




# PALLAVARAM – ADDRESSING CONNECTIVITY ISSUES

PLANNING LAST MILE CONNECTIVITY



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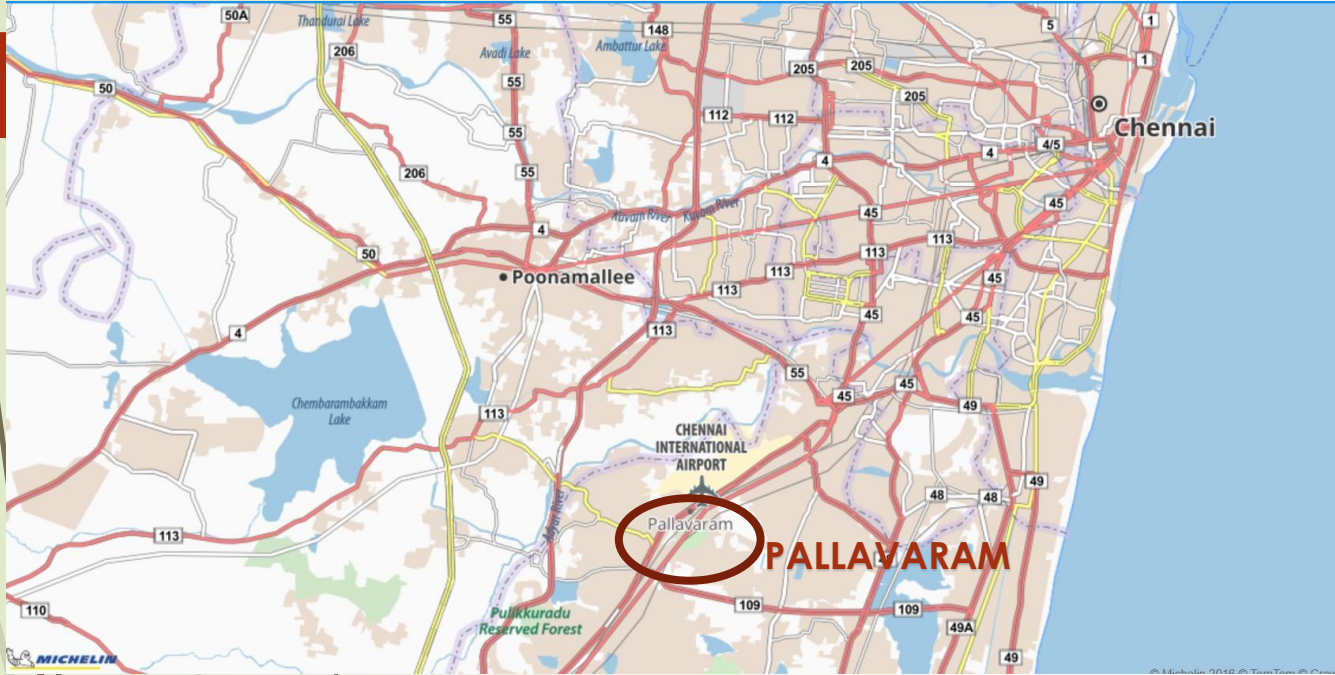
# CHENNAI METROPOLITAN AREA

1.	Chennai metropolitan Area	1189 sqkm
2.	Population (2011)	86.54 lakhs
3.	Growth rate	2.08 (decadal)
4.	Major corridors (radially spread)	<ol style="list-style-type: none"> <li>1. NH5 – towards red hills – Vijaywada</li> <li>2. NH 205 – towards Avadi – Arakonam</li> <li>3. NH4 – towards Sriperumbudur – Bangalore</li> <li>4. NH45 – towards Tambaram – Tiruchy</li> </ol>
5.	Major radial ring roads	<ol style="list-style-type: none"> <li>1. Inner Ring Road</li> <li>2. Outer Ring Road</li> <li>3. Chennai By pass road</li> </ol>
6.	Existing Public transport system	Bus, sub urban rail system, Metro Rail system
7.	Vehicular Registration (as on 2018)	55.7 lakhs
8.	Public transport Modal Share	28.2% (Bus + Rail)
9.	Average Trip length	9.9km
10.	Length of Roads	6010 km(5623 km – Interior roads and 387.35km Bus Route Roads)





# STUDY AREA – PALLAVARAM



- Located in the southern neighborhood on the GST Road (@ 25km from CBD)
- Spread over an area of 18 sqkm
- Proximity to Chennai International Airport (3.3kms)
- Existing Landuse – Mixed Residential, Residential, Institutional and Commercial

S.No	Parameters	Values
1.	Population (2011) (2026)	2.68 lakhs 3.98 lakhs
2.	Adminsitration	Pallavaram Municipality (42wards)
3.	Length of roads	252 km
4.	Transit modes	1. Sub urban railway 2. Bus
5.	Bus terminus	Kilkattalai Hasthinapuram
6.	Bus Shelters	Six
7.	Major Corridors	1. MMRD scheme 200 foot road 2. GST Road
8.	Arterial Roads	1. Old Trunk Road 2. Dharga Road

