ROADS EXECUTION



01 ORGANIZED UNDERGROUND UTILITIES

An organized corridor for underground utilities for improved level of services.



02 FINANCIAL SUSTAINABILITY

Spend once but spend right to save on life cycle costs.



03 EQUITABLE DIVISION OF RIGHT OF WAY

Designated safe movement corridor for all modes of travel with enhanced user experience.



WHAT DOES A TENDER SURE ROAD SOLVE ?

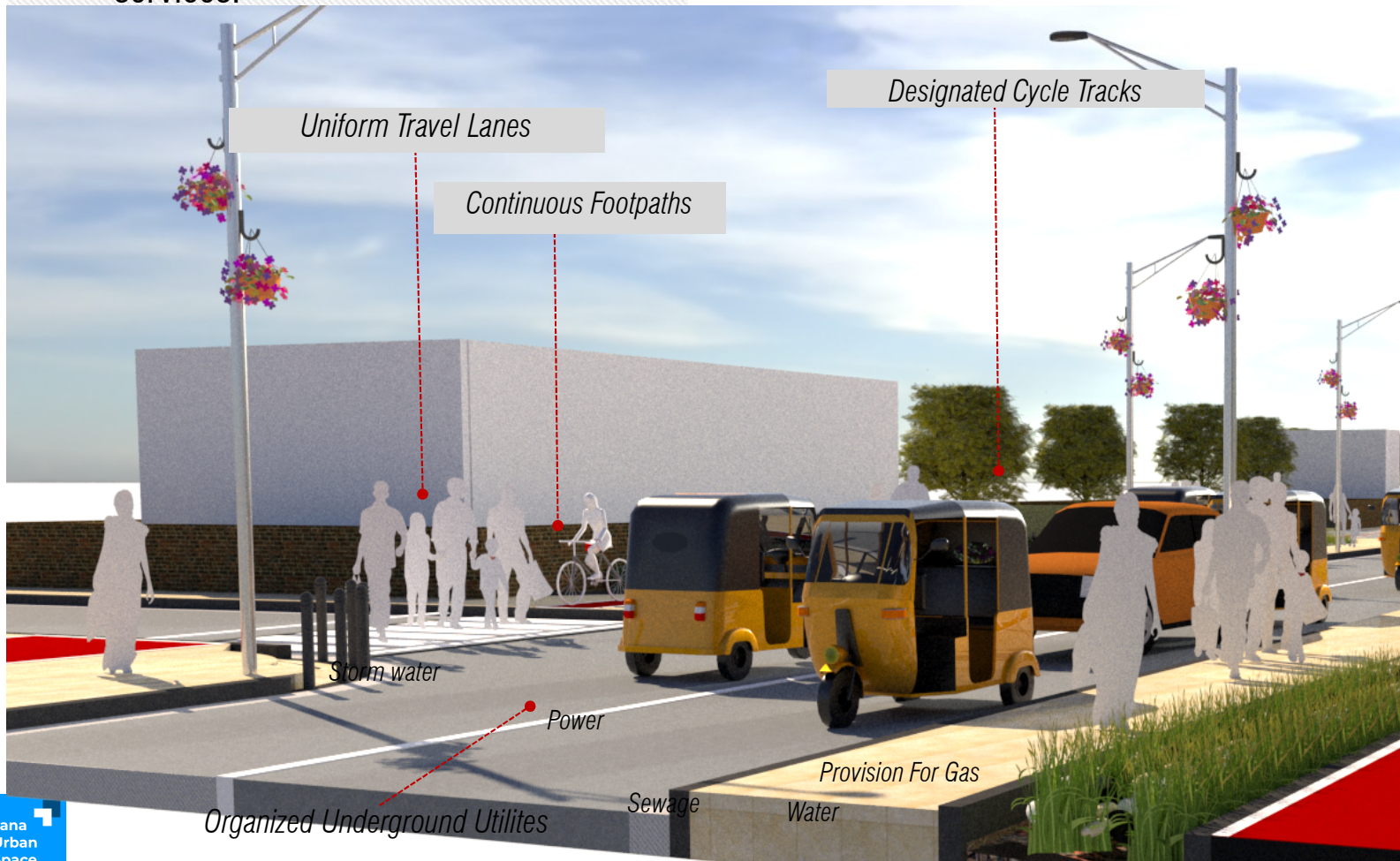
A movement corridor for utilities and people



01 ORGANIZED UNDERGROUND UTILITIES



Contained within the footpath on both sides for improved level of services.



Cross connections across the road

No road-cutting for maintenance works

Improved pedestrian infrastructure

Ducts provided for individual property connections as well as to the city network

Provision of ducts for future utilities

WHAT DOES A TENDER SURE ROAD SOLVE ?

