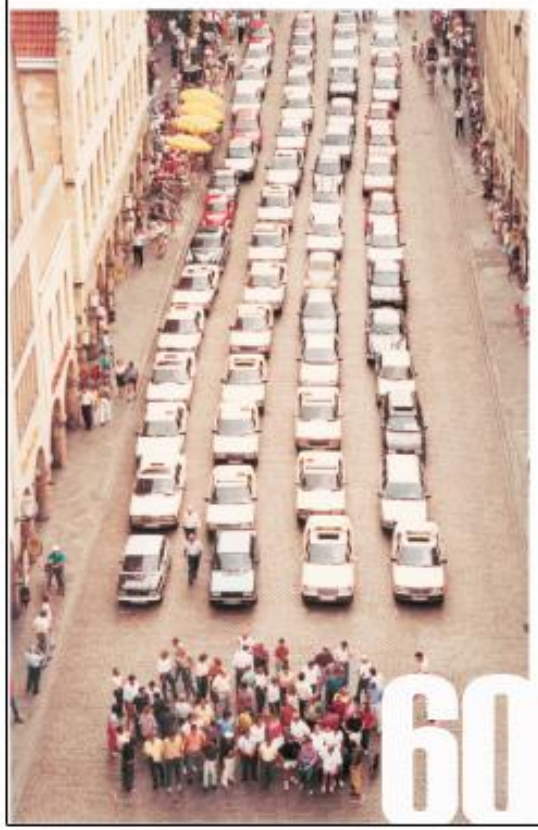
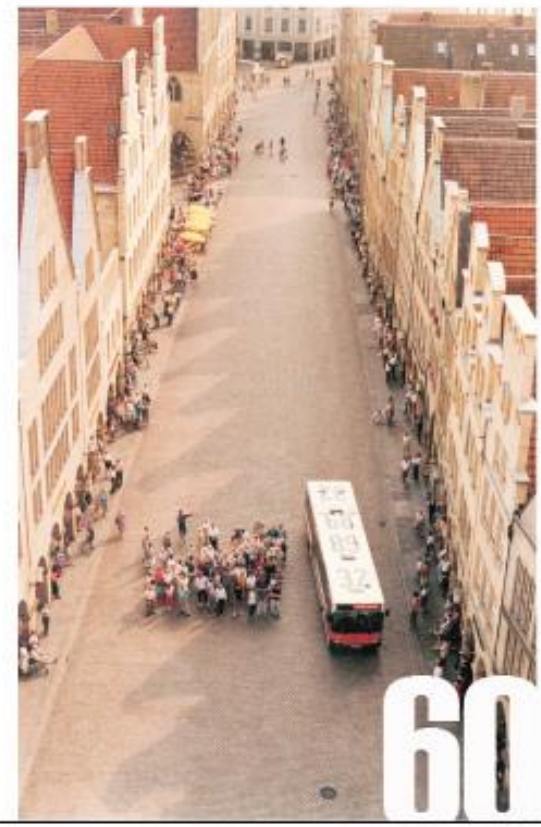
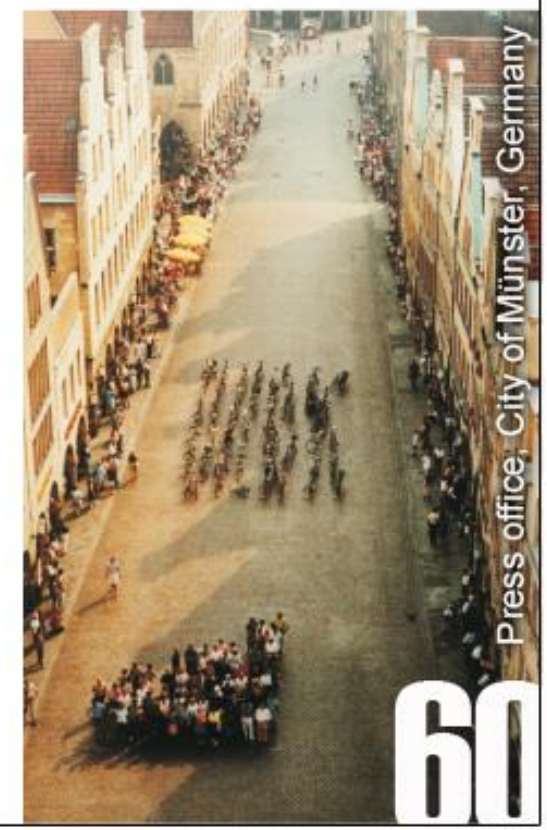
Urban Transportation