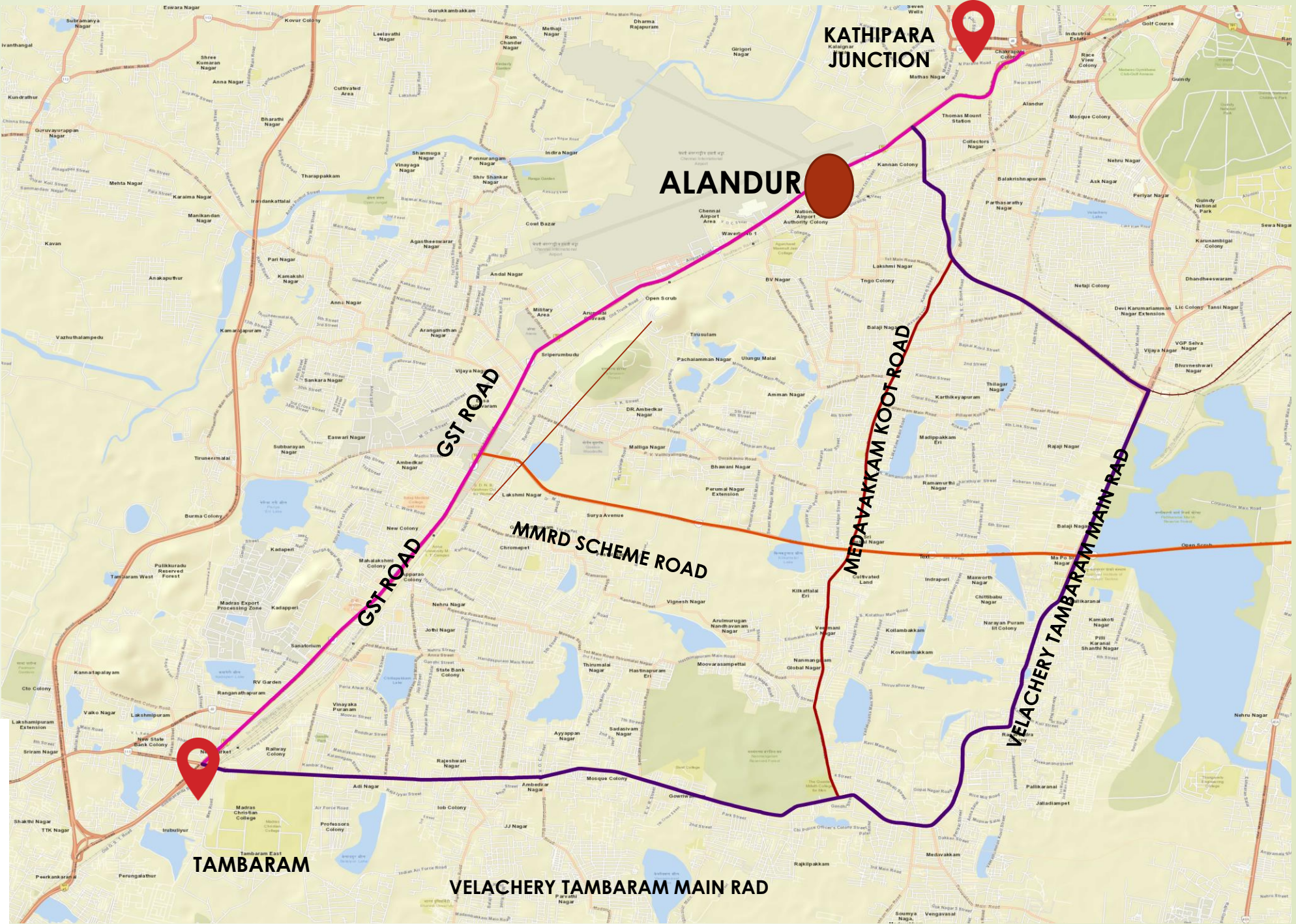


# STUDY CORRIDOR



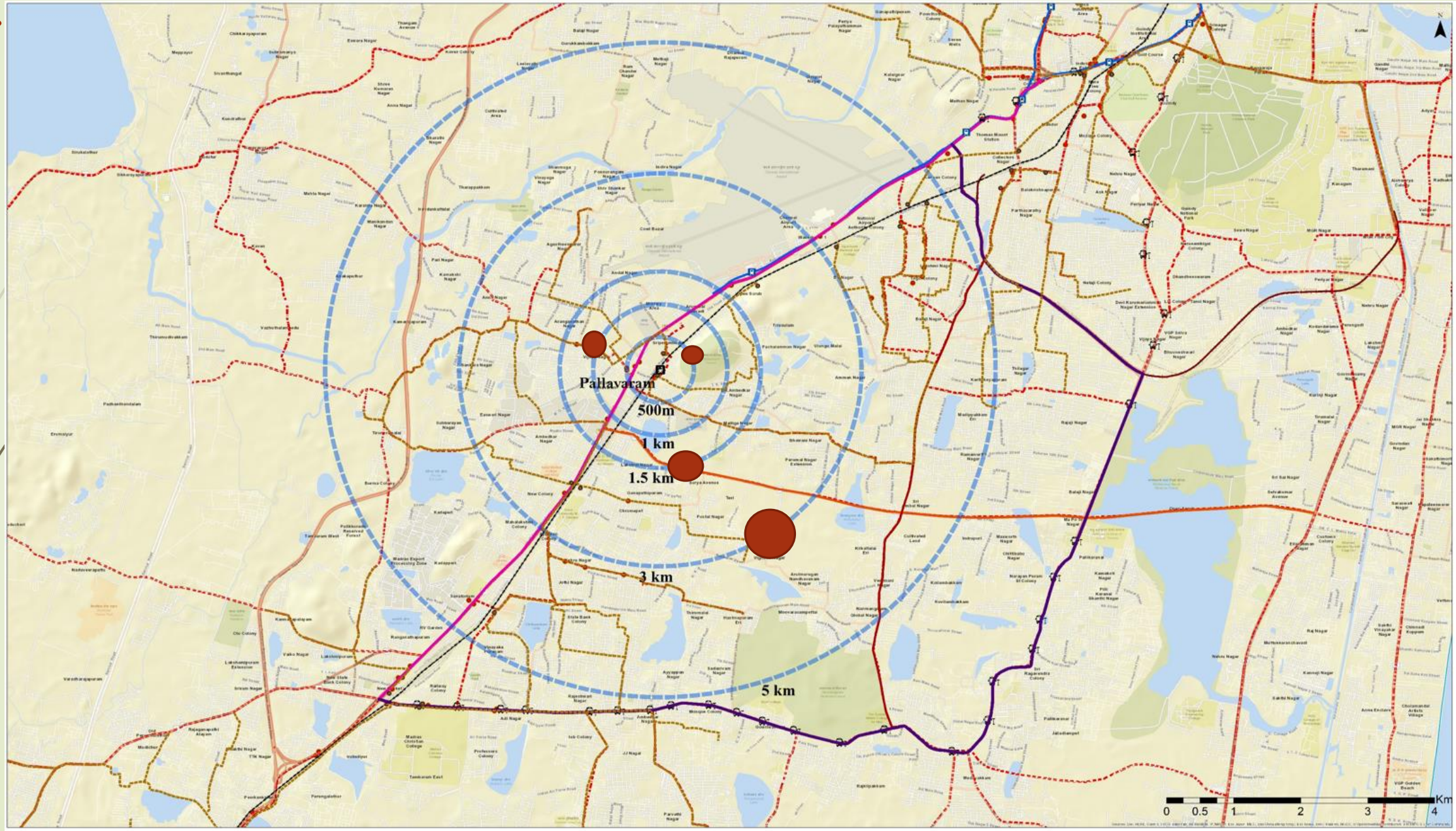
## Legend

- Velachery Tambaram Main Road
- GST Road
- Velachery Tambaram Main Road
- MMRD Scheme Road
- Medavakkam Koot Road





# DELIENATION OF THE STUDY AREA





# DELIENATION OF THE STUDY AREA

## 0.5 km

- Major commercial centers along the GST road like Saravana stores, Friday sandhai market, bus stop
- Upcoming commercial centers
- Existing Major Institution
- Proximity to the Airport
- HIGH vehicular and pedestrian traffic congestion due to the presence of various modes of transport.

## 1.5 km

1. Leather and tanning industries
2. Sub urban railway station
3. Residential developments upto first and second floor for students and workers
4. Existence of mixed landuse attracting mixed traffic

## 1.0 km

- Major Hospitals
- Ancient Temples
- Office spaces for the industries within the industrial area

## 3.0 km and above

1. Supported by good road network
2. Up coming residential developments
3. Nearer to the IT corridor , Velachery – Tambaram road and the 200 feet radial road

# TRIP GENERATORS IN THE STUDY AREA

## 0.5 km

1. Saravana stores,
2. Friday sandhai market
3. Bus stop
4. commercials

## 1.5 km

1. Residential developments
2. Leather
3. Tanning industries
4. Sub urban railway station

## 1.0 km

1. Leather industries
2. Tanning industries
3. Office spaces
4. Light industrial area

## 3.0 km

1. Institutions

## 3.0 km and above

IT industries and residential developments



# About the sub urban rail network

[Details](#) [Edit](#)



[Entry# 849522-0](#)

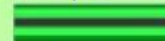
[Details](#) [Edit](#)



[Entry# 2130374-0](#)

PV/Pallavaram (4 PFs)

பல்லாவரம் பல்லாவரம்



Track: Quadruple Electric-Line

Railway Station Rd, Arumalai Chavadi, Pallavaram

State: **Tamil Nadu**

[add/change address](#)

Elevation: **24 m above sea level**

Zone: **SR/Southern** Division: **MGR Chennai**

No Recent News for PV/Pallavaram

[Nearby Stations in the News](#)

