CYBERABAD SCOOT-TO-WORK

Walk, scoot, ride to work

A street and bus plan to move people to IT corridor for work

Uma Mahesh Padisetty · Proposal · November 2026



THE PROBLEM

Today the street works for no one



No footpath

People walk in the traffic lane, between parked cars and moving autos.

The kerb is a car park

Cars, autos and two-wheelers fill the edge of the road.

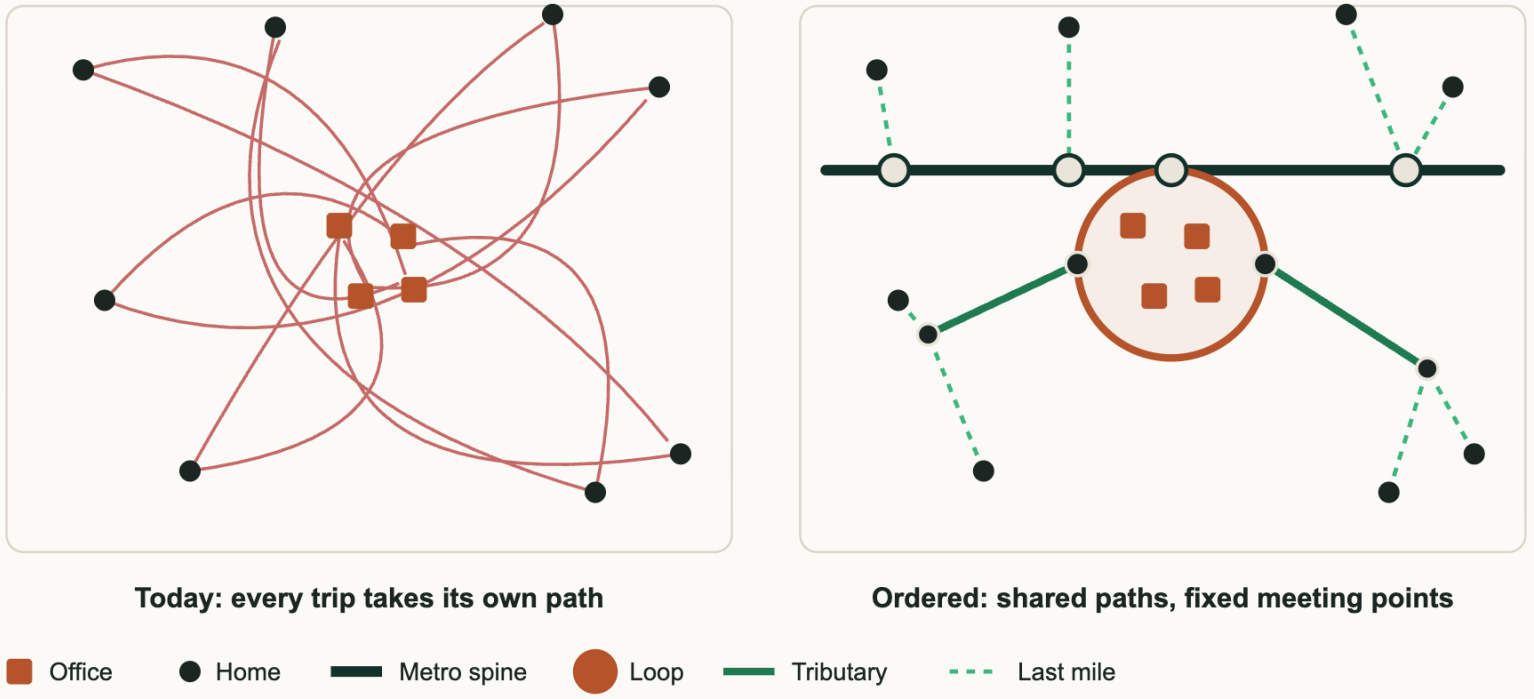
