



**Streets for All  
Shaping Cities for Tomorrow**

# **Sustainability Mobility and Urban Planning**

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August 2024

# Major sustainable Mobility projects by GCC

- ❑ Intelligent Transport System (ITS) through JICA assistance
- ❑ Complete Streets thro' The World Bank
- ❑ Comprehensive Integrated Parking project through PPP model

# I. ITS – Objective of the Project



Address traffic goals of Master Plan



Increase average travel speed and reduce delay



Reduce traffic congestion in core area



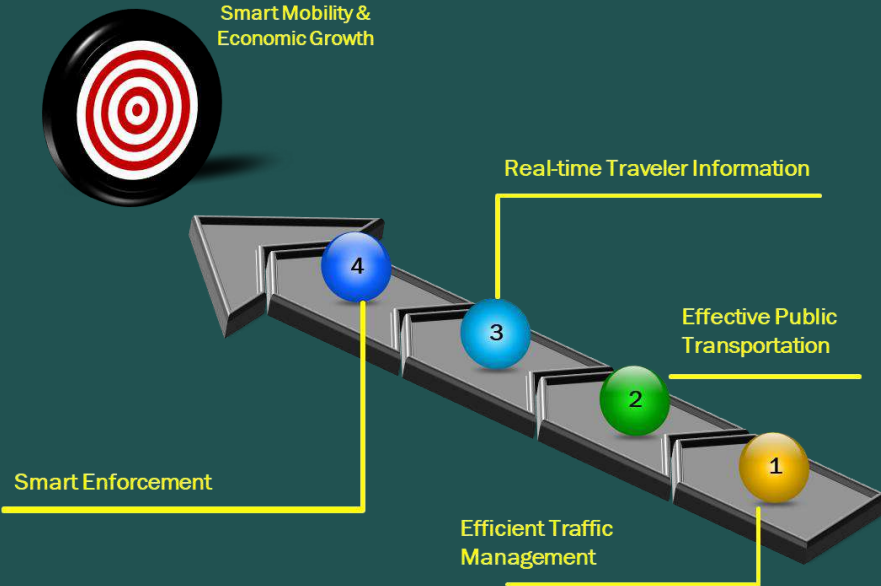
Collect accurate traffic data for analysis



Increase efficiency and reliability of public transport



# ITS – Project Outcomes



- ❑ Increased average travel speed of traffic
- ❑ Reduced Traffic delay and Greenhouse gas emissions
- ❑ Enhanced pedestrian and road safety
- ❑ Centralized traffic control
- ❑ Efficient incidence detection & management
- ❑ Effective traffic information dissemination
- ❑ Accurate traffic data collection
- ❑ Smooth traffic flow
- ❑ Seamless data sharing with other systems and authorities

# ITS Project – Components

## Variable Message Sign System

VMS – 17 Nos.  
(Approach into city thru IRR, Chennai Bye Pass & ORR)

## Traffic Incident Detection System

(TIDS) – 58 Location  
(CMA Area)

## Red Light Violation Detection

RLVD – 50 Locations  
(Core Chennai)

## Speed Limit Violation Detection System

SLVD – 11 Nos  
(Core Chennai)

## Automatic Traffic Counter cum Classifier

ATCC – 115 Locations (230 Nos.)  
(Type 1 – Chennai Bypass & ORR  
Type 2 – Chennai City)