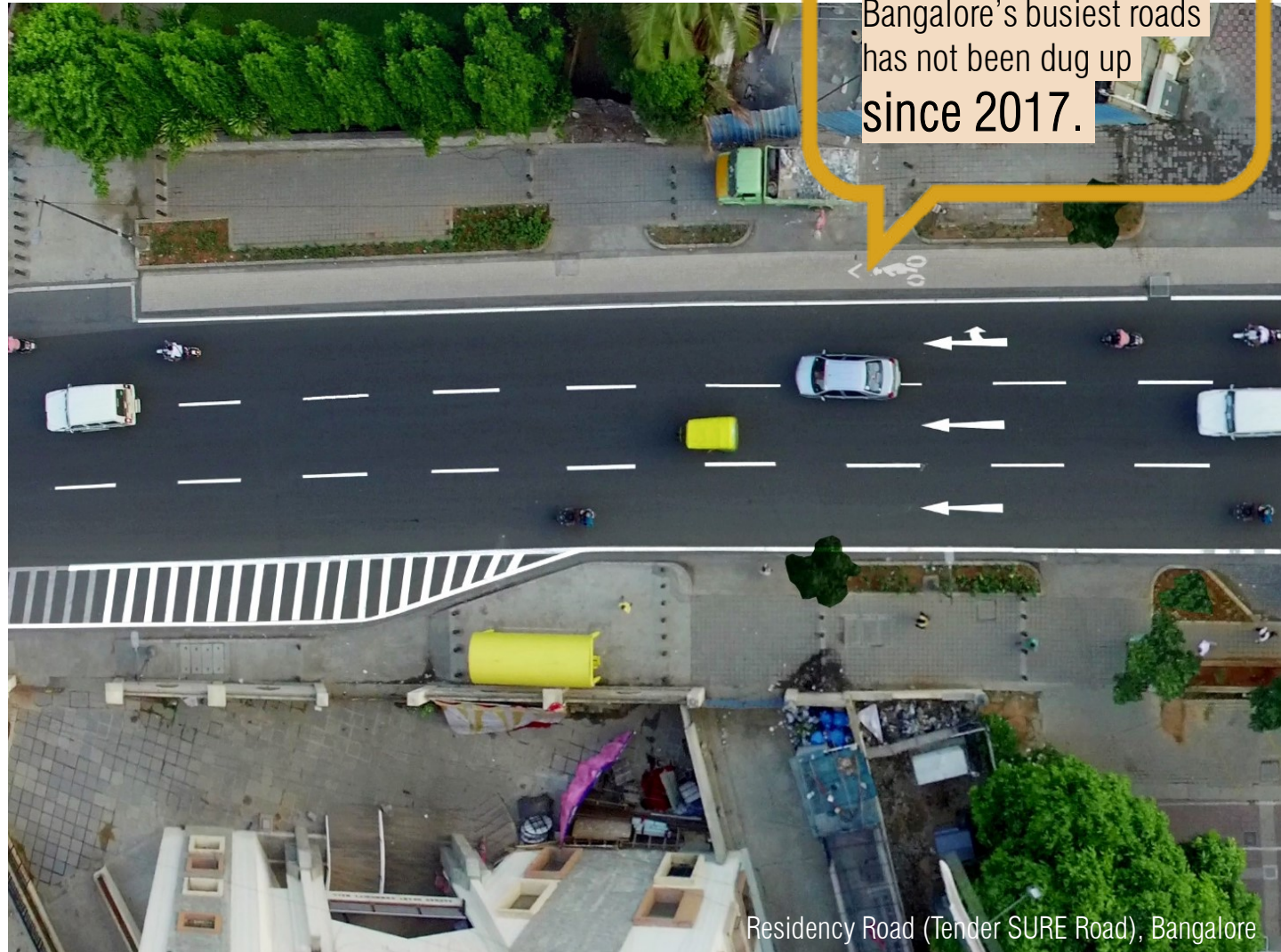
A movement corridor for utilities and people



02 FINANCIAL SUSTAINABILITY

Spend once but spend right to save the life cycle cost.

Safe, inclusive
And vibrant streets and public spaces also lead to higher property values, higher footfalls and economic activity.



Richmond Road, one of Bangalore's busiest roads has not been dug up since 2017.

Residency Road (Tender SURE Road), Bangalore

WHAT DOES A TENDER SURE ROAD SOLVE ?

A movement corridor for utilities and people



“ ROAD REDEVELOPMENT ”



Richmond Road in Bangalore redeveloped as a Tender SURE road and has not been dug up since 2017.



Storm water drain across Hayes Road at Richmond Road

WHAT DOES A TENDER SURE ROAD SOLVE ?