No room for buses or scooters

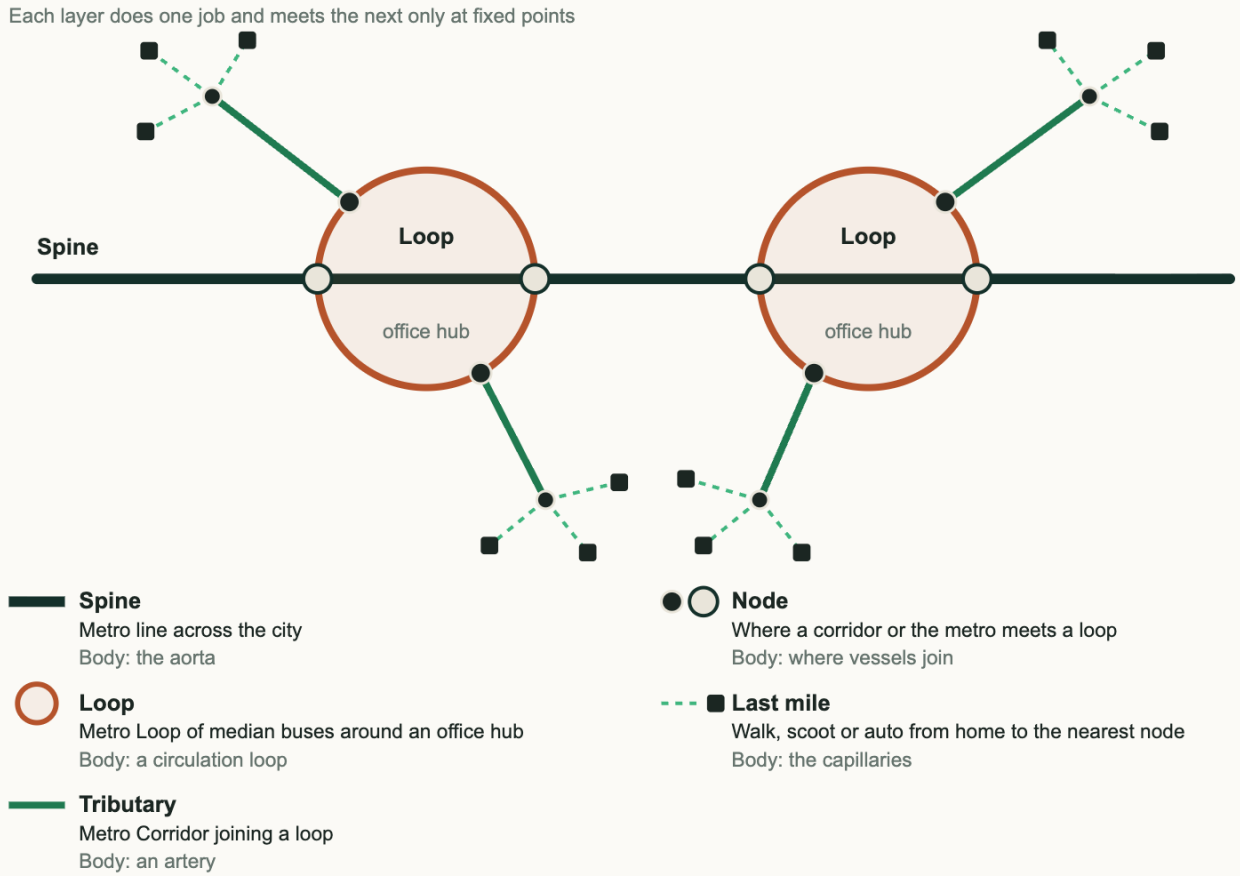
Three general lanes each way; the metro stops at Raidurg.

THE THEORY

Chaos is everything going in every direction

The same homes and offices, two ways of connecting them





THE PRINCIPLE

Loops and tributaries, like the body

Each layer does one job

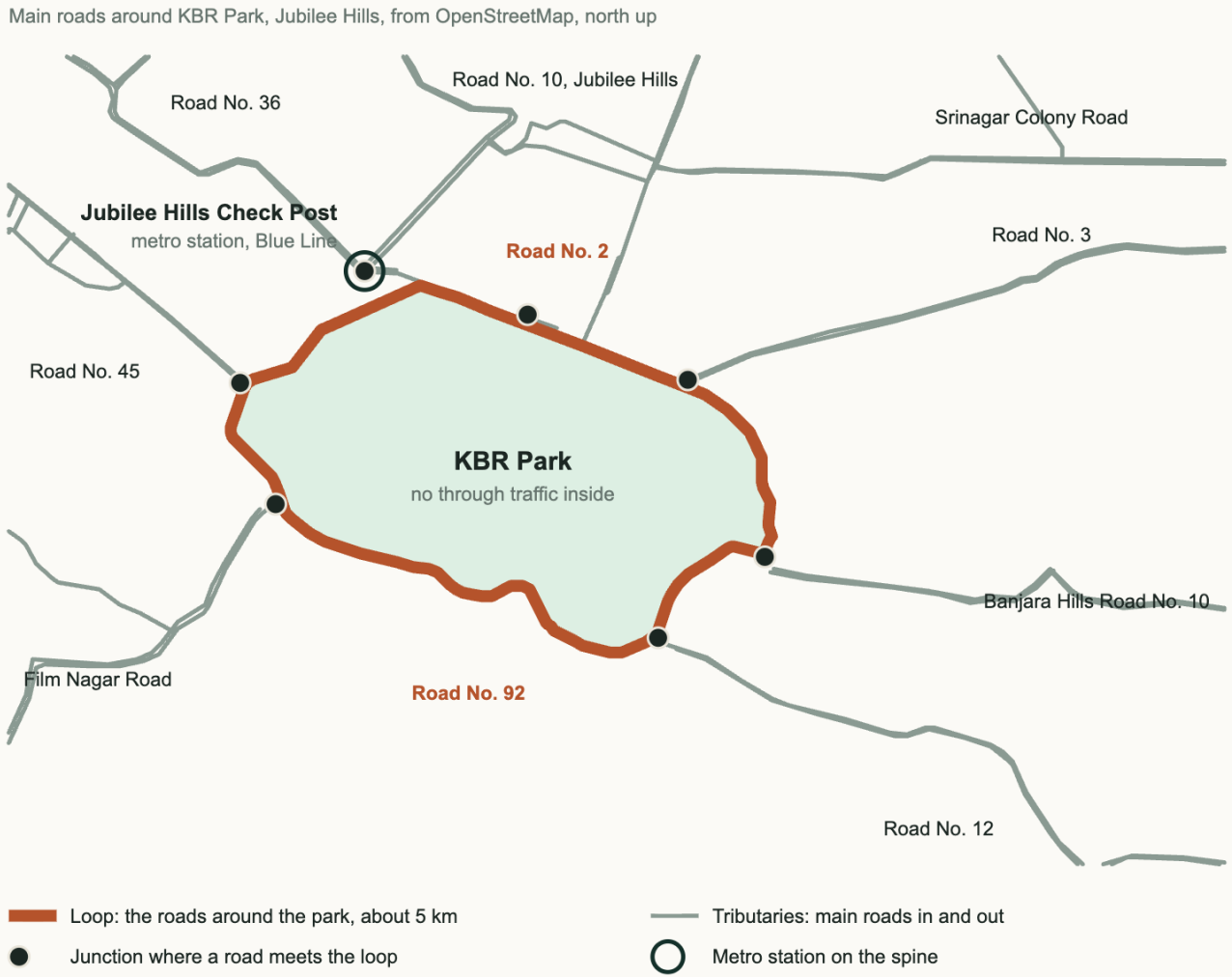
Spine, loop, tributary and capillary: the big vessels never serve a cell directly.

