

The Significance Of Urban Amenities And Accessibility In Sustainable Design



(KeTTHA) Conference On Green
Technology

2014

Why Accessibility?

- Most Asked Question
- Permeability of the City
- Easy to reach your destination
- Amenities/Facilities within reach

Why Accessibility?



Liveability

The New adage of the Modern City



Massive traffic jam on on China National Highway 110 (G110) and Beijing–Tibet expressway (G6), in Hebei and Inner Mongolia.

Liveability

The New adage of the Modern City



Rank		City	Country
2012	2011		
1	1	VIENNA	AUSTRIA
2	2	ZURICH	SWITZERLAND
3	3	AUCKLAND	NEW ZEALAND
4	4	MUNICH	GERMANY
5	5	VANCOUVER	CANADA
6	5	DÜSSELDORF	GERMANY
7	7	FRANKFURT	GERMANY
8	8	GENEVA	SWITZERLAND
9	9	COPENHAGEN	DENMARK
10	9	BERN	SWITZERLAND
10	11	SYDNEY	AUSTRALIA
12	12	AMSTERDAM	NETHERLANDS
13	13	WELLINGTON	NEW ZEALAND
14	14	OTTAWA	CANADA
15	15	TORONTO	CANADA
16	17	BERLIN	GERMANY

Mercer Quality of Living Survey - Worldwide Rankings, 2012 Out of 212 cities

Liveability

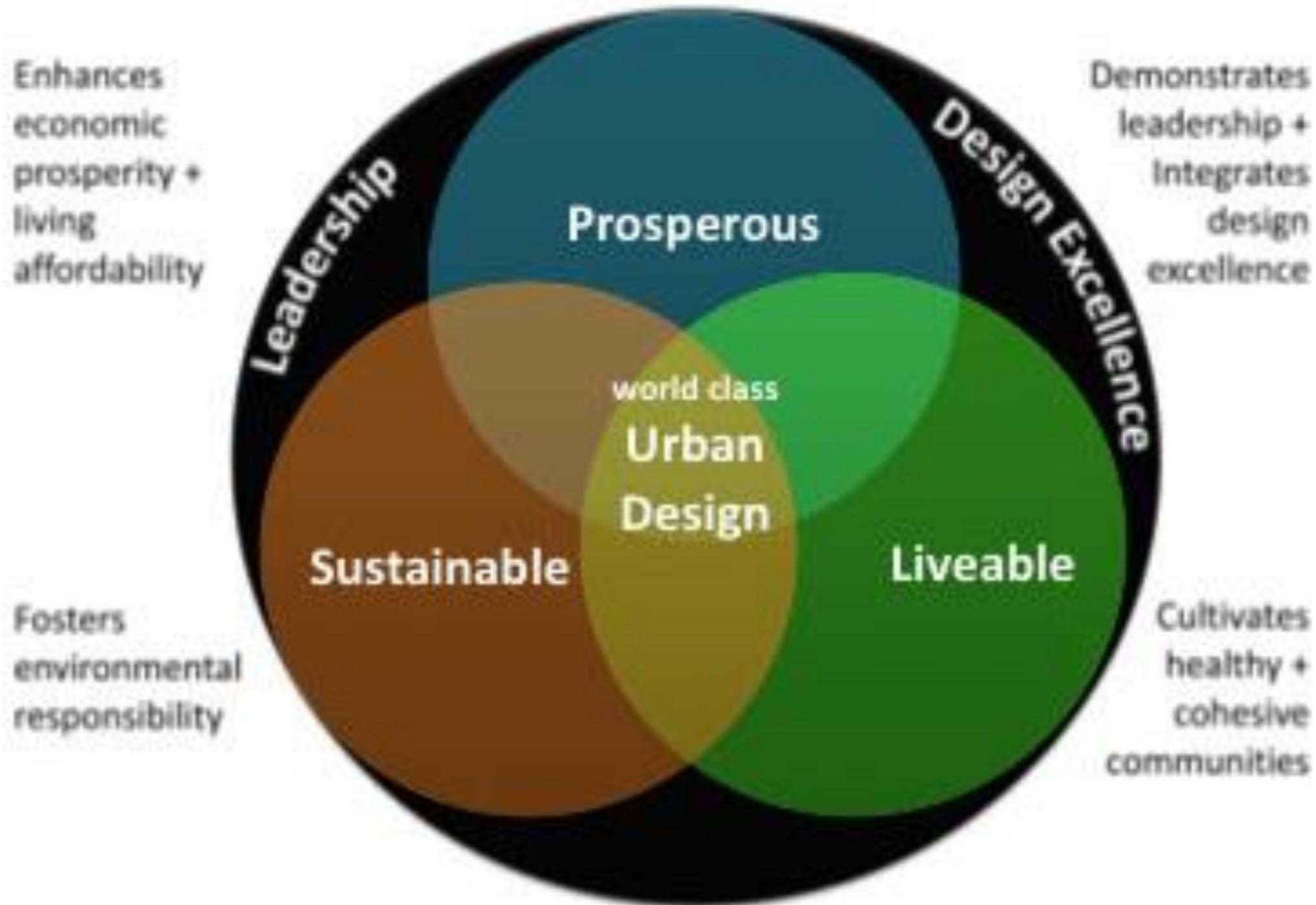
The New adage of the Modern City