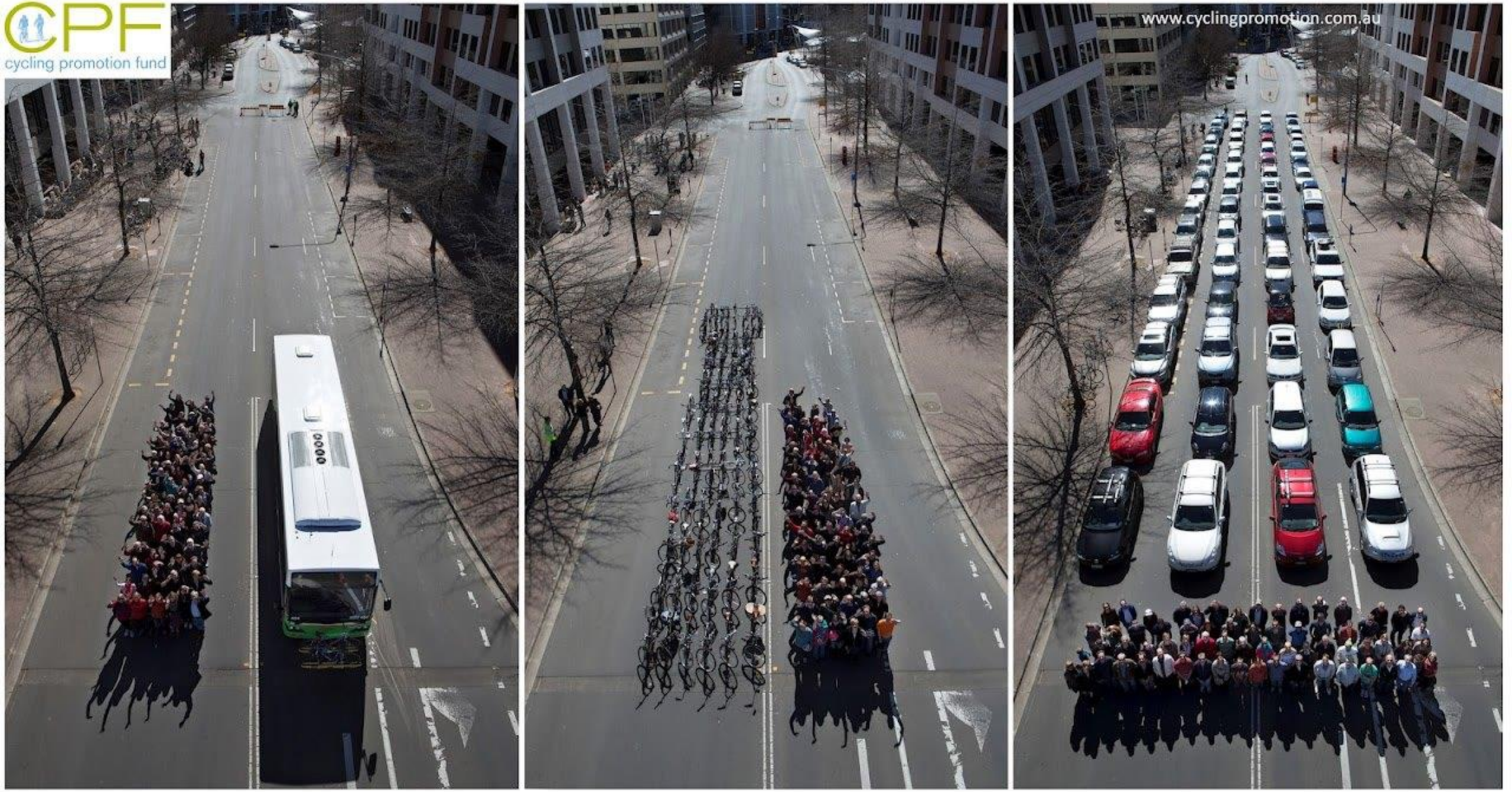
STREET SPACE FOR 60 PEOPLE







Press office, City of Münster, Germany


CPF
cycling promotion fund
www.cyclingpromotion.com.au

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