Layers meet at fixed points

Flow joins and leaves only at junctions, so nothing collides.

Every cell is reached

No cell is more than a capillary away from supply; no home more than 3–5 km from a node.



A LIVING EXAMPLE

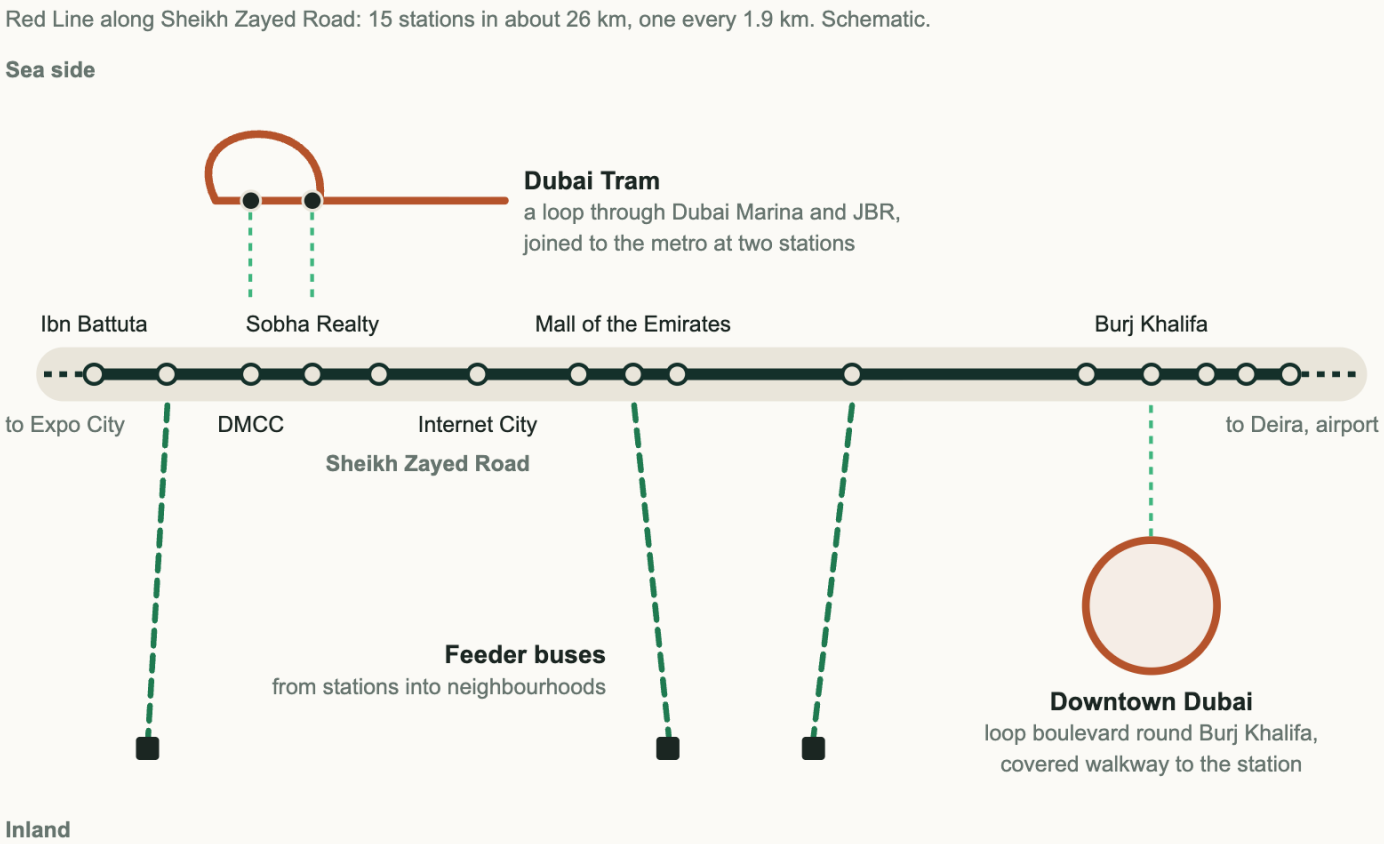
KBR Park already works as a loop

5 km one loop of roads round the park

~8 main roads join it at fixed junctions

0 roads cut across the middle

The lesson is the shape. KBR still jams at peak because every vehicle shares it; our loops give the median lane to buses only.