[Chennai Meenambakkam Airport/MAA](#): 4 km

Type of Station: **Regular**

Number of Platforms: **4**

Number of Halting Trains: **3**

Number of Originating Trains: **0**

Number of Terminating Trains: **0**

Rating: **3.2/5** (22 votes)

**cleanliness** - average (3)

**porters/escalators** - poor (2)

**food** - average (3)

**transportation** - good (3)

**lodging** - good (2)

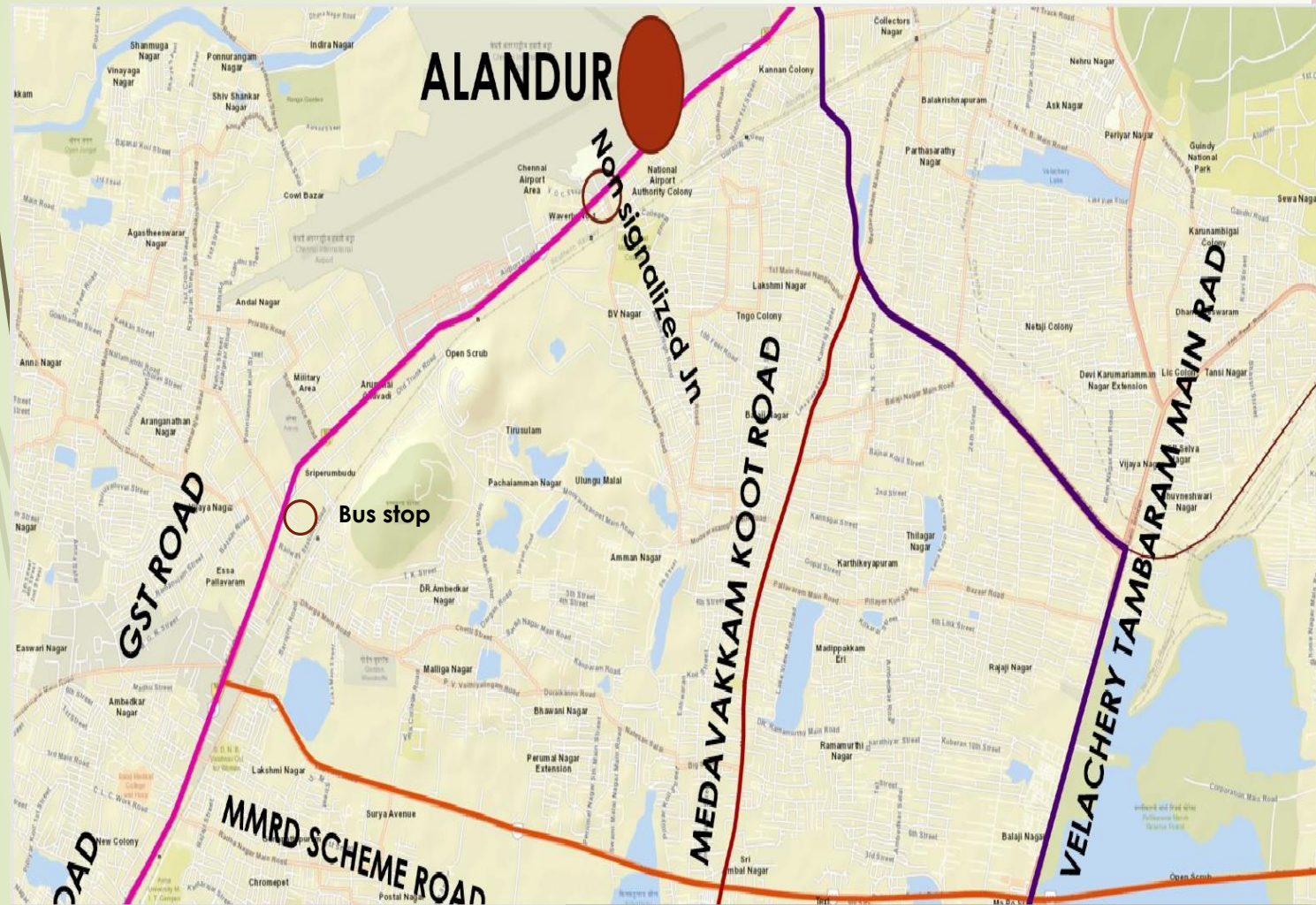
**railfanning** - good (3)

**sightseeing** - good (3)

**safety** - good (3)

Scroll to  
Bottom

# BUS TRANSIT



Length of Bus Route Roads		252 km	
Bus terminus		Kilkattalai Hasthinapuram	
Bus Shelters		Six	
No of Buses to Pallavaram		2 - 3	
No of buses passing through Pallavaram		More than 100 buses	
Right of Way		Min	Max
		27m	67m
Peak Hour Peak Direction - Ridership		230	
Frequency of buses per hour (2016)		1	