69	69	PRAGUE	CZECH REPUBLIC
70	70	HONG KONG	HONG KONG
71	71	DETROIT, MI	UNITED STATES
72	72	SAN JUAN	PUERTO RICO
73	74	DUBAI	UNITED ARAB EMIRATES
74	73	BUDAPEST	HUNGARY
75	75	LJUBLJANA	SLOVENIA
75	80	SEOUL	SOUTH KOREA
77	77	MONTEVIDEO	URUGUAY
78	78	ABU DHABI	UNITED ARAB EMIRATES
79	79	VILNIUS	LITHUANIA
80	76	KUALA LUMPUR	MALAYSIA
81	81	BUENOS AIRES	ARGENTINA
82	82	PORT LOUIS	MAURITIUS
83	83	ATHENS	GREECE
84	84	WARSAW	POLAND
85	85	TAIPEI	TAIWAN
86	86	BRATISLAVA	SLOVAKIA

Mercer Quality of Living Survey - Worldwide Rankings, 2012 Out of 212 cities

Pillars of Urban Design Protocol



Enhances economic prosperity + living affordability

Demonstrates leadership + Integrates design excellence

Fosters environmental responsibility

Cultivates healthy + cohesive communities

A Case for Accessibility



- Creation of urban connectivity
- Having amenities at Localities which are near
- Green Transport Masterplan
- Availability and Frequency of Public Transport
- Facilities for Public Transportation
- Pedestrian Networks
- Cycling Networks
- Alternative Transport Options