## Adaptive Traffic Control System

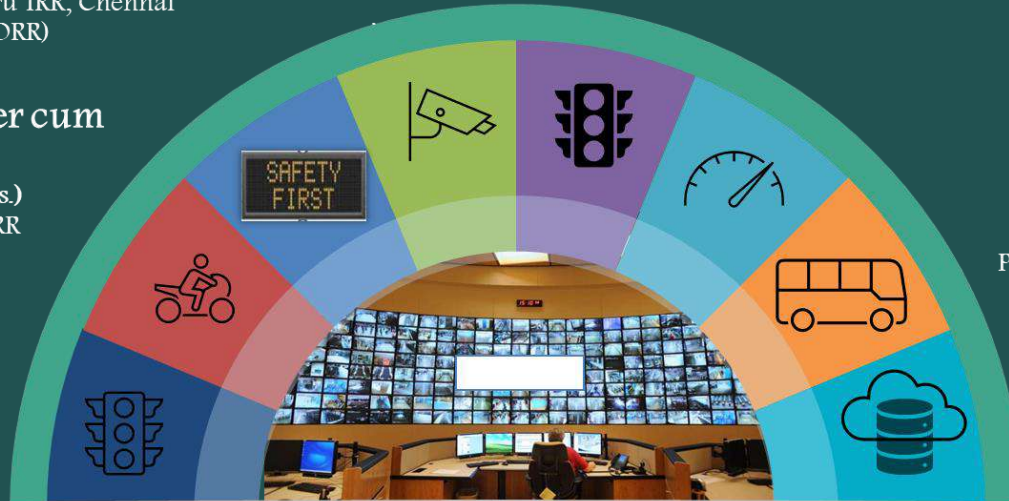
ATCS – 165 Junctions  
(Core Chennai)

## Automatic Vehicle location System

AVLS – 3500 buses  
Passenger Information System – 616 Nos.  
(10 line - 20, 4 line - 96, 2 line - 500)

## Depot Management System

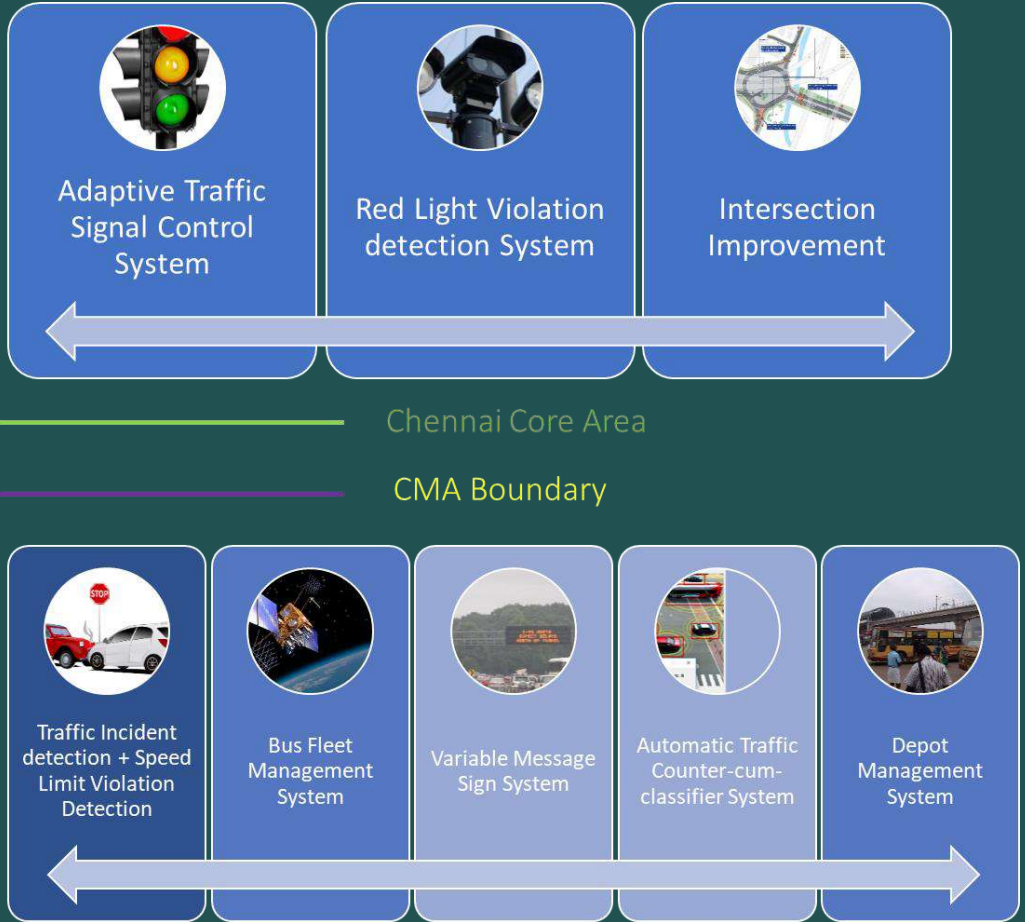
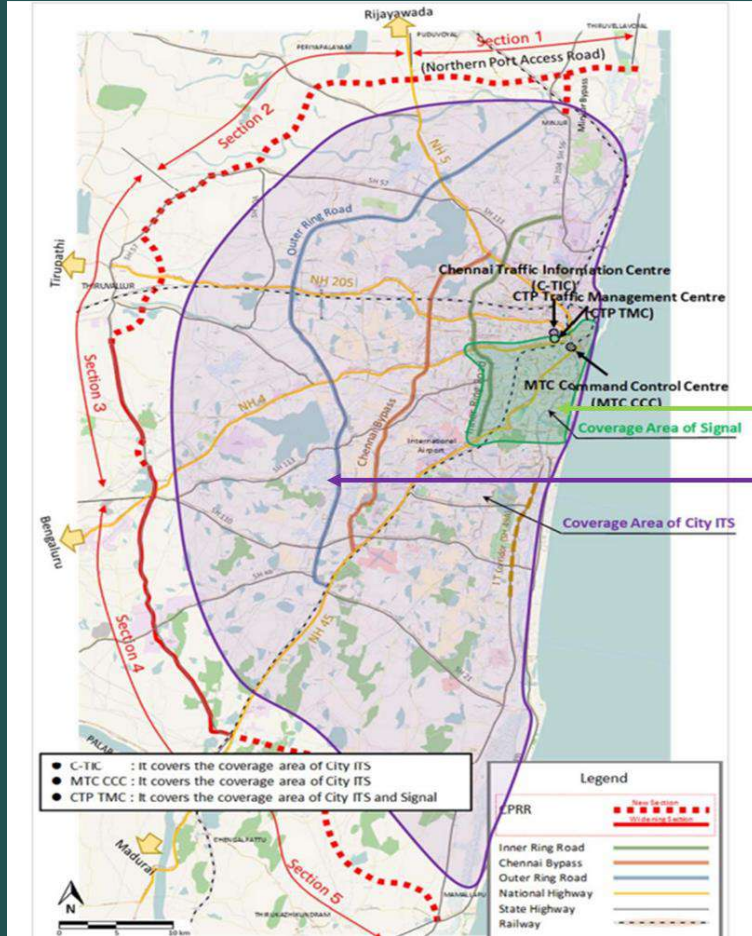
Depot Management System – 31 Depots