A movement corridor for utilities and people

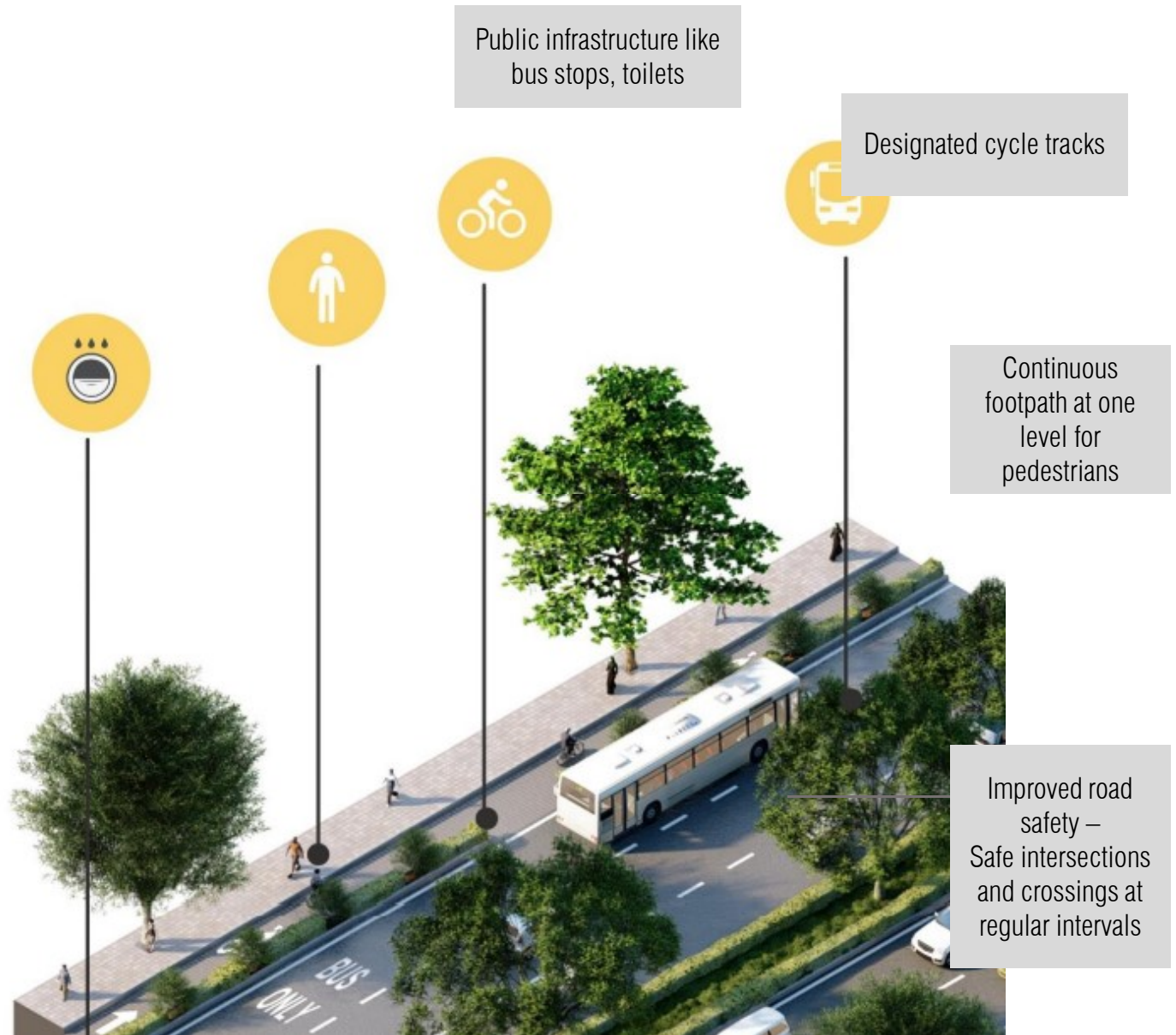


03 **EQUITABLE DIVISION OF RIGHT OF WAY**

A designated safe movement corridor for all user groups.

i. Gender inclusivity - Equitable access to opportunities and services

ii. Environmental sustainability- Walkable and cycle -able streets lead to cleaner air & overall improved public health



WHAT DOES A TENDER SURE ROAD SOLVE ?

A movement corridor for utilities and people



“ ROAD REDEVELOPMENT ”



Richmond Road in Bangalore redeveloped as a Tender SURE road and provides for continuous footpaths across entry and exits

Continuous footpath at-grade at Richmond Road

WHAT DOES A TENDER SURE ROAD SOLVE ?

A movement corridor for utilities and people



03 **EQUITABLE DIVISION OF RIGHT OF WAY**

A designated safe movement corridor for all user groups.

Walkable and cycle-able streets lead to cleaner air & overall improved public health.

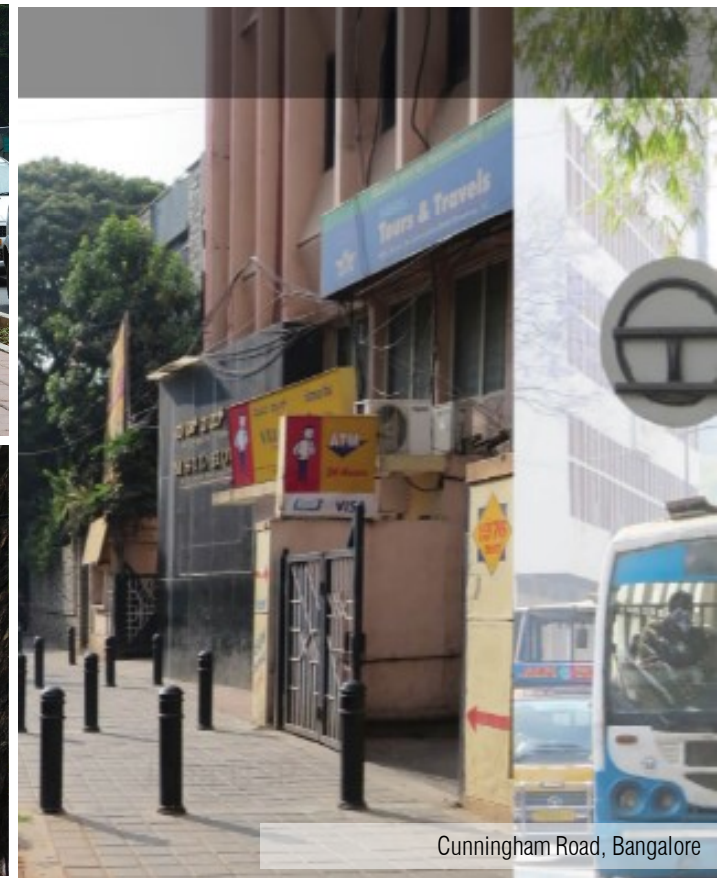
“Build once and build right” – reduction in environmental impact of continuous construction.