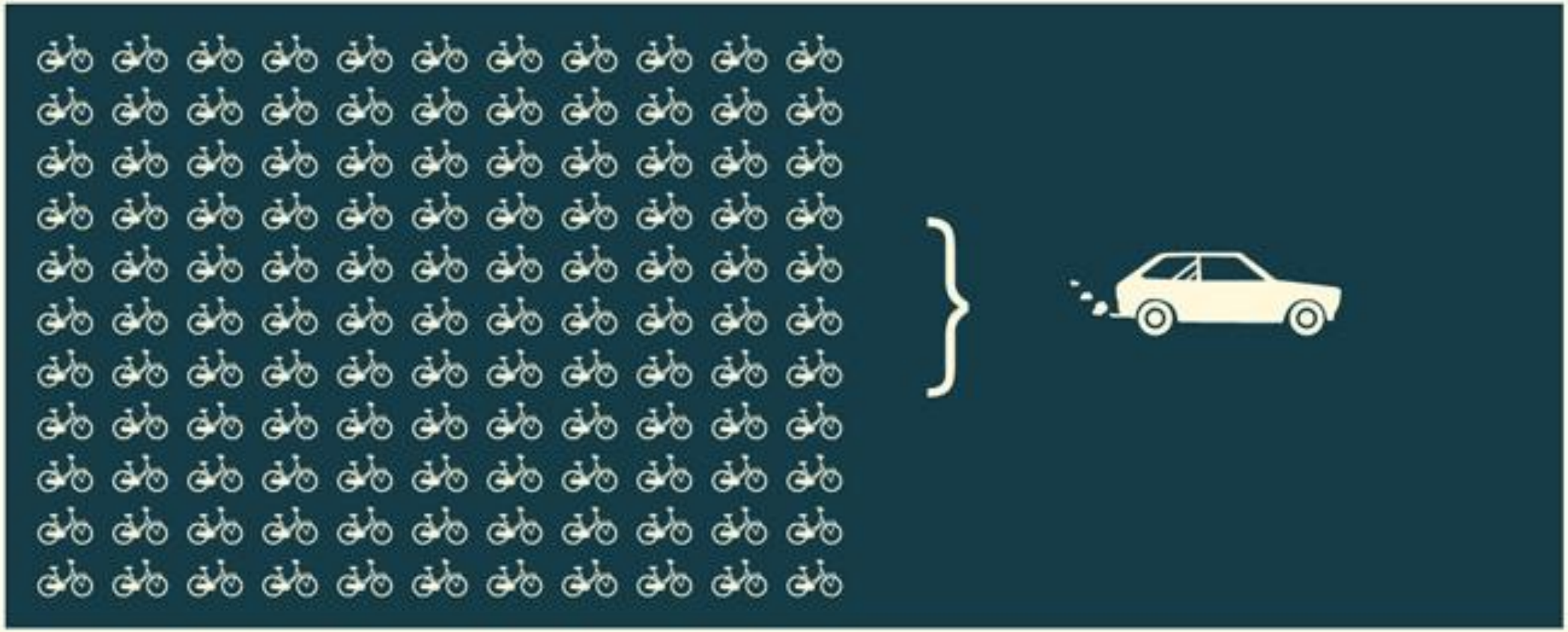
AUTOGENERAL S.A.

60 Αυτοκίνητα VS 1 Λεωφορείο VS 60 Ποδήλατα



The energy and resources required when building one medium-sized car could produce 100 bicycles.