AT CITY SCALE

Dubai is built along one spine

The spine

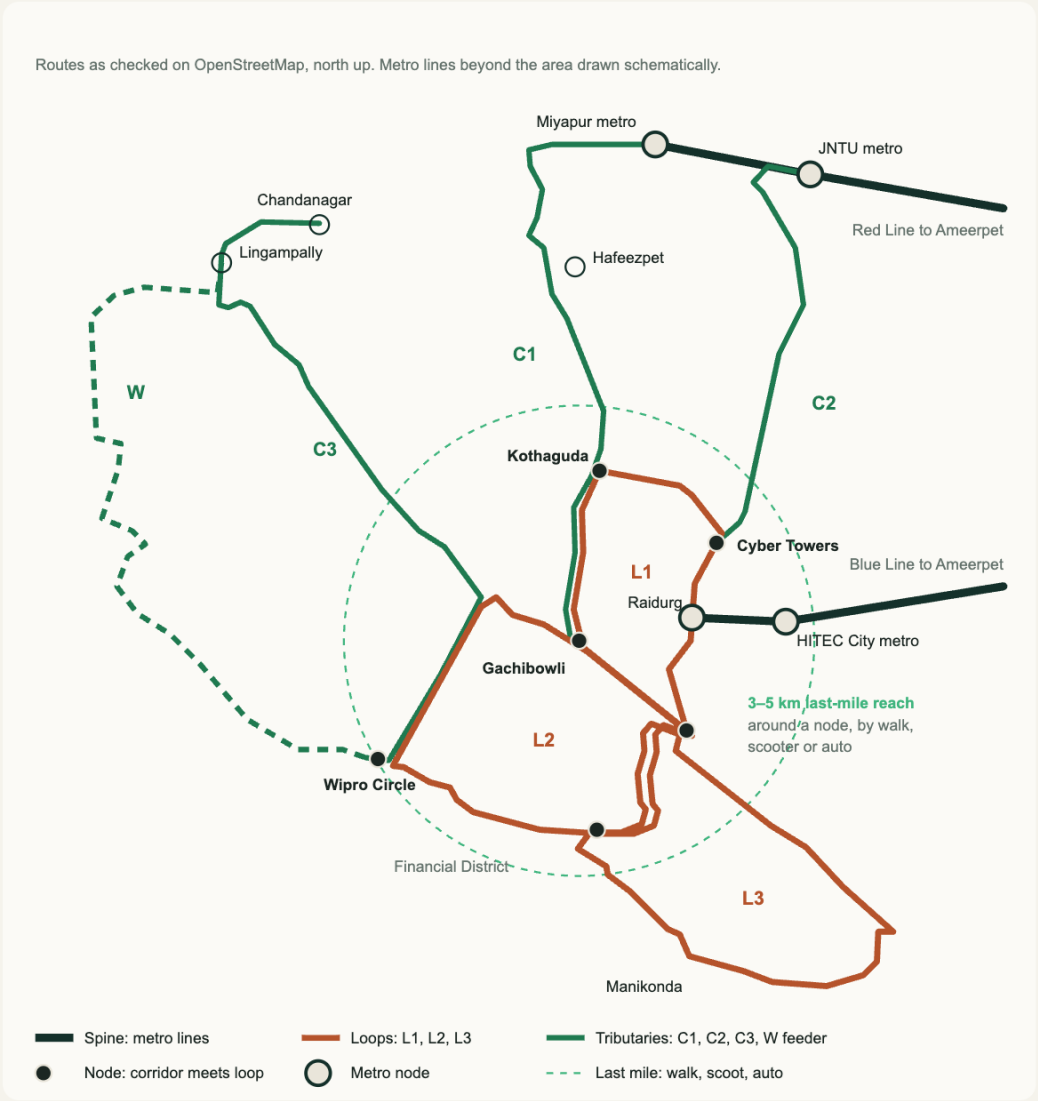
Red Line on Sheikh Zayed Road, a station every 1.9 km.

The loops

Tram through Dubai Marina; a boulevard round Downtown.

The tributaries

Feeder buses and covered walkways into every district.



THE MODEL IN CYBERABAD

Spine, loops, tributaries, last mile

Spine — Metro Red Line and Blue Line

Loops — Metro Loops L1, L2, L3 round each office hub

Tributaries — Metro Corridors C1, C2, C3 and the West feeder

Last mile — Walk, scoot or auto to one of ~110 Metro Nodes

THE IDEA

Walk / Scoot / Auto to the bus. Ride the bus to work.