Source:Implementation of BRTS in Chennai





# OTHER MODES OF TRANSIT ARE

## **1. MINI BUSES – 16 & 20 seater available**

- No bus stop at specific locations
- Very less frequency
- Observed at very few locations

## **2. IPT – 3 SEATER & 7 SEATER**

- GST road and other arterial roads
- 7 seater only on GST ROAD, 200 feet radial road

# IPT AND MINI BUS





# OPPORTUNITIES AND CONSTRAINTS

## ➤ Opportunities

- The percentage of people accessing railway stations by walk, and by cycles is likely to increase due to existing landuses surrounding the station.
- The density of population and employment within Pallavaram area is expected to grow in the up coming years, and much of the anticipated development mostly within walking and biking distance of the stations.
- As the bus stop is being located abutting an Arterial Road, access to the Bus terminus through public transit and feeder connectivity is viable
- The Two wheleers, mini bus and the three wheelers are likely to use the sub arterial roads running within and establish last mile connectivity for the residential and industrial area around
- The Pallavaram flyover would organize the traffic coming from the Airport and moving towards down the southern arm
- More buses at the Bus Terminus, at lowest fares with increased frequency
- Improvement in the IPT and feeder services within an influence area of 3km

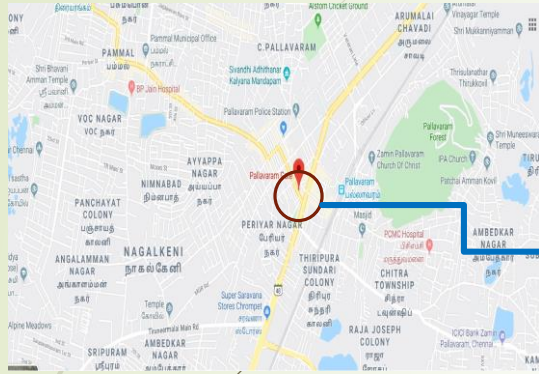
## CONSTRAINTS

- As the Station is located in already well developed thickly built area, possibility of widening the approach roads to station is very difficult
- As area of Station is less, more area for parking of *IPT, Cycle, Two Wheeler, Four Wheeler and Bus-bays and space for drop zone could not be provided to the comfortable level*
- *No Pedestrian signalling* for the pedestrians walking from, GST Road with Kundrathur road *Tirusulam to the Pallavaram Bus terminus*, the Pallavaram bus depot, Friday Santhai, Railway station and junction of GST road with 200 feet radial road does not have *adequate foot path is not available* due to encroachment by hawkers and poor maintenance
- *Unorganized parking* is also observed around the Railway station , Bus Terminus stretch. No organized parking stands for IPT and Two wheelers near the station.
- No designated bus bays



# CONSTRAINTS contd..... AT JUNCTIONS

## 1. GST ROAD AND KUNDRATHUR ROAD



- No pedestrian signaling
- Inadequate foot path width due to the encroachment of hawkers
- Insufficient road width at the terminus due to the construction of Pallavaram flyover
- Unorganised parking of vehicles
- Reduced carriageway
- Poor maintenance of footpaths



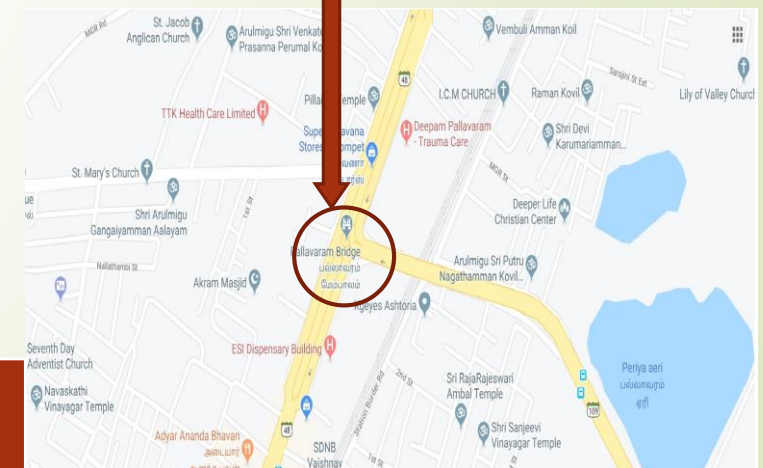
Non signalized Junction

**Non signalized  
Junction**

**GST Road with  
IRR extension**

## 2. GST ROAD & 200' RADIAL ROAD

- Improper crossing of vehicles
- Inadequate foot path width due to the encroachment of hawkers
- unorganised parking of vehicles due to commercial establishments
- Missing of pedestrian signaling
- Less carriageway width