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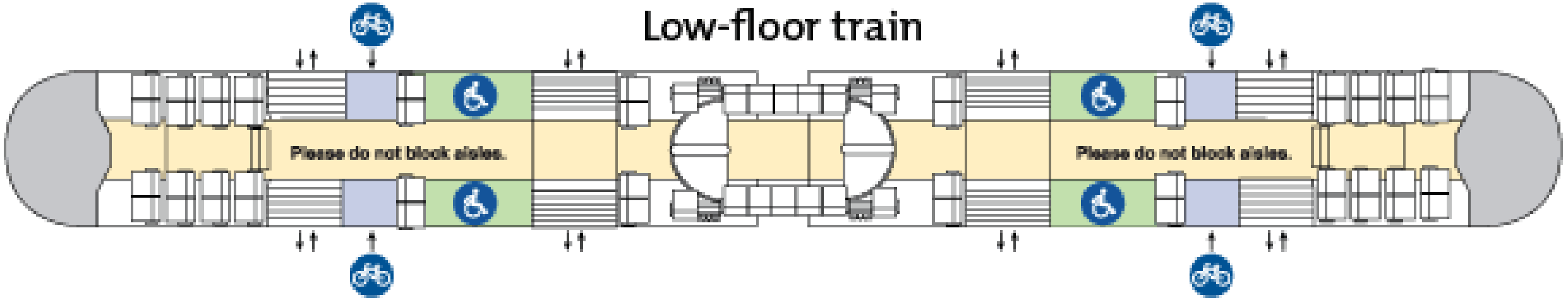
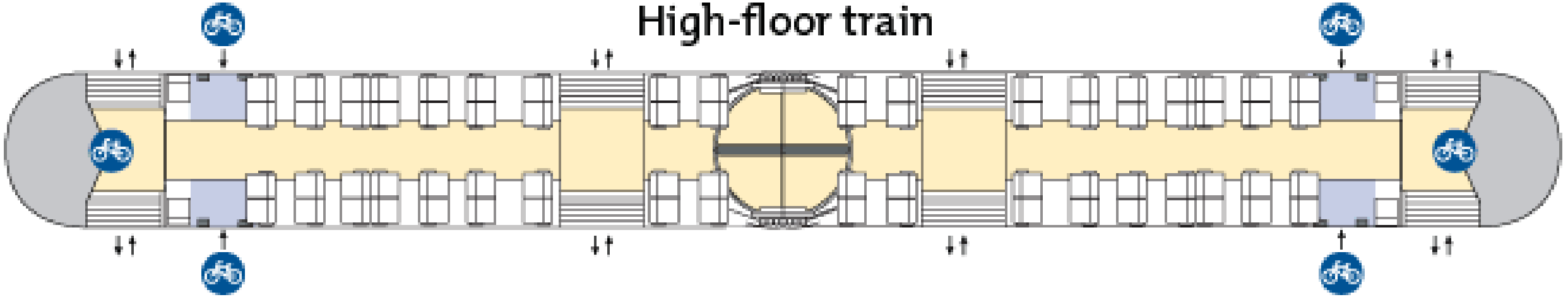
Figure 4: (Left) Bicyclists using the NMT corridor (Right) The bicycle renting kiosk