Cycle Tracks at Residency Road, Bangalore



Cycle Tracks at Vittal Mallya Hospital Road, Bangalore



Cunningham Road, Bangalore

WHAT DOES A TENDER SURE ROAD SOLVE ?

A movement corridor for utilities and people



Reclaiming public space at St. Marks Road, Bangalore (2015)



Improving road safety at D'Souza Circle, Bangalore (2017)

ADDITIONAL BENEFITS

01 > **Vibrant public realm**
stage for public art, landscape inclusion, events, lights and more

02 > **Last mile connectivity**
Upgrading public infrastructure and connecting it to footpath/ NMT infrastructure

03 > **Active Mobility**
Promoting walkability and non-motorized transport

04 > **Organised on-street parking**
compatible with smart parking, curb side EV charging

05 > **Improved road safety**
Geometric improved of roads with dedicated refuge spots

06 > **Dedicated vending zones**
Proper allocation of vending zones and allied public activities

07 > **Increased land value**
Increased land and property value surrounding Tender SURE roads

TENDER S.U.R.E FOR COMPLETE STREETS IN UTTAR PRADESH



The vision for Uttar Pradesh is to **provide for improved road infrastructure with ducted utilities for all** through Tender SURE with four outcomes under economy, environment, equity and engagement.

1. ENVIRONMENT

'Build once and build right'

Walkable and cycle-able streets leads to cleaner air & overall improved public health, reduced impact of repetitive construction

2. EQUITY

Equitable access to opportunities and services

A designated safe movement corridor for women, children, urban poor and the differently abled

3. ECONOMY

Economic growth, jobs and livelihood

Landmark streets in each city connecting to important destinations | designated vending | increase in land value

4. ENGAGEMENT

Engagement & trust between citizens & government

Participatory design, project monitoring and ongoing engagement through road quality audits, Street and Ward Quality Scores can build trust at the ward and sub-ward levels

TENDER SURE FOR COMPLETE STREETS IN UTTAR PRADESH



“Safe and Inclusive streets”

“Improved Walkability”

“Integrated Underground Utilities”

The aim is to provide a robust, safe and comfortable movement corridor for utilities and people irrespective of the mode of transport in cities of Uttar Pradesh.

The primary focus is to provide a ducted corridor for underground utilities including but not limited to water supply, sewerage, storm water drainage, gas, power, telecom, street light, and surveillance with regular inspection chambers contained within the footpath on both sides. This is to prevent digging, re-digging, and cyclic expenditure while improving the level of services and enhancing the user experience.

KEY STRATEGIES TO THE VISION



1

To develop design, execution and maintenance guidelines for urban roads along with ducted utility corridor, improved walkability and safety.



2

To provide skill based training to designers, engineers, contractors, and other stakeholders on the design, execution and maintenance guidelines.



3

Pilots and proof of concepts to showcase the guidelines and scale up in phases.

HOW TO BUILD COMPLETE STREETS USING TENDER S.U.R.E IN UTTAR PRADESH ?

A 10-step guide



1. Design Guidelines
2. Execution Guidelines
3. Champions
4. Proof of Concepts
5. Budget
6. Integrated Tender
7. Community and Media Engagement
8. Good For Construction Drawings
9. Project Monitoring
10. Capacity Building

HOW TO BUILD COMPLETE STREETS IN UTTAR PRADESH ?

A 10-step guide to build Tender SURE roads



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DESIGN GUIDELINES AND EXECUTION GUIDELINES

Develop Tender SURE Design and Execution Guidelines specific to Uttar Pradesh using the original guidelines as reference and contextualising as per the needs of the state.

Guidelines to be prepared under the High Level Committee for Uttar Pradesh – “Sustainable Urban Transport and Development” which can be institutionalised by the state and further adopted by various cities and towns in Uttar Pradesh.



HOW TO BUILD COMPLETE STREETS IN UTTAR PRADESH ?

A 10-step guide to build Tender SURE roads



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CHAMPIONS

Identify potential economic centres in Uttar Pradesh for development by leveraging on the growth potential of cities, state's new tourism initiatives, economic opportunities due to various development projects such as highway/expressway and fast corridor projects, cities along Ganges with a potential for tourism and ghat development.

ECONOMIC GROWTH CENTRES

1. Gautam Buddha Nagar (Noida)
2. Ghaziabad
3. Meerut
4. Saharanpur
5. Moradabad

SMART CITIES

1. Kanpur
2. Lucknow
3. Prayagraj

CITIES WITH TOURISM POTENTIAL

1. Varanasi
2. Agra
3. Mathura
4. Jhansi



HOW TO BUILD COMPLETE STREETS IN UTTAR PRADESH ?