01

Bus in the median

Three one-way loops and three two-way corridors, a bus every 5–8 minutes at peak.

02

Walk-and-scoot edge

A 1.5 m walkway, 2.0 m scooter lane and planted kerb on every bus road.

03

Home-to-station streets

Slow, safe residential streets within 3–5 km of every station.

04

One simple fare

₹10 - ₹20 on bus, ₹50 - ₹100 on auto one tap with the metro card.

THE IT CORRIDOR

Kothaguda: the same road, reimagined

Today



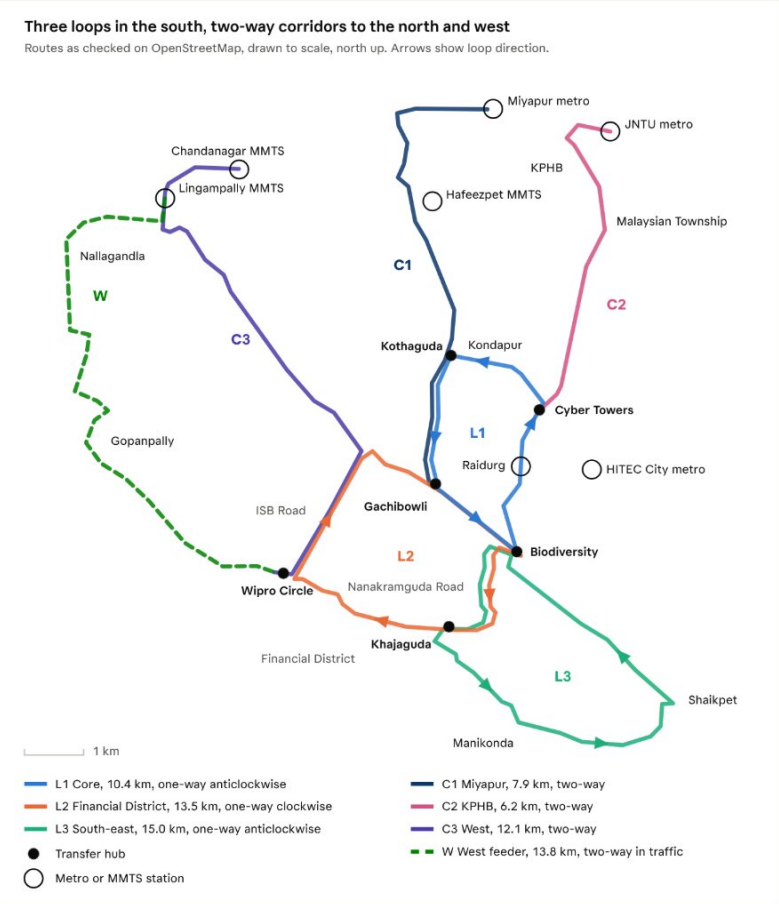
Reimagined



The kerbside parking strip becomes a walkway and scooter lane. The lane next to the flyover becomes the C1 bus lane, with stations between the piers in the deck’s shade.

THE BUS NETWORK

Seven routes, each checked on the map



3 one-way loops in the south, about 39 km, one median lane each

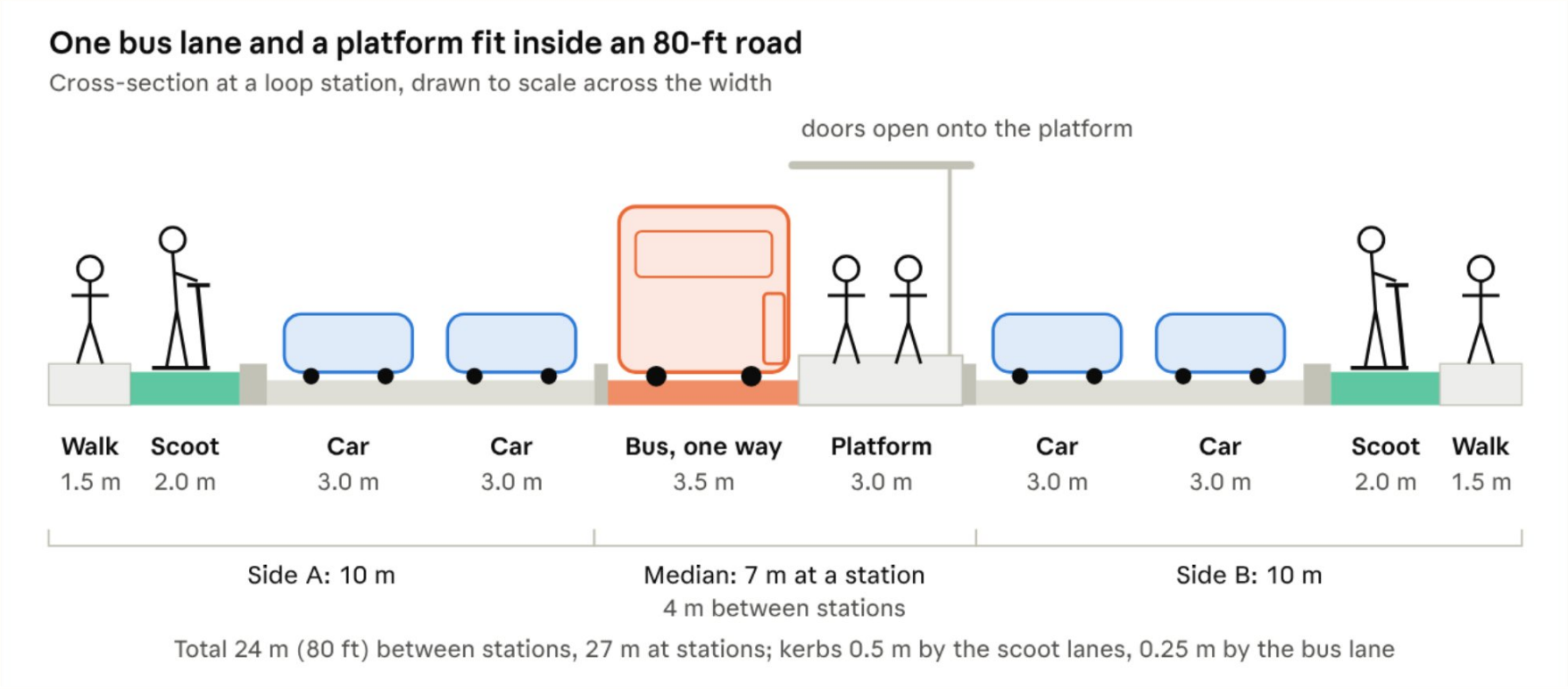
3 two-way corridors from Miyapur, KPHB and Chandanagar–Lingampally