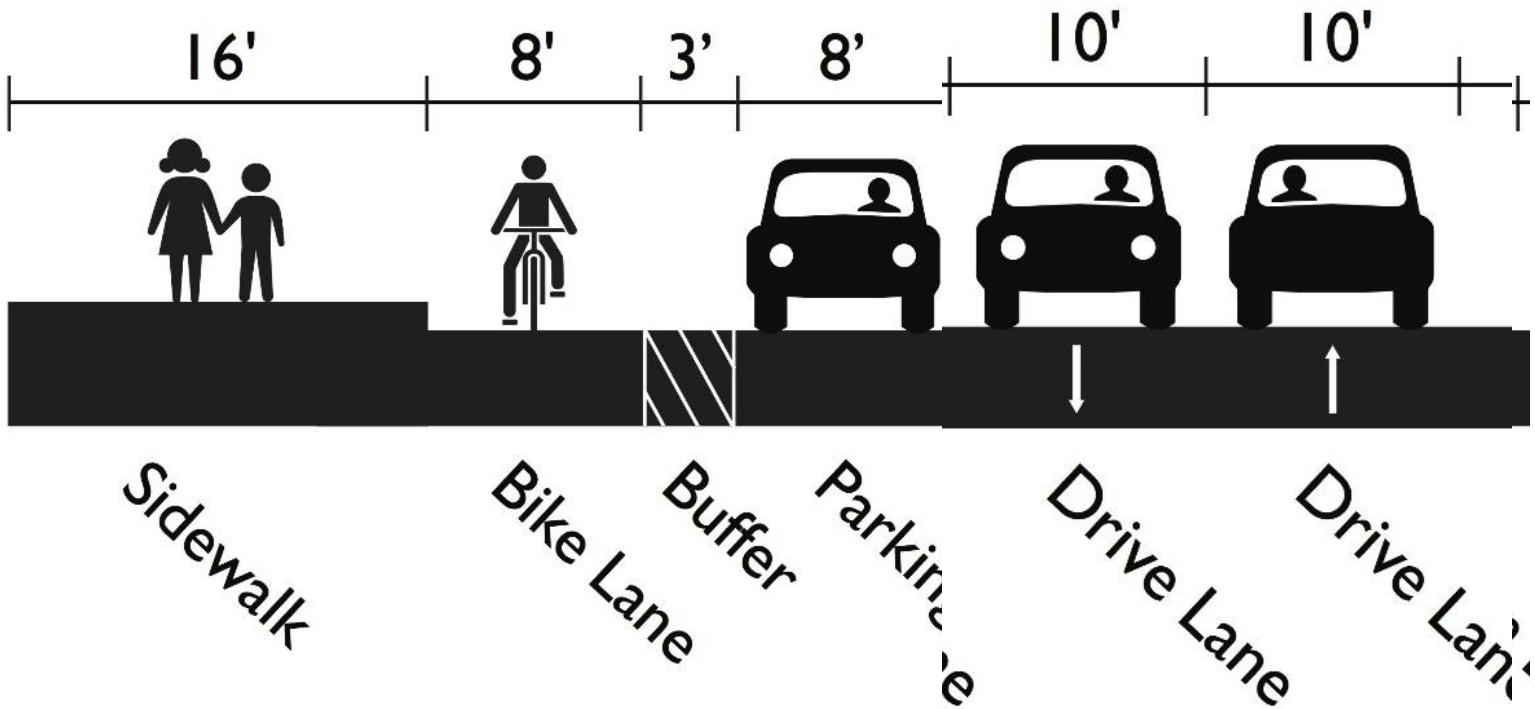
Low-floor train



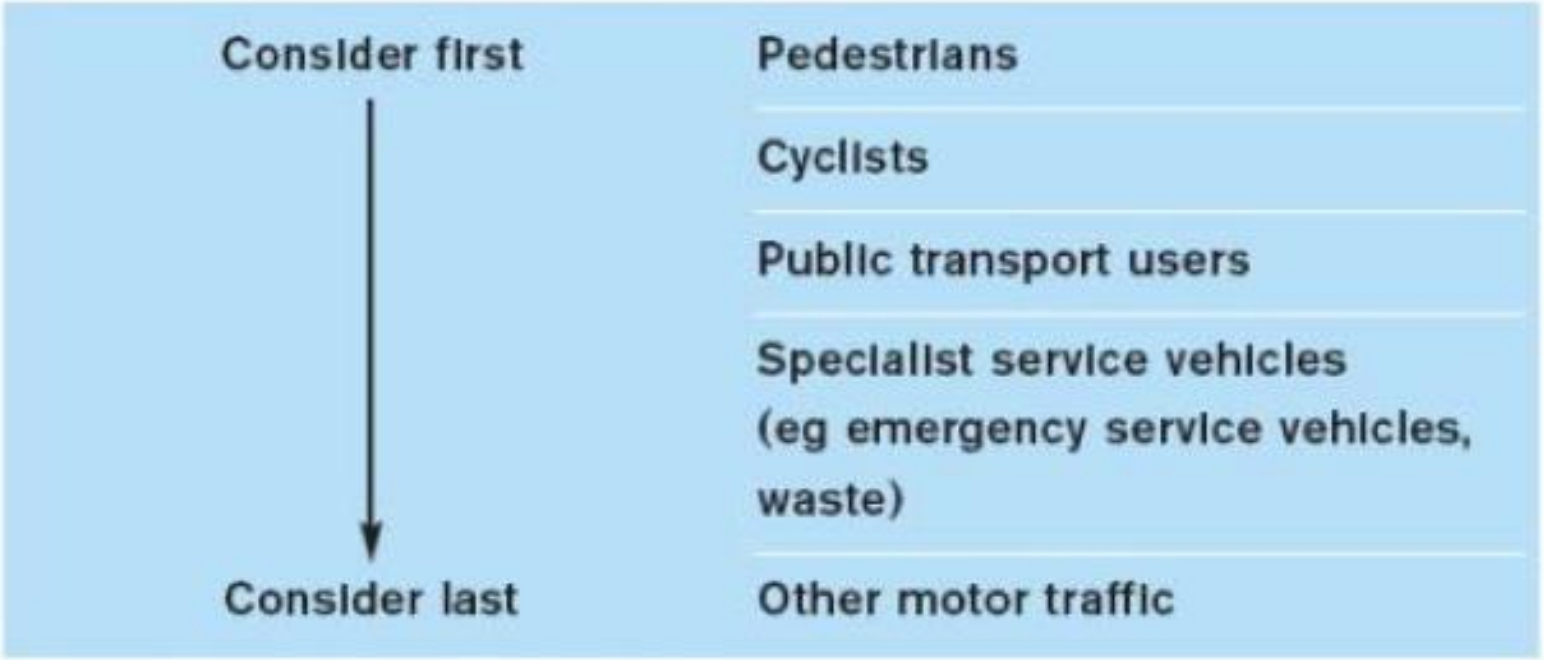
High-floor train



Proposed

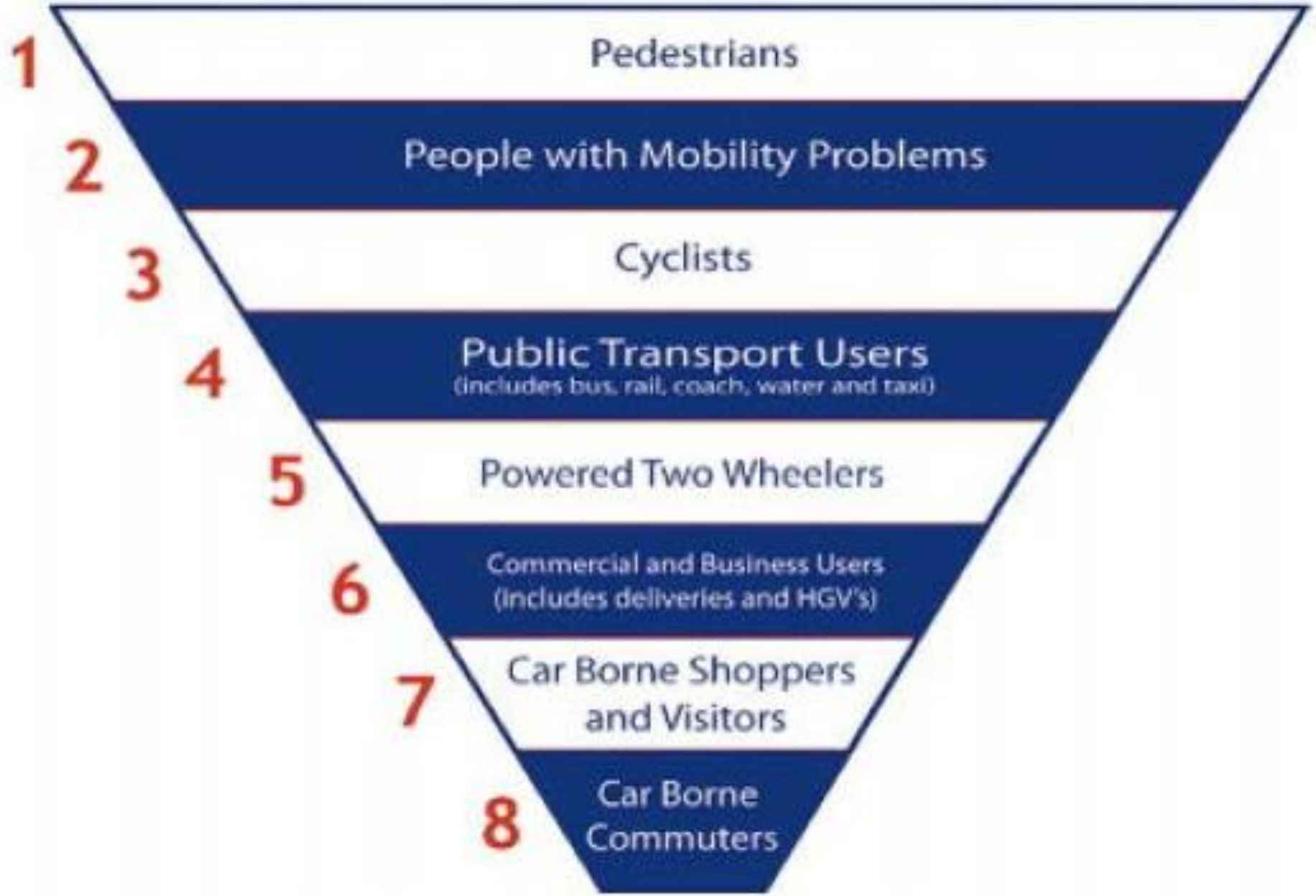

16'
8'
3'
8'
10'
10'
Sidewalk
Bike Lane
Buffer
Parkin
e
Drive Lane
Drive Lan

People first – the new hierarchy on street design



Manual for streets, p28, table 3.2

"The preferred Transport User Hierarchy of the (UK) Department for Transport, is that streets should be designed with the needs of the most vulnerable users being considered first, and the needs of the least vulnerable last"



* Note: Pedestrians with mobility problems are given the highest priority

MEASURE OVR 1:

The Authority supports a transport user hierarchy that considers transport user needs in the following order:

1. *Pedestrians (including those accessing public transport)*
2. *Cyclists*
3. *Public transport users*
4. *Freight, delivery and waste vehicles*
5. *Private vehicles users*

In all cases, provision must be made for emergency vehicle access as required, and the needs of disabled people should be fully taken into account.

10.2 NATIONAL URBAN TRANSPORT POLICY: NON MOTORISED TRANSPORT MODES

The policy document starts with a background of travel environment in Indian cities mentioning the realities of urban transport and describes roots of the problem. Following is an extract of the background specially related to non-motorised modes.