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PROOF OF CONCEPTS

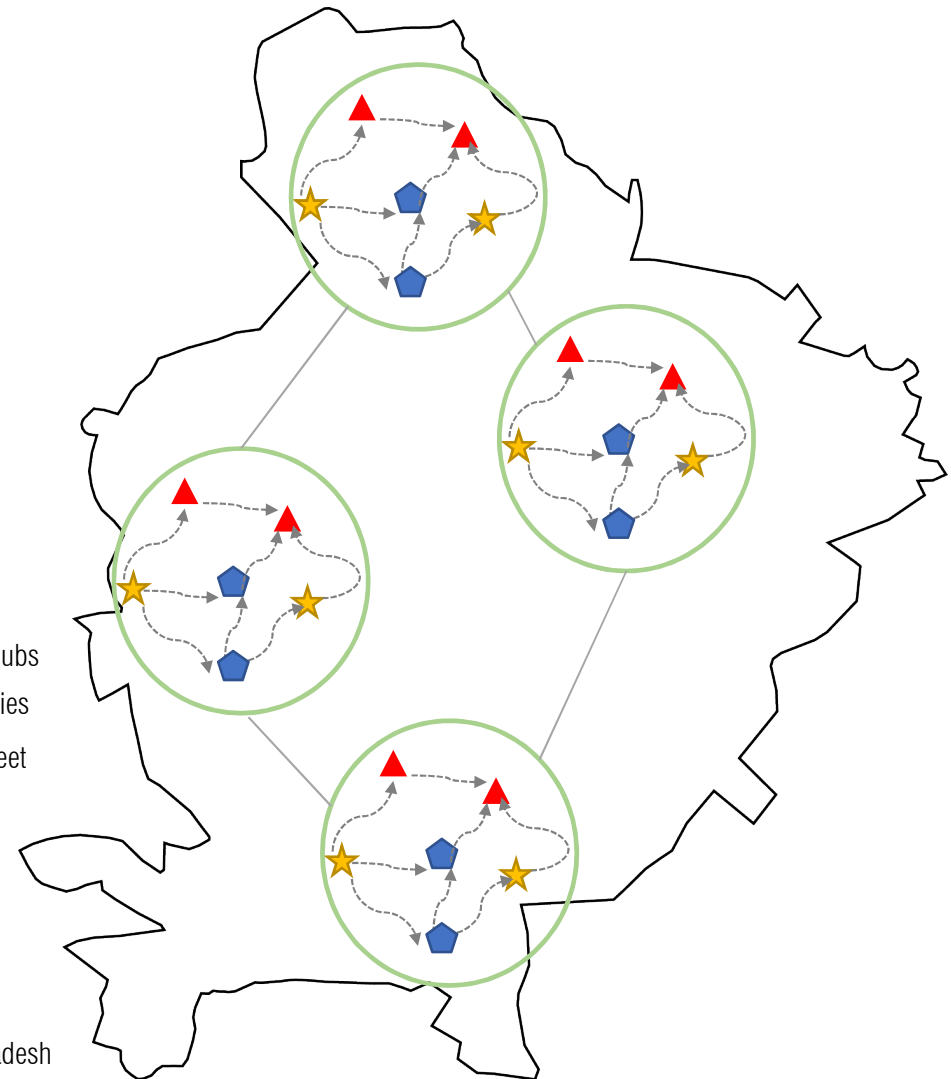
To create a continuous (at least) 10-15 KM SURE road network in each city connecting key landmarks such as medical facilities, mobility hubs, institutional and commercial areas.

Explore convergence with State Government Initiatives such as Smart Roads and Urban Nodes Programme under Smart City Mission.

For example, redevelop 25kms and improve relevant intersections of major road network in Lucknow city under the Smart Road Initiative.

Similarly, in other smart cities like Kanpur, Prayagraj, Varanasi, Agra through relevant collaborations with the state.

- Institutions
- Commercial Hubs
- Medical facilities
- 10-15 KM street network



Lucknow, Uttar Pradesh



Before Tender S.U.R.E



Before Tender S.U.R.E



After Tender S.U.R.E

HOW TO BUILD COMPLETE STREETS IN UTTAR PRADESH ?

A 10-step guide to build Tender SURE roads



BUDGET

01 TENDER SURE- Fully Loaded Arterial/Sub- Arterial Road

Organized underground utilities under the footpath on both sides of the road including storm water, water supply, sewage, power, telecom, street lights, surveillance and piped gas | Uniform travel lanes, continuous footpaths, cycle tracks and organized parking |

Budget: 10-15 Crores per KM

02 TENDER SURE *Lite* Collector/ Local/Sub- Local Road

One or two organized underground utilities under the footpath on both sides of the road | Provision of utility duct to accommodate one or two future utilities | Uniform travel lanes, continuous footpaths, cycle tracks and organized parking |

Budget: 3-8 Crores per KM

TIMELINE



Commissariat Road, Bangalore



Local road under construction, Cuttack

HOW TO BUILD COMPLETE STREETS IN UTTAR PRADESH ?

A 10-step guide to build Tender SURE roads



BUDGET

03 Special / High Streets – Landmark shopping streets | High streets | Boulevards and special streets |

Budget- 20 Crores per KM

04 Tourism Trails – streets with a special character to connect tourist places with pause points | historic parks | open exhibitions | innovative plaza spaces |

Budget- 10 Crores per KM

TIMELINE



Church Street, Bangalore



Bahadur Shah Zafar Marg, Delhi (Proposed)

HOW TO BUILD COMPLETE STREETS IN UTTAR PRADESH ?