## 2 Command & Control Centers

TIMS CCC- Commissioner of Police,  
&  
CBS CCC - MTC Corporate Office

# ITS Project – Study Area



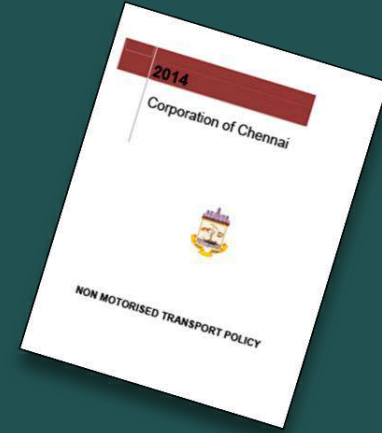
# ITS project – Current Status

- ❑ Being implemented through seamless coordination among various stakeholder departments
- ✓ Greater Chennai Traffic Police (GCTP)
- ✓ Metropolitan Transport Corporation (MTC)
- ❑ Implementation of the pilot project has been completed and full project implementation is in progress

# II. Complete Streets project

## A brief on Journey

- ❑ **Chennai – First City in the Country to adopt Non-Motorised Transport (NMT) Policy in 2014**
- ❑ **Year 2014 – 2016 : Entire network of streets redeveloped in the core city area – Egmore – 46 streets in 2 phases**
- ❑ **Year 2019 – More than 100 Km length of streets were transformed including Pedestrian Plaza**
- ❑ **Now – Implementation of Complete streets project through World Bank Chennai City Partnership Programme**



# NMT projects - Recognitions



The Chennai Street Design Project won the best practice award at Urban Mobility India 2014 and Special Mention award at White Revolution 2014.