1 West feeder, 14 km, in traffic with signal priority

73 electric buses, one every 5–8 minutes at peak

WHY LOOPS

One lane, one direction: it fits an 80-ft road



A one-way loop needs a 4 m median, not 7.6 m. Standard buses with left-side doors serve every platform.

RISK: CARS IN THE BUS LANE

Keep cars out with pits and AI cameras

Car-trap pits at every entry

- Pit wider than a car's track, narrower than a bus's
- Buses roll over it; car wheels drop in
- Bollards keep two-wheelers and autos away
- Red surface and warning signs before every pit

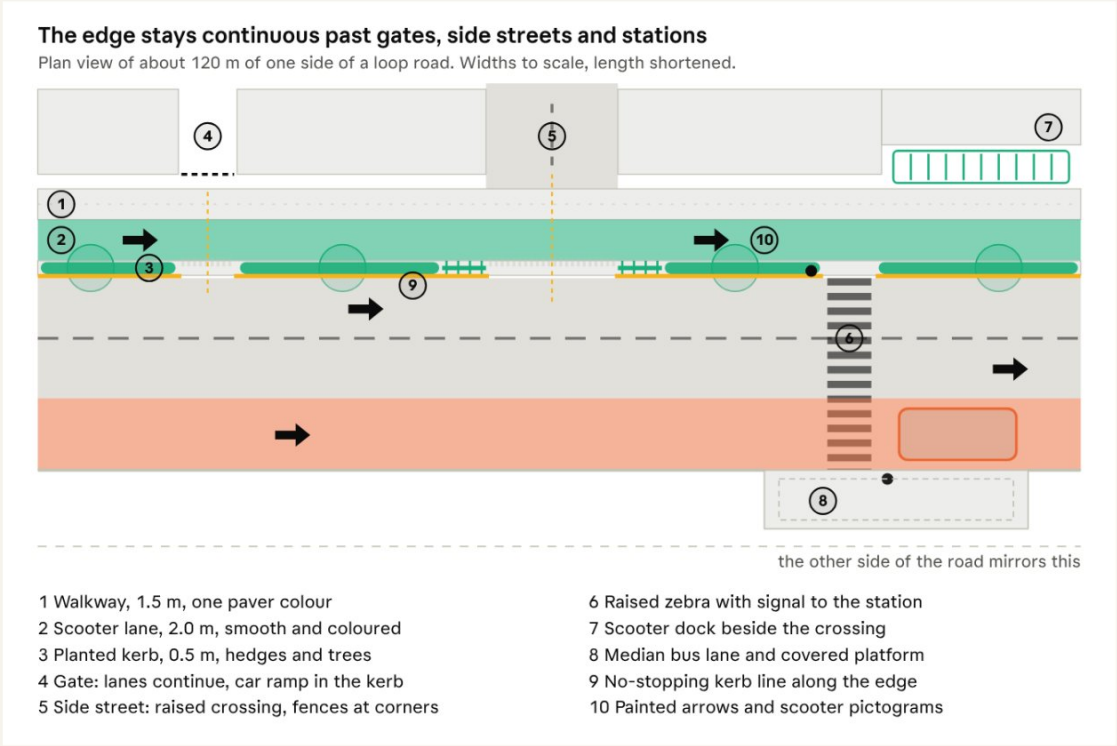
AI cameras, automatic fines

- Number-plate cameras every 300–500 m and on buses
- AI spots any vehicle in the lane, day and night
- E-challan sent through Cyberabad Traffic Police
- Fines rise with every repeat offence

The lane is bus-only all day; ambulances and fire engines may use it. Delhi's BRT was removed in 2016 partly because cars took over its lanes and enforcement was weak. Physical barriers and automatic fines from day one avoid that.