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BUDGET

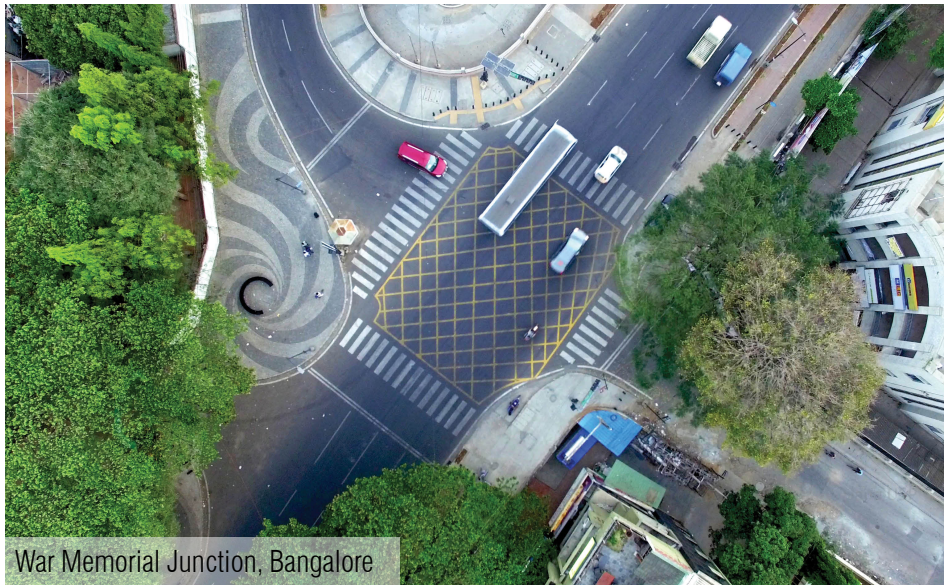
05 Intersections to promote road safety with crossings, plazas, footpaths, street lights, signage, and storm water drainage |

Budget – 50-75 lakhs per intersection

TIMELINE



3-5 Months



War Memorial Junction, Bangalore



Narayanaguda Junction, Hyderabad

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INTEGRATED TENDER



UNDERGROUND SERVICES

Ducts for all utilities (storm water, power, sewer, water supply, telecom and gas) are provided under the footpath and cycle track with inspection chambers at regular intervals. The underground infrastructure is connected

TRAVEL LANES

Travel lanes of uniform width from start to end, separated by a median or paint lines as

LANDSCAPE STRIP

Designated landscape strips which also house the streetlights.

CYCLE TRACK

Designated cycle track separated from other modes of movement

FOOTPATH

Continuous footpath, evenly paved, provided on both sides of the road

HOW TO BUILD COMPLETE STREETS IN UTTAR PRADESH ?

A 10-step guide to build Tender SURE roads



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INTEGRATED TENDER



Weekly review meetings with engineers from all utility departments



Monthly review meetings chaired by Chief Secretary and Weekly review meetings chaired by Municipal Commissioner

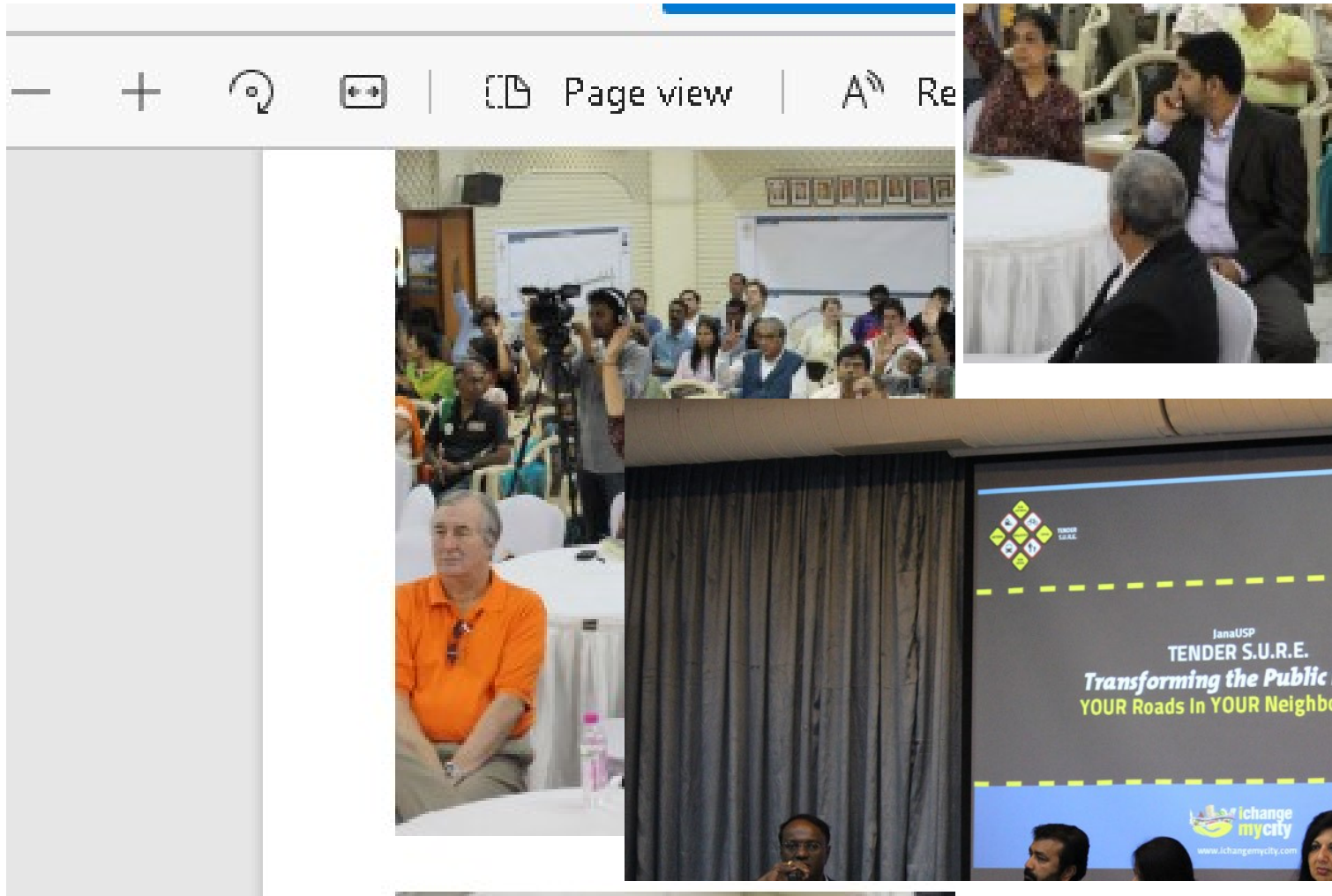
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COMMUNITY AND MEDIA ENGAGEMENT