MoUD Award for Best NMT Project - 2014

SUSTANIA Award - 2015

# Pedestrian Plaza (2019)

- ❑ The Pedestrian Plaza - to transform 1.4km of prime commercial space in the heart of the Area-Based Development (ABD) region - T Nagar.
- ❑ The road selected was Sir Theyagaraya Road - from Panagal Park to Mount Road, covering several retail outlets, malls and office buildings.
- ❑ The first 800 m which is popularly known as Pondy Bazaar, is always seen bustling with shoppers and tourists.
- ❑ Complemented with cycle-sharing system, on-street parking management system and multi-level parking facility along the stretch.
- ❑ A comprehensive boost to the Non-motorised Transport (NMT) usage in T Nagar.

# Pedestrian Plaza contd...

- ❑ One of the crucial interventions - Provision of smart ducting for utilities such as storm water drain, water supply and electrical cables.
- ❑ Haphazard cabling and ducting at Theyagaraya Road has now been re-laid in organised and distinct underground ducts.
- ❑ This ensures that the road is not repeatedly dug up for repairs and maintenance.

# Pedestrian Plaza – Key Elements

- ❑ **Widened, inclusive footpath** - Narrow 2-3 ft widened up to 10 ft in Pandy Bazaar and up to 6ft in other places.
- ❑ **Vibrant seaters**
- ❑ **Child-friendly Play Equipment**
- ❑ **Lighting** - Decorative and energy-efficient LED lights
- ❑ **Trees and Planters** - Around 60 new trees have been planted along the Plaza.
- ❑ **Utility Design** - Smart ducting boxes for underground utilities and aesthetic cover for overground utilities.
- ❑ **Bicycle Sharing** - Smart Bike stations provided at three locations
- ❑ **Wall murals**
- ❑ **Women's & Men's Lounges**

# Pedestrian Plaza – UG works during construction



# Pedestrian Plaza – Before and After



# Pedestrian Plaza - Snapshots



# Pedestrian Plaza – Celebration/Concerts



# Complete Streets embedded under Chennai City Partnership

## Vision:

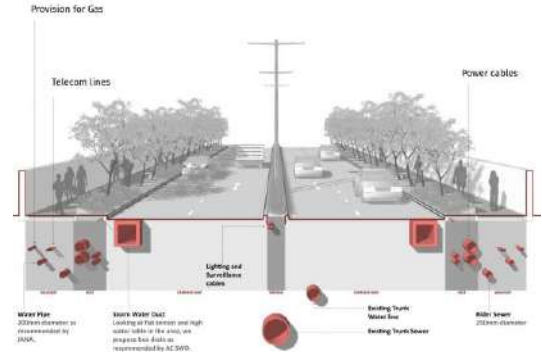
Creating neighbourhood street networks integrated with utilities

### Creating a seamless network in all neighbourhoods



- Identifying primary streets along transit
- Integrating the network with secondary streets to schools and parks
- Detailed designs

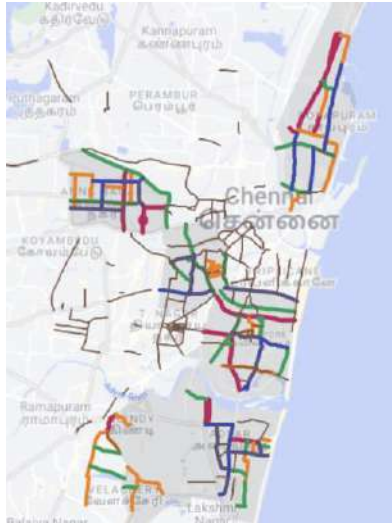
### Integrating utilities through comprehensive design



- Planning the underground utilities to ensure resilience, make streets cut-proof, include landscape elements, and ensure 30 years life span for streets.