THE STREET EDGE

Every bus road gets a walk-and-scoot edge



No gaps
Walkway and lane cross gates and side streets at their own level

Nothing in the walkway
Poles, stalls and signboards go in the planted kerb

No stopping on the edge
A coloured kerb line, as in Tokyo

A dock at every crossing
Beside each crossing to a median station

Fenced corners
Set-back crossings, as in Tokyo and Dubai

RISK: NARROW ROADS

Where the road is narrower, cars give way first

Road width	Bus	Scooters	Walkway	Cars
90 ft and over	Two-way median lanes	2.0 m kerbed lane	1.5–2.0 m	Two lanes each way
80–90 ft	One-way median lane on loops; two-way on corridors	2.0 m kerbed lane	1.5 m	Two each way on loops, one on corridors
60–80 ft	Kerbside bus lane in the direction of the peak	1.5 m painted lane, Tokyo style	1.5 m	One lane each way
Short pinch points under 60 ft	Shared lane with a bus-first signal	Shared at 20 km/h, pictograms	1.5 m	One lane, or a one-way pair

Three rules: the walkway is never cut; a car lane goes before the bus lane or scooter lane; buying land is the last resort. Every stretch is measured in 2027 before design.

THE FIRST MILE

Home to station: Mayuri Nagar Main Road

Today



Reimagined



Every home within 3–5 km of a station, about 10–15 minutes by scooter or auto, gets one signed access route: 15 km/h on lanes, 20 km/h on colony roads, 30 km/h on collector roads with a scooter track.

THE STANDING E-SCOOTER

A light, slow scooter for the last 3–5 km



Example: Max X1 foldable e-scooter, about ₹26,000

Less than a year of two-wheeler fuel and parking.

The vehicle

Standing e-scooter, top speed 25 km/h, slowed to 10 km/h near stations by GPS; lights, bell and indicators.

Where it rides

Scooter lanes and slow residential streets, never walkways or bus-road car lanes; parked only in docks.

How people get one

Shared fleets from 2–3 licensed operators, 1,500 in Phase 1 and 8,000–10,000 at full scale, or buy your own.

What the state must do

Notify a legal e-scooter category, license operators with fleet caps, set riders at 16 and over with helmets.

Combined bus-and-scooter monthly pass: [₹__], to be agreed.

THE METRO BUS

Board like Dubai: tap in, no conductor



Dubai: tap the nol card at the reader by the door

One card for metro, bus and tram. A trip needs a minimum balance of AED 7.5 on the card.

One card, one tap

Metro card at a reader by every door.
No cash, no tickets, no conductor.

₹10 a bus, ₹20 a journey

Any buses within 60 minutes; ₹40 daily cap, ₹900 monthly pass, same fare for all.

Minimum balance to board

As in Dubai, a card needs [₹20] to start a trip, so nobody rides on an empty card.

Clean, calm, watched

Electric and air-conditioned, CCTV on board, no eating or smoking, live arrival screens.

EVERYONE IS SERVED

Under an hour and ₹3,000 for riders; ₹1,000 a day for autos

35–55 min

Door to door

Walk, scoot or auto to a node; a bus every 5–8 minutes; one change at most.

₹1,700–2,000

A rider’s month

Bus pass plus own scooter or shared auto. With the metro too, a joint pass keeps it under ₹3,000.

₹1,000+

An auto driver’s day

20 private rides at ₹50–100, or 14 shared runs at ₹25 a seat, from a stand at the node.

Autos are registered to a zone, tracked by GPS and stand at nodes. They serve the last mile and keep off the loop and corridor roads, so the metro gets a consistent, controlled flow of people.

THE FARE

One tap, one simple fare

₹10

Each bus you board

Tap the validator by the door. No tap-out.

₹20

Most for one journey

Any number of buses within 60 minutes.

₹40

Daily cap

The rest of the day rides free.

₹900

Monthly pass

Unlimited rides, less than running a two-wheeler.

Same fare for every rider. Pay with the Hyderabad Metro card, a RuPay NCMC card or an app QR ticket; no cash on buses. Roving inspectors, ₹500 penalty for riding without a tap. An alternative of ₹15 a bus and ₹30 a journey is evaluated on the break-even slide.

RUNNING COST

About ₹66.5 per bus-km for electric buses



Bus and battery, financed over 12 years	Drivers	Electricity	Upkeep	Operator overhead	City's costs