Interactions with media and public

HOW TO BUILD COMPLETE STREETS IN UTTAR PRADESH ?

A 10-step guide to build Tender SURE roads



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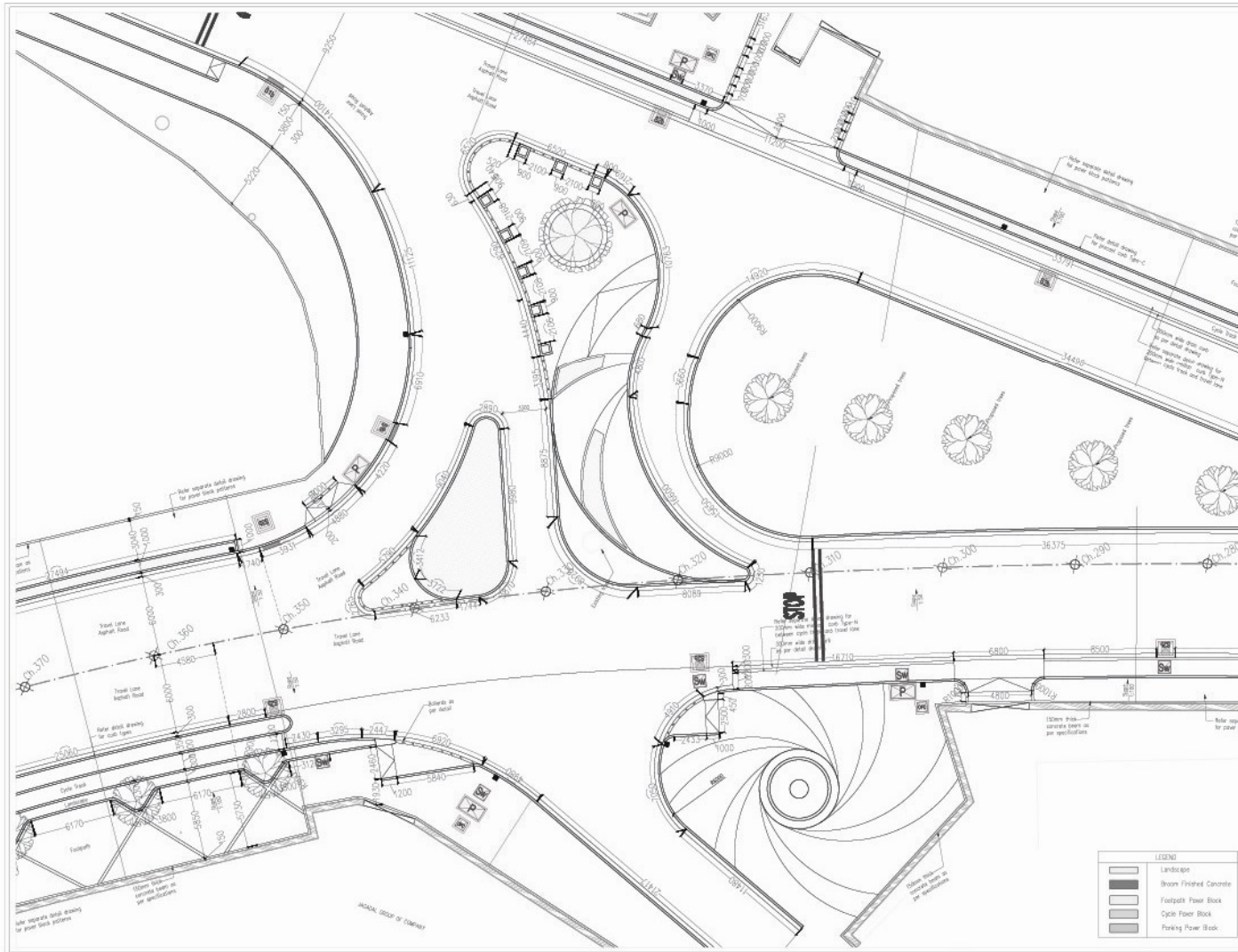
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GOOD FOR CONSTRUCTION DRAWINGS