# Indicators for selection of areas for transformation

## Creating a seamless network



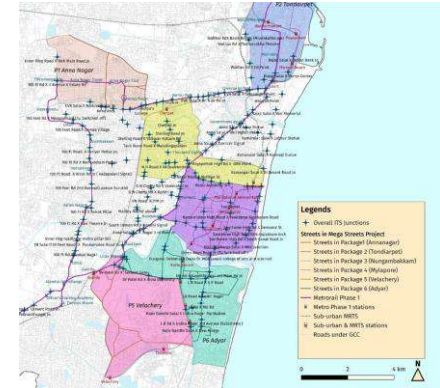
Creating a network connecting missing links from Smart Urban Roads Project

## Equitable growth across different neighbourhoods



To provide equitable growth prospects throughout the city, **6 neighbourhoods** were identified in the dense core of the city.

## Integration with ongoing projects



**67 out of 165** ITS Junctions are covered in the network

**41 transit stops** including existing and upcoming metro stations

# Complete Streets **embedded under Chennai City Partnership**

## **SUSP – Sustainable Urban Services Program**

**Total length of roads = 11.6 Km**

- ◆ Target for Year-2 = 5 Km
- ◆ Target for Year-4 & 5 = 6.6 Km

## **UMSD – Urban Mobility and Spatial Development**

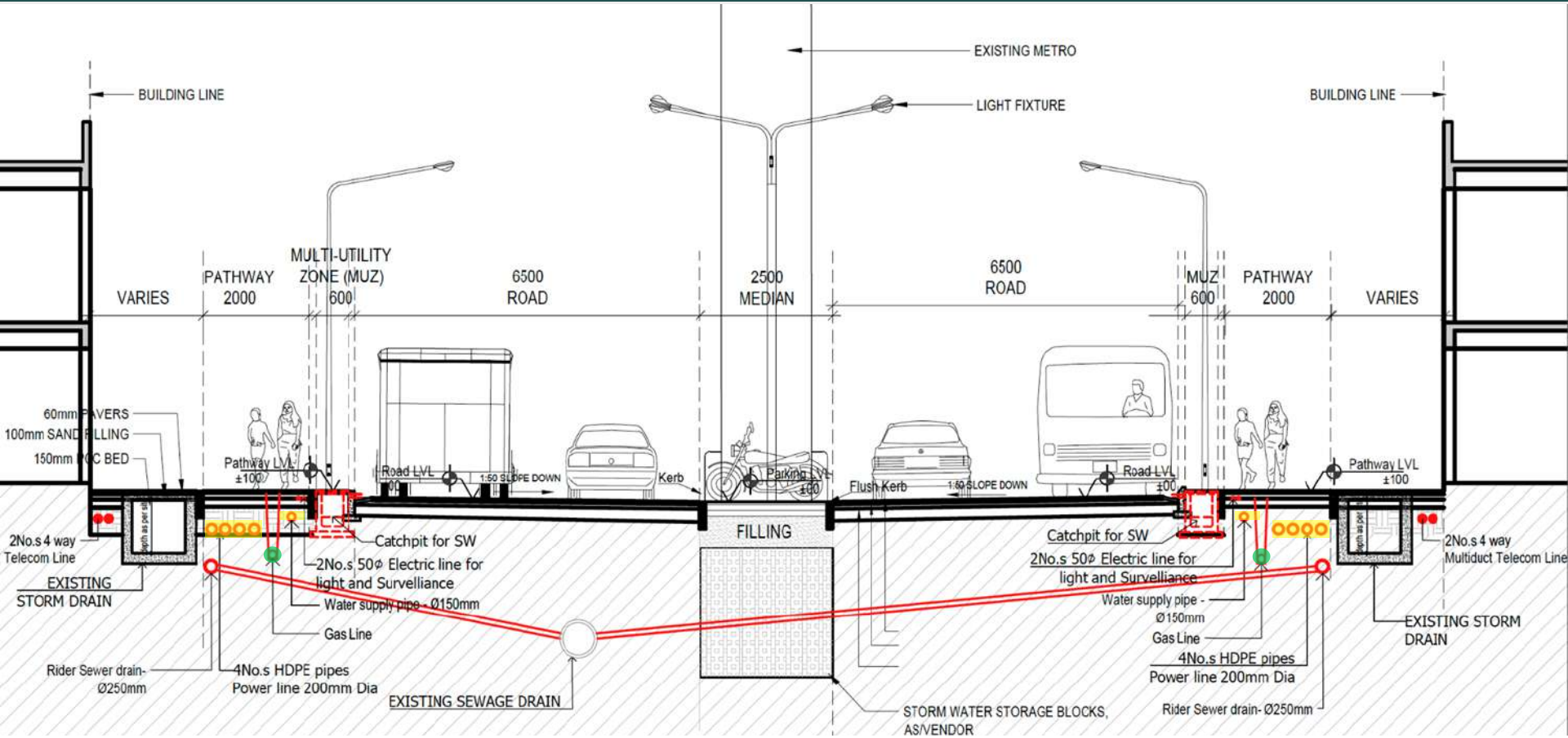
**Total length of roads = 58.8 Km + 32 Km (MMI)**