73

Electric buses

66 in service each day

12,500

Bus-km a day

About 190 km per bus

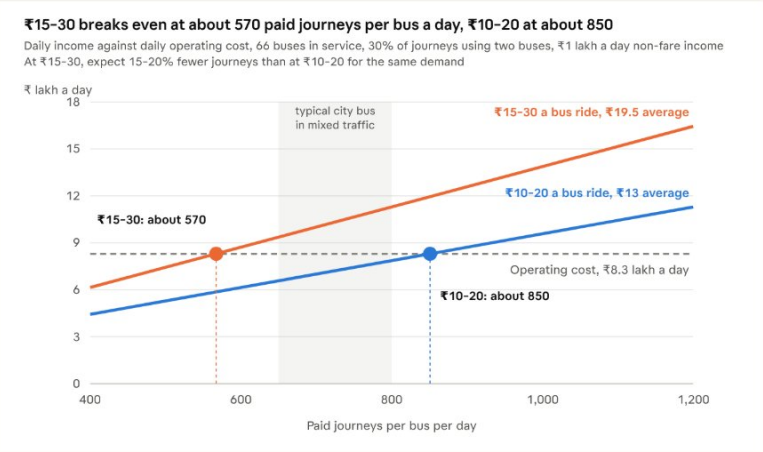
₹30 cr

A year to run

About ₹8.3 lakh a day

BREAK-EVEN: TWO FARE OPTIONS

Two fares, two break-even points



	₹10–20	₹15–30
Average a journey	₹13	₹19.50
Break-even a bus	850	570
Low year	–₹8 cr	–₹3 to –₹4 cr
Expected year	break-even	+₹5 to +₹7 cr
Strong year	+₹8 cr	+₹15 to +₹17 cr
Commuter, a month	₹440–880	₹660–1,320
Riders	baseline	15–20% fewer

₹10–20 keeps a worker's month under ₹3,000 but needs the city to fund a slow first year; ₹15–30 pays for itself sooner but costs riders more and carries fewer of them.

STREET COST

Streets to standard: about ₹1,400 crore

Part of the network	Road length	₹ crore
Loop roads L1, L2, L3: full rebuild, one-way bus lane	About 32 km	580–800
Corridor roads C1, C2, C3: full rebuild, two-way bus lanes	About 21 km	420–570
West feeder: walkways and painted lane	About 14 km	40–70
Home-to-station routes: quick kit, busiest upgraded	About 60 km	130–220
Total at 2026 rates		1,170–1,660

₹21–23 cr

Per km of bus road, with drains and cable ducts

₹470 cr

Phase 1: L1 and L2 roads and their routes

₹970 cr

Cheaper option keeping existing drains

CAPITAL

₹115 crore of capital, no buses to buy

Item	Quantity	₹ crore
Depots with overnight charging	2	40
Median stations: open platform, shade roof, arrival screens	About 90	45
Fare system: on-bus validators, handheld readers, back office, app	Network	8
Fast chargers at route ends	4	6
Kerbside stops on the West feeder	About 20	3
Control room and live tracking	1	3
Contingency, about 10%		10
Total		115

Buses come through the per-km operating contract. Bus lanes and walk-and-scoot edges are in the street cost on the previous slide.

ROLLOUT

Start with two loops, then grow

2027

Survey and design

Road widths on every route, a ridership survey with IT employers, a market check with operators.

2027–28

Phase 1: L1 and L2

24 km, 20 buses, about 35 stations, and the walk-and-scoot edge on the same roads.

2028–29

Phase 2: C1, C2, C3, L3

41 km and 40 buses, if Phase 1 carries 25,000 trips a day.

2030 onwards

Phase 3: West feeder

13 buses, and a Kokapet Neopolis loop as that area grows.

Home-to-station routes open with each phase, around its stations: Kondapur, Kothaguda, Gachibowli, Raidurg and Khajaguda first.

KEY BENEFITS

What the city gets

Serves working people and autos

A sub-₹3,000 month for riders and steady last-mile income for drivers.

Reliable, comfortable transport

Buses every 5–8 minutes in their own lane; door to door in under an hour.

Cleaner, quieter air

Electric buses, scooters and autos; paved, planted kerbs instead of dusty verges.

Healthier people

A daily walk or scoot at each end of the trip.

Less chaos, smoother movement

Each layer keeps to its job; people change mode only at nodes.

Predictable for the metro

A consistent, controlled flow of riders and fare income to plan on.

THE ASK

Ten decisions to start in 2027

Approve the model

1. **The network:** loops L1 and L2 first, then C1–C3 and L3; about 110 Metro Nodes.
2. **The street standard:** a walk-and-scoot edge on every bus road; home-to-station routes within 3–5 km.
3. **One Metro, one card:** a joint metro and bus pass that keeps a worker's month under ₹3,000.
4. **Fare and contract:** choose ₹10–20 or ₹15–30 a bus ride; a per-km electric bus contract.

Set the rules

5. **Bus-only lanes from day one:** car-trap pits, AI cameras and e-challans through Cyberabad Traffic Police.
6. **Autos on the branches:** zone permits, GPS tracking and parking at every node and neighbourhood, agreed with unions.
7. **A legal e-scooter category,** with licensed shared-fleet operators and fleet caps.

Fund and organise

8. **Fund Phase 1:** ₹470 crore for streets, opening with a ₹30 crore quick kit, and ₹115 crore for transit; seek PM e-Bus Sewa and depot land.
9. **One lead agency:** GHMC, HMDA, TGIIC, TGSRTC, HMRL and Traffic Police on one programme board.
10. **Start the 2027 work:** road-width and ridership surveys, an operator check; Phase 2 at 25,000 trips a day.

Whole programme about ₹1,600 crore over five years. All figures are planning approximations.