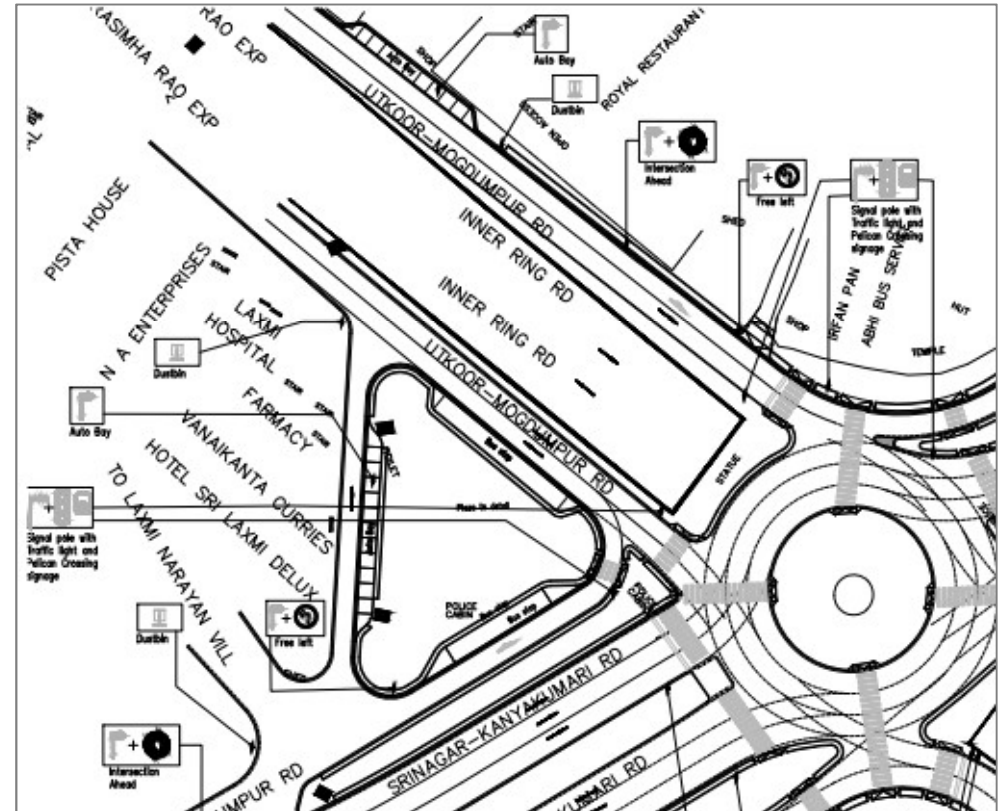
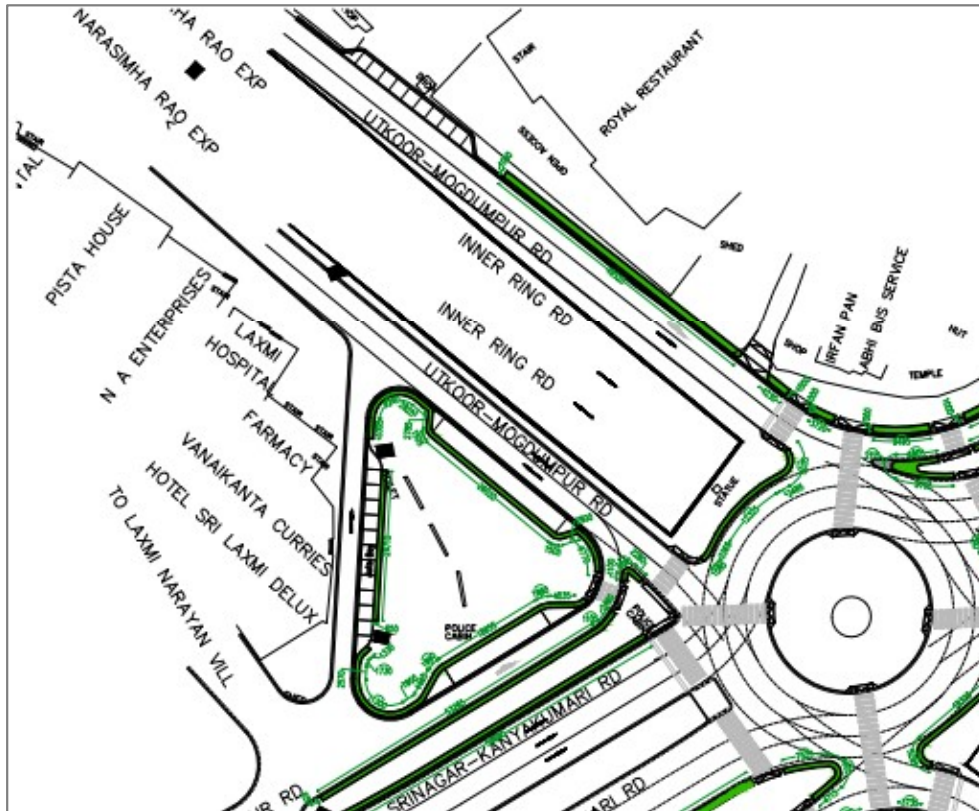
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GOOD FOR CONSTRUCTION DRAWINGS



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PROJECT MANAGEMENT, SKILL BASED TRAININGS & CAPACITY BUILDING PROGRAMMES

Periodic site visits and professional development for the design and engineer community to be strategized and commenced post completion of the guidelines.



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VISITING DELEGATIONS | SCALING AND REPLICATION



Hardeep Singh Puri, Minister of Housing and Urban Affairs visits St Marks road, 2017



Deputy Commissioner – Works and Engineers from Greater Chennai Corporation and Metro Water, Chennai visit Residency Road, 2020



THANK YOU