The cost of travel, especially for the poor, has increased considerably. This is largely because the use of cheaper non-motorised modes like cycling and walking has become extremely risky, since these modes have to share the same right of way with motorized modes. Further, with population growth, cities have tended to sprawl and increased travel distances have made non-motorized modes impossible to use. This has made access to livelihoods, particularly for the poor, far more difficult.

Among other objectives of policy, worth mentioning statements related to non-motorized transport are the following:

(a) Bringing about a more equitable allocation of road space with people, rather than vehicles, as its main focus

(b) Investing in transport systems that encourage greater use of public transport and non-motorized modes instead of personal motor vehicles

This policy brings out the following areas of concern:

(a) Declining rate of non-motorised traffic from 17% in 1981 to 7% in 1994 in Delhi.

The period between 1981 and 2001 and subsequently 2011 has seen a phenomenal increase in the growth of vehicles and traffic in Delhi.

There has been a rise in per capita trip rate (excluding walk trips) from 0.72 in 1981 to 0.87 in 2001 and exponentially more in 2011.

Keeping in view the population growth, this translates into an increase from 45 lakh trips to around 118 lakh trips in 2001 and 144 lakh trips till 2008.

As per the Transport Demand Forecast Study (TDFS) undertaken by GNCTD and approved by the UTTIPEC in 2011, it is seen that between 2001 and 2008, the private motor vehicle trips have increased from 28% to 35% and non-motorized vehicle trips from 9% to 15%, however bus trips have unfortunately decreased from 60% to 42% of the total number of trips.

Schedule A: NMT goals

COC will strive to meet and urge concerned agencies to take action to meet by 2018 the following goals related to the performance measurement indicators set above (Section 5.1):

A. Increase the mode share for pedestrians and cyclists to at least 40 per cent.

B. Reduce the number of pedestrian and cyclist fatalities to 0 per annum.

C. Ensure that at least 80 per cent of streets have footpaths.

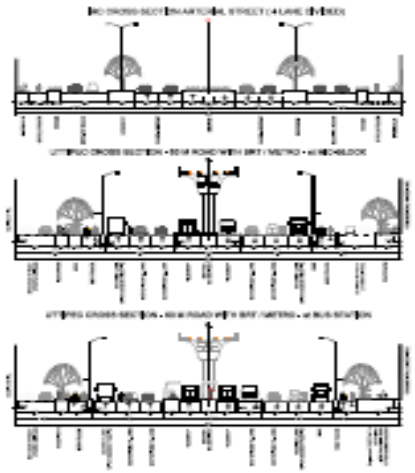
D. Ensure that at least 80% of streets with a right-of-way (ROW) of over 30 m have unobstructed, segregated, continuous cycle track of 2m width.

E. Increase public transport mode share to at least 60 per cent of motorised trips.

F. Stabilise private motor vehicle kilometres travelled (VKT) so that there is 0 per cent annual gRowth in VKT.

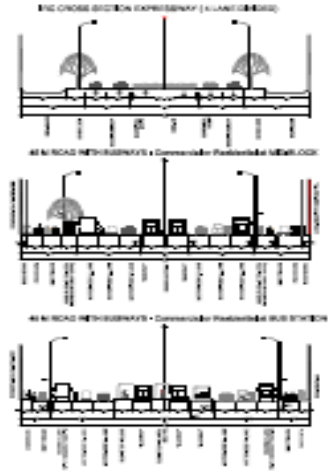
60 m

Primary Arterial Road
(Access-Controlled)



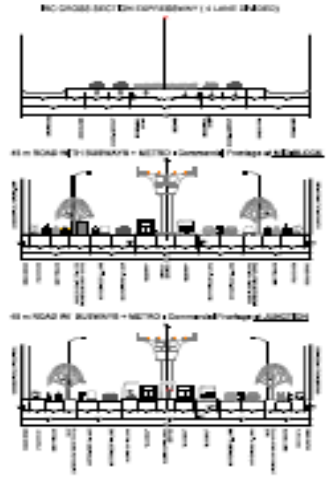
45 m

Other Primary Arterial Road
All Uses Edge Condition
(with Busways)



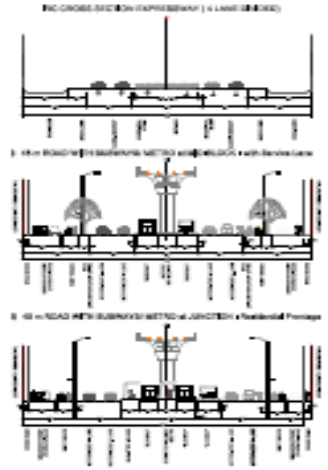
45 m

Other Primary Arterial Road
Commercial Edges
(with Metro & Busways)