# ANALYSIS

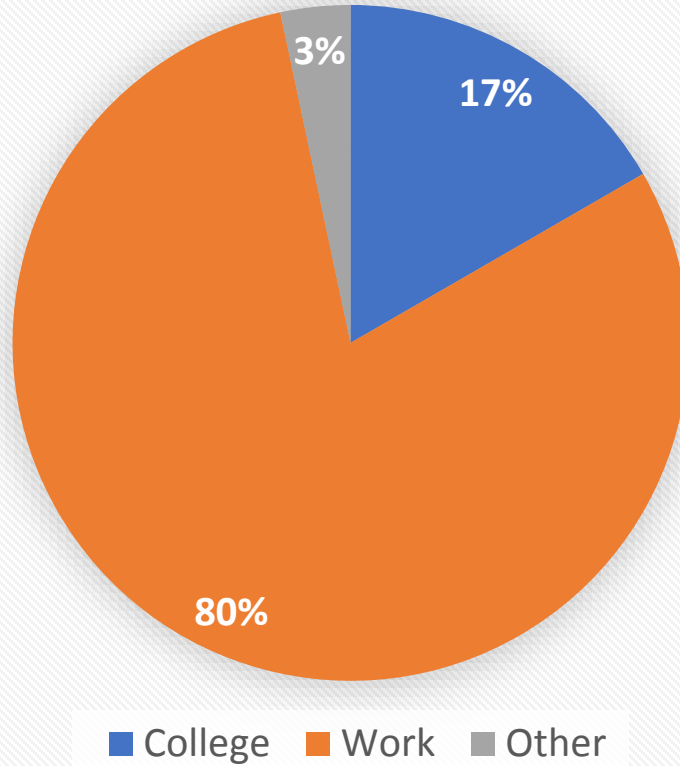
## Origin Destination Survey

Location	Observation
<b>Alandur Metro station</b>	IT employees from the IRR change the mode of transport to reach Pallavaram. Only transit available is Metro shuttle service.
<b>Meenambakkam Metro station</b>	Guindy Industrial estate, IT Employees from the parallel IT corridors, change their mode of private transport
<b>Tirusulam metro station</b>	Employees working in the Leather and tanning industry board their industry buses to reach
<b>Pallavaram Bus stop</b>	Very less frequency of buses to reach the institutions within 3km radius. Have to change another IPT mode to reach school/college
<b>Sub urban railway station</b>	Only few autos are available, and 2 – 3 mini buses pass through this place. To reach the main arterial road, people have to walk more than 500m distance



# Origin Destination Survey contd

**Purpose of Travel**



## OBSERVATIONS

- Only 1 direct bus is available which is less in numbers.
- During peak hours, the travel time is about 2 hours due to traffic congestion.
- No meter used in IPT
- Water stagnation in road during rainy season.
- Should walk nearly to reach bus stand.