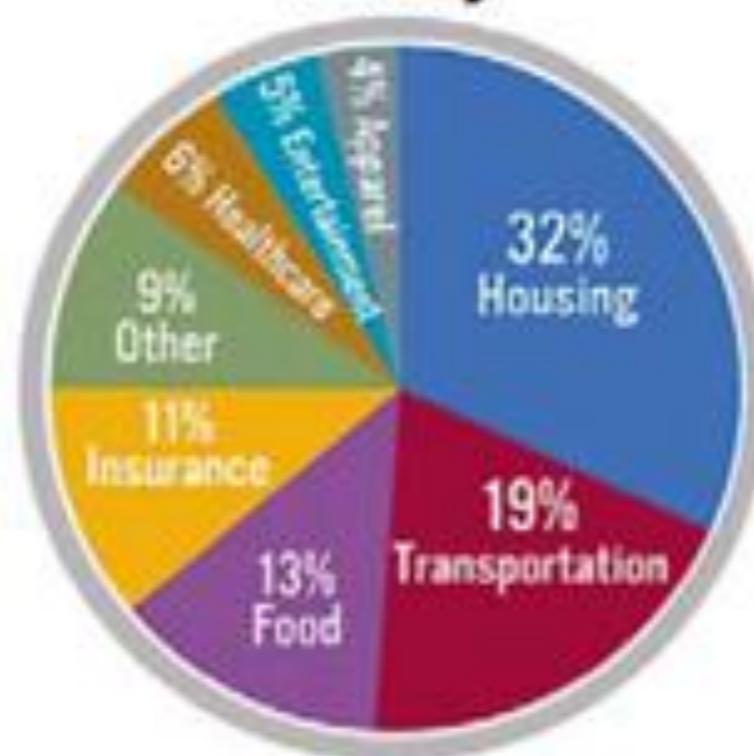
A case for Accessibility



Location Efficient Environment



Average American Family

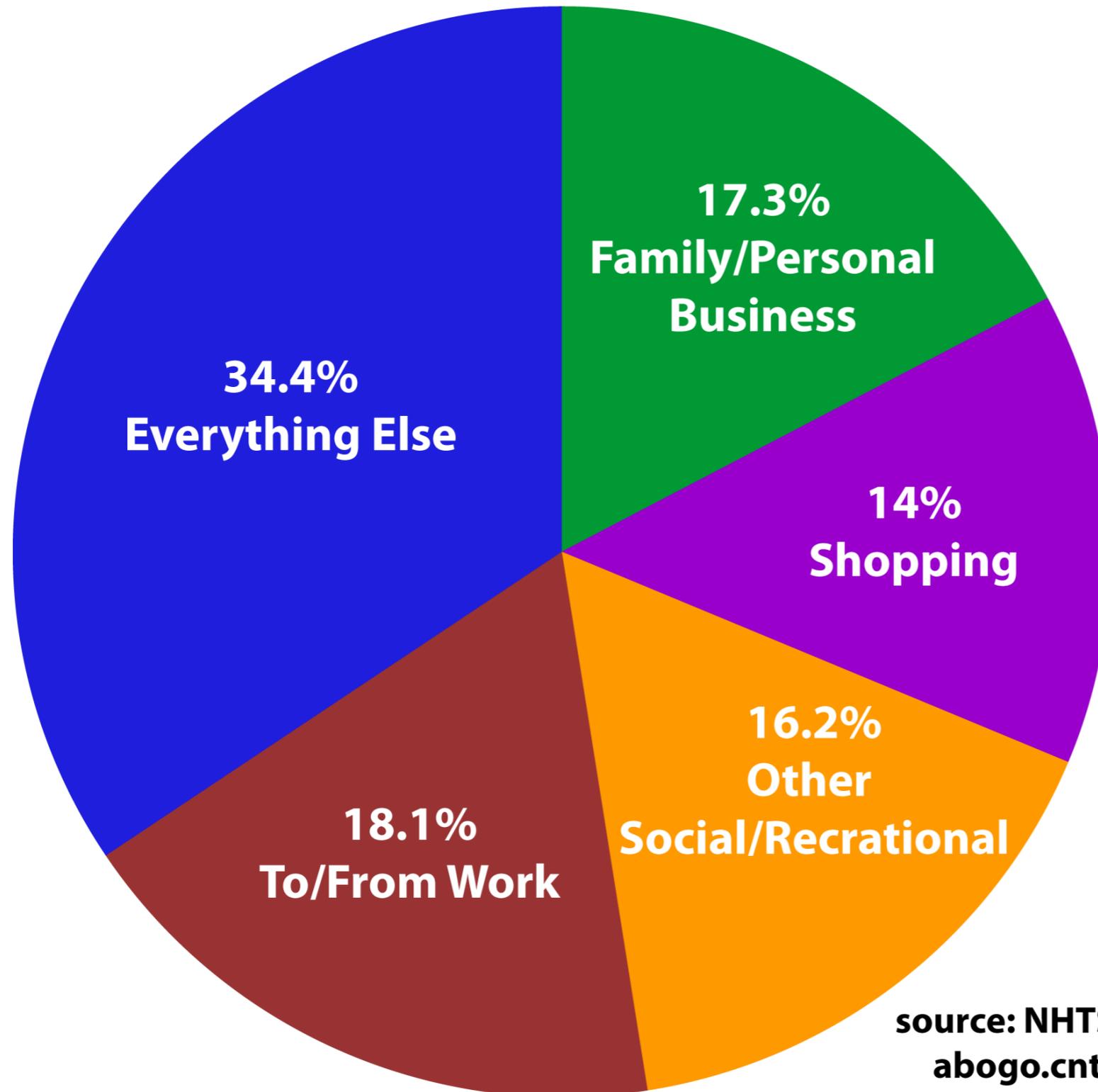


Auto Dependent Exurbs



A case for Accessibility

% of Miles Traveled by Purpose



**source: NHTS 2001
abogo.cnt.org**