- ◆ Target for Part-A = 18.3 Km
- ◆ Target for Part-B (Multimodal Integration) = 32 Km
- ◆ Target for Part-C = 40.5 Km

# Proposed cross section of streets



# Utility management – Future provisions



# Complete streets project – Selected Roads

## SUSP – A Roads

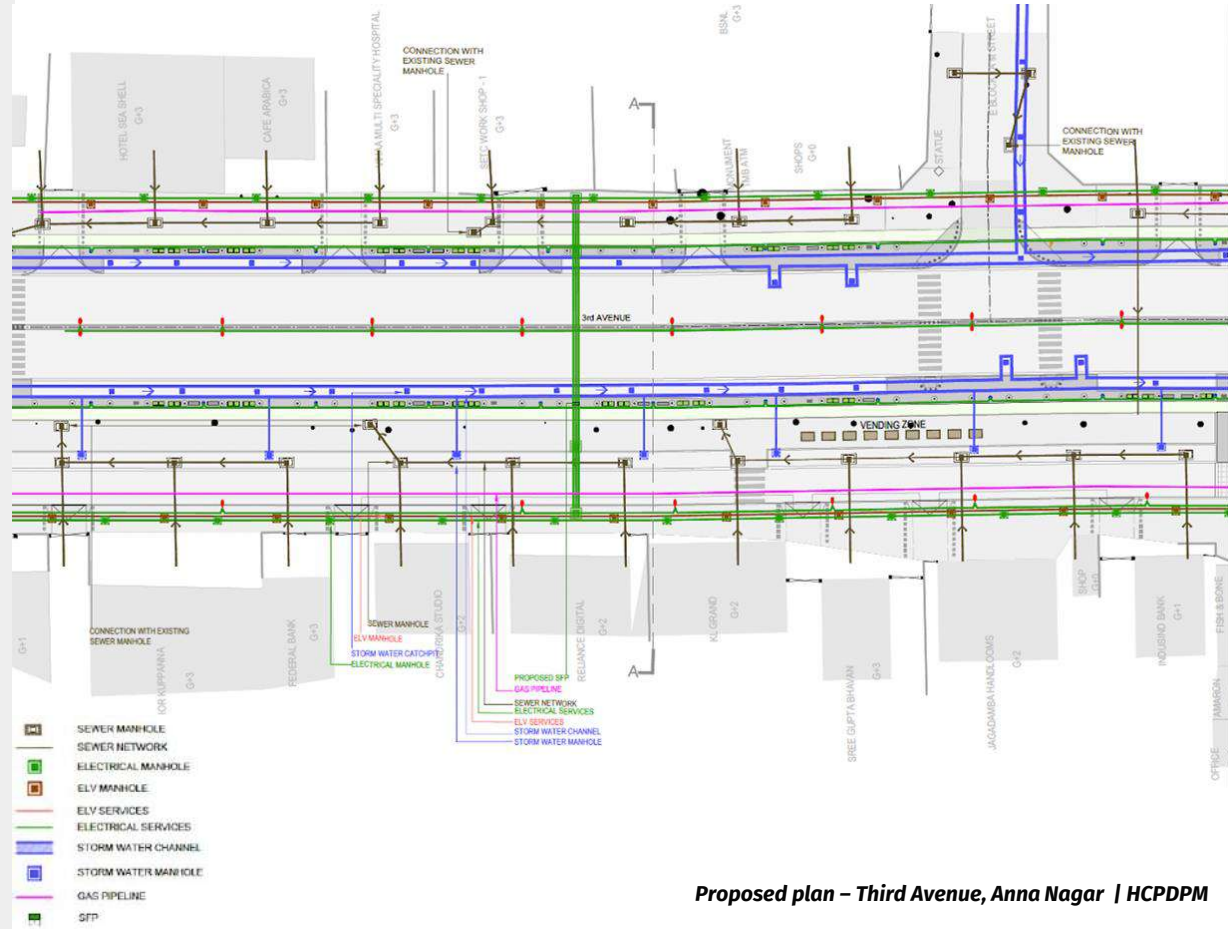
S No	Zone	Roads selected	Length (Km)
1	5	Monegar Choultry (MC) road	1.0
2	9	Khader Nawaz Khan (KNK) road	0.7
3	13	Race Course road	0.9
4	4	Thiruvottiyur High road	1.2
5	4	Arunachaleswar Koil Street	1.2
<b>SUSP – A roads length</b>			<b>5.0</b>