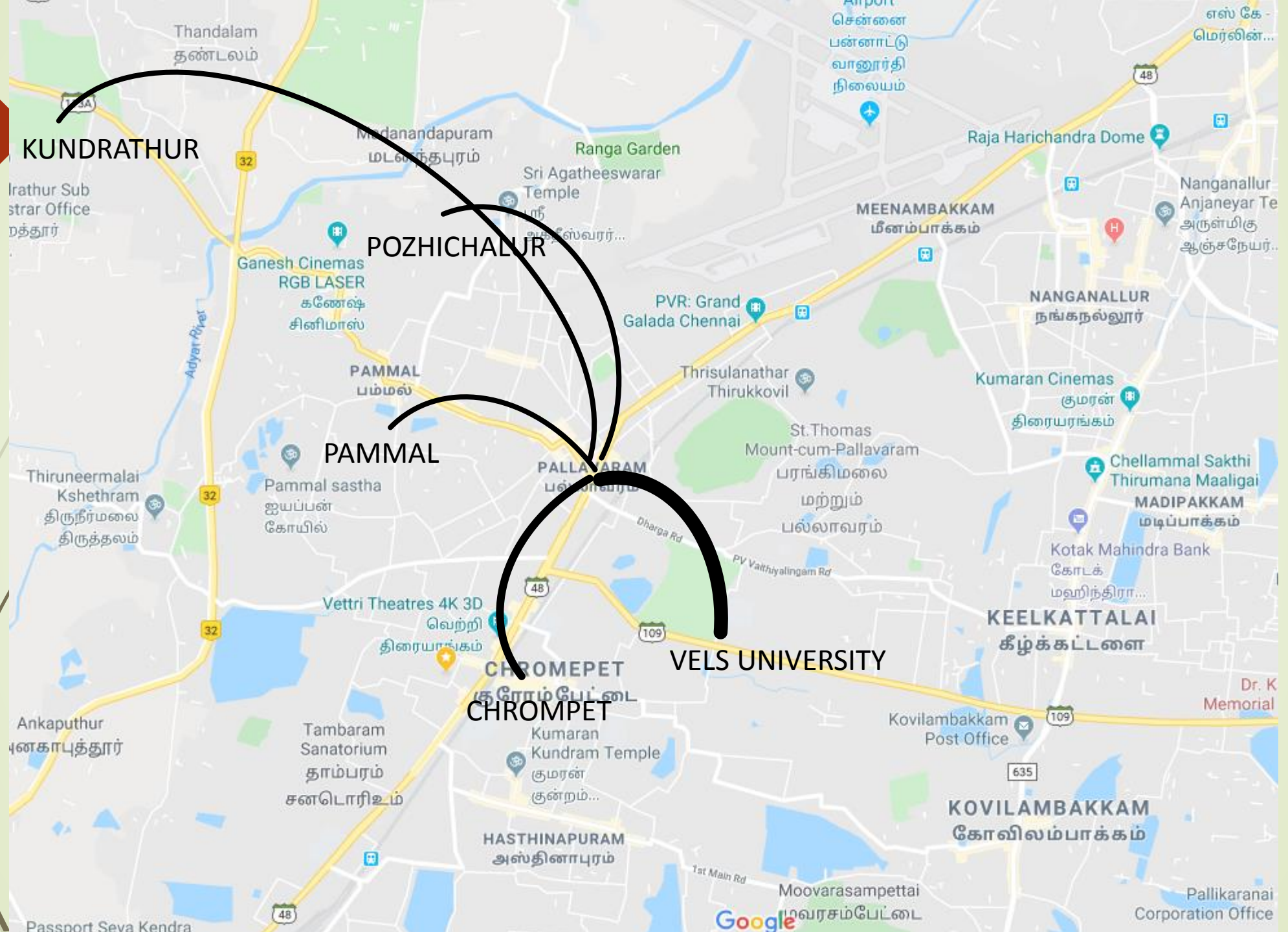
KUNDRATHUR

POZHICHALUR

PAMMAL

CHROMPET

VELS UNIVERSITY





# RECOMMENDATION AND PROPOSAL AGENCY WISE

S.No:	Recommendation/proposal	Agency/Department of implementation	Remarks
1.	Extension of Metro rail alignment along the GST Road	Chennai Metro Rail	DPR under preparation
2.	GRID of ROADS Identification of missing links to the nearest arterial road	Chennai Metropolitan Development Authority	Proposal under progress
3.	Feeder services network	Metropolitatan Transport Corporation	Proposal under implementation
4.	Junction Iprovements & Traffic signages improvement	Pallavaram Municipality	TO be implemented
5.	Pedestrian infrastructure and pedestrian signaling improvement	Pallavaram Municipality	To be implemented
6.	Increased Frequency of Buses and bus fleet	Metropolitan Transport corporation	To be implemented

# Chennai Metro to connect Airport with Kilambakkam

**Sunitha Sekar**

CHENNAI, NOVEMBER 12, 2019 00:45 IST



## **Work on 15.3-km stretch expected to start in 2021; to be built on GST Road**

Thousands of commuters from areas such as Tambaram and Chromepet to the city can rejoice as Chennai Metro will soon start work on a connection from Airport to Kilambakkam. Construction is expected to get under way in 2021, according to sources.

The sources told *The Hindu* that Chennai Metro has already submitted the feasibility report for this stretch and will now start work on the detailed project report. “It will take about 10-12 months to finish the report, after which the project can begin immediately because there is a lot of demand in that stretch,” a source said.

The Airport to Kilambakkam stretch will be 15.3-km long, with around 13 stations. This will be built entirely on GST Road as an elevated stretch, the sources said. “The reason for choosing to build it as an elevated stretch is, it is faster to construct than an underground stretch and cheaper too,” he added



# RECOMMENDATION AND PROPOSALS

## PROPOSAL - I

Route No:	Feeder route	Route length in km	Forward trips per day	Peak hour trips	Peak hour peak direction trips
PV1	Pallavaram railway station to pozhichalur bus terminus	4.2	8323	832	583
PV2	Pallavaram bus stand – Shankar nagar bus stop	4.1	8125	813	569
PV3	Pallavaram railway station - Tiruneermalai	5.8	11494	1149	805
PV4	Pallavaram Railway station – Keel kattalai bus stand	4.2	2587	259	181

### TRIPS ASSIGNED TO FEEDER ROUTES

Route No	Route Length	Forward tripd per day	Peak hour trips	PHPDT
PV1	4.2	8233	832	583
PV2	4.1	8125	813	569
PV3	5.8	11494	1149	805
PV4	4.2	2587	259	181