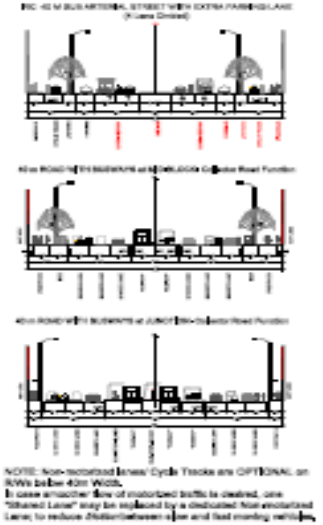
45 m

Other Primary Arterial Road
Residential Edges
(with Metro and Busways)



40 m

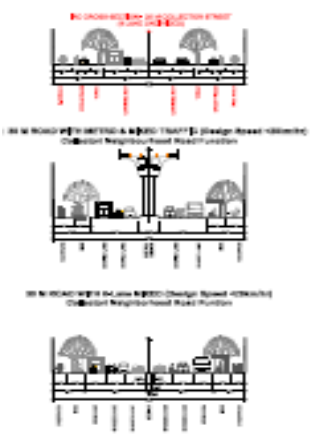
Primary Collector Road
(function may vary)



NOTE: Non-motorized lanes/ Cycle Tracks are OPTIONAL on ROWs below 40m Width.
In case smoother flow of motorized traffic is desired, one "Shared Lane" may be replaced by a dedicated Non-motorized Lane, to reduce friction between slow and fast moving vehicles.

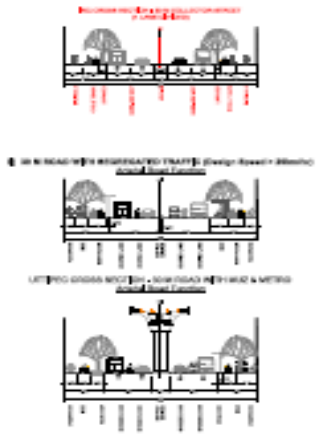
30 m

Primary Collector Road



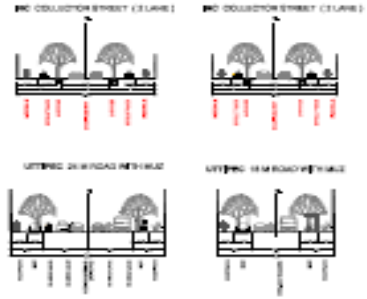
30 m

Primary Collector Road
(may Function as Arterial Road)



18-24 m

Secondary Collector Roads



12-20 m

Local Roads

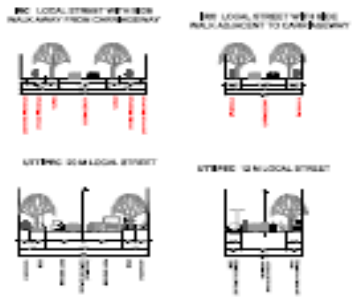


Table 2: Capacity of Side Walks

Width of side walk	Capacity in number of persons per hour	
(in metres)	All in one direction	In both directions
1.50	1,200	800
2.00	2,400	1,600
2.50	3,600	2,400
3.00	4,800	3,200
4.00	6,000	4,000

Source: (IRC:103-1988, 1989, p. 3)

Table 3: Footpath widths according to land-use.

S.no.	Land-use	Minimum width of footpath in Metres
1	Residential	1.8
2	Commercial/Mixed use	2.5
3	Commercial nodes	4.0

Source: (UTTIPEC, 2010, p. 44)

Table 1: Modal Share in Cities of India (2007)

City Category according to Population	Walk	Cycle	2W*	Public Transport	Car	IPT
Category 1a (< 0.5 million, Plain Terrain)	34	3	26	5	27	5
Category 1b (< 0.5 million, Hilly Terrain)	57	1	6	8	28	0
Category 2 (0.5-1.0 million)	32	20	24	9	12	3
Category 3 (1.0-2.0 million)	24	19	24	13	12	8
Category 4 (2.0-4.0 million)	25	18	29	10	12	6
Category 5 (4.0-8.0 million)	25	11	26	21	10	7
Category 6 (Above 8 million)	22	8	9	44	10	7
Total	31	11	21	16	16	5

*2W= 2-Wheelers like Scooters and Motorcycles.

Source: (Wilbur Smith Associates and Ministry of Urban Development, 2008, p. 38)

Thank you

for

your time and attention!