## SUSP – B Roads

S No	Zone	Roads selected	Length (Km)
1	8	Anna Nagar 3 <sup>rd</sup> Avenue	2.4
2	8	Kilpauk Garden road	1.5
3	8	Pulla Avenue	1.5
4	13	Canal Bank road	1.0
5	13	West Canal Bank road	1.0
<b>SUSP – B roads length</b>			<b>7.4</b>

# Utility management – Repair and maintenance provisions

Provisions made for repair and maintenance of underground utility lines i.e. proposed arrangements of inspection chambers etc. for respective utility lines



# Anna Nagar 3rd Avenue Existing and Proposed Design



Anna Nagar 3rd Avenue  
Existing



Anna Nagar 3rd Avenue  
Proposed

# Pulla Avenue Existing and Proposed Design



Pulla Avenue  
Existing



Pulla Avenue  
Proposed

# Monegar Choultry (MC) road – Proposed Design



# MC ROAD STREETScape PROPOSAL



# MC road – Existing and Proposed Design

Proposed



Existing



# MC road – Existing and Proposed Design

Existing



Proposed



# MC road – Existing and Proposed Design

PROPOSAL I **MC ROAD** | ENTRY JUNCTION 2  
East West connectivity on Pedestrian street



**BSNL Junction**



# Khader Nawaz Khan (KNK) road – Existing and Proposed Design



Khader Nawaz Khan Road  
**Existing**

#Khudgambakam @i066



Khader Nawaz Khan Road  
**Proposed**

#Khudgambakam @i066

# III. Comprehensive Integrated Parking

## Objective

To develop a comprehensive integrated parking management for GCC area to ensure **elimination of haphazard parking** in order to improve traffic movement, safer roads, lesser congestion and offer road space for free vehicular movement



# Comprehensive Integrated Parking

SI No	Zone	Project location
1	1	Tiruvottiyur Municipality Vanigavalagam Building
2	1	Tiruvottiyur Municipality Dispensary Complex
3	8	Pulla Avenue Old complex
4	8	EVR Road Complex – opp. to Ega Theatre
5	9	RA Puram complex
6	9	C.P Ramasamy Road complex
7	10	Dr. Nair Road Old Complex
8	10	GCC Zone -10 office
9	11	GCC Zone – 11 office
10	13	Indira Nagar shopping complex

# Comprehensive Integrated Parking

- ❑ Parking plus Commercial complex, if viable
- ❑ Implementation planned through Public Private Partnership (PPP) model
- ❑ Proper enforcement would be ensured for on-street parking within the influence area of the parking complex

**Thank You**