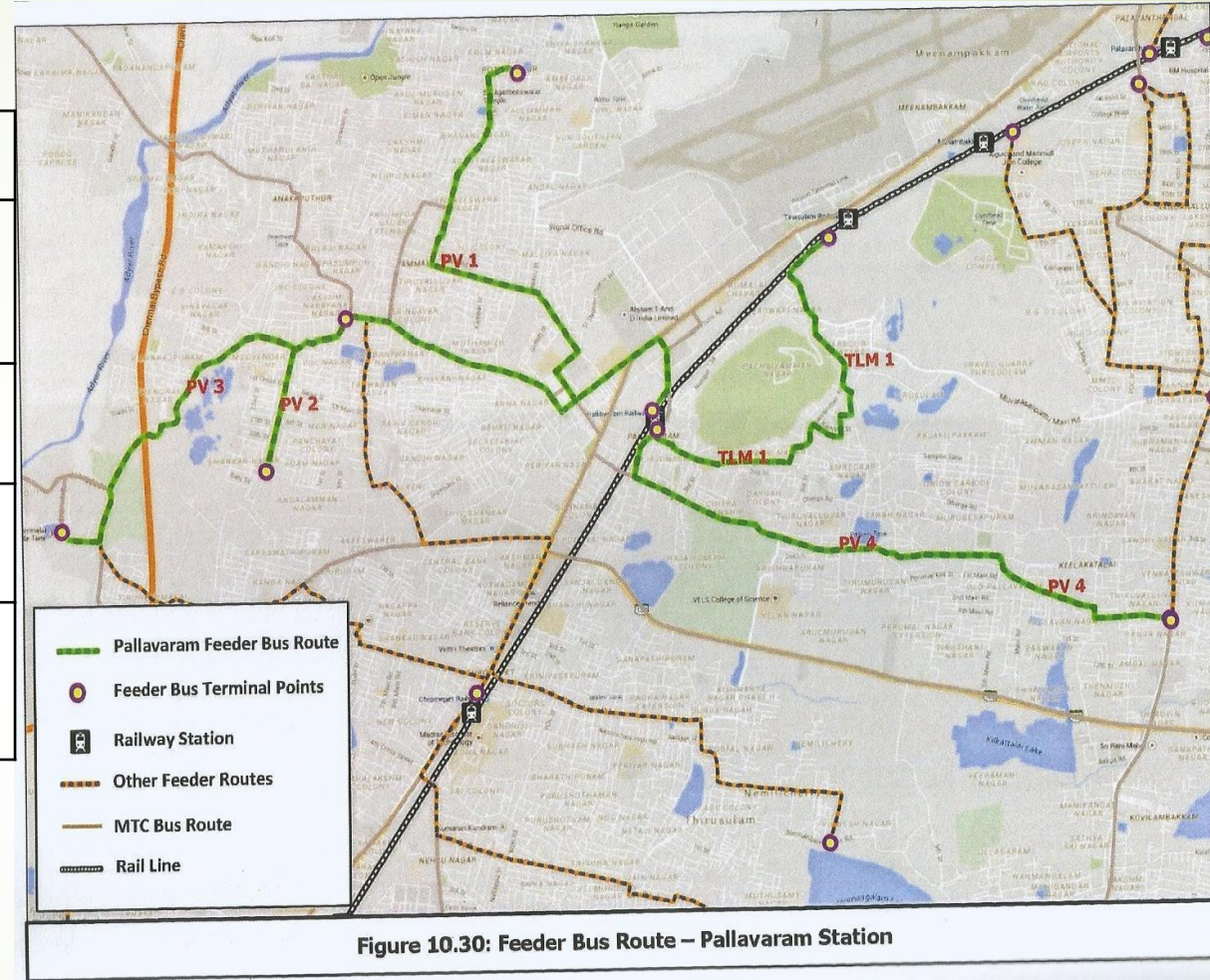


Figure 10.30: Feeder Bus Route – Pallavaram Station

Station Influence Area – Radius 5km – extends to an area of 23.14 sqkm

Population – 2,68,156 (2011 census)

Average Number of passengers – 35,684

# LONG TERM RECOMMENDATIONS

- ▶ Local bodies to be consulted on measures to improve road safety in their arena and to be involved in small- scale, adequately resourced local transport (walking/ cycling/public transport access) audits, improvement, and road safety schemes.
- ▶ Insertion of a suitable methodology and plan to alter streets in business with the Pedestrian Design Guide- lines: better quality street furniture, including tree shading, spaces for hawkers to provide road users with refreshments, spots to congregate, and require a breath away from traffic.
- ▶ First appearance of demand management schemes to promote usage of public transport, walking and cycling such as road pricing, stricter parking control, and taking out subsidies on fuel and parking.
- ▶ As investment in public transport, walking and cycling facilities grow, with greater efforts to explain policy changes to the public through a series of carefully targeted campaigns



# SHORT TERM RECOMMENDATIONS

## Integration with land-use planning

- Making public transit links first and then developing high-density, mixed land use areas around them, thereby reducing the need to move around, particularly by private vehicles

## ➡ Integration within and between different modes of conveyance

- **Physical Integration:** Facilitating direct, easy, convenient, and safe approach to public transport (providing secure, direct road crossings, treeshaded paths, refreshments, cycle and rickshaw parking, differently abled pavements and access levels).
- **Fare Integration:** Enabling the public transit user to pay only once for a journey involving different modes of transport.
- **Path Integration:** Facilitating logical interchange points where passengers are able to change from one vehicle or style to another conveniently and safely
- **Data Integration:** Enabling a 'one-stop-shop' for public transit users, bicyclists, and pedestrians to clear data on whatever journey they wish to transmit using these styles.
- **Institutional Integration:** Ensuring that different public transit providers see themselves as part of a network and offer connections to other types of transit, walking, and cycling for seamless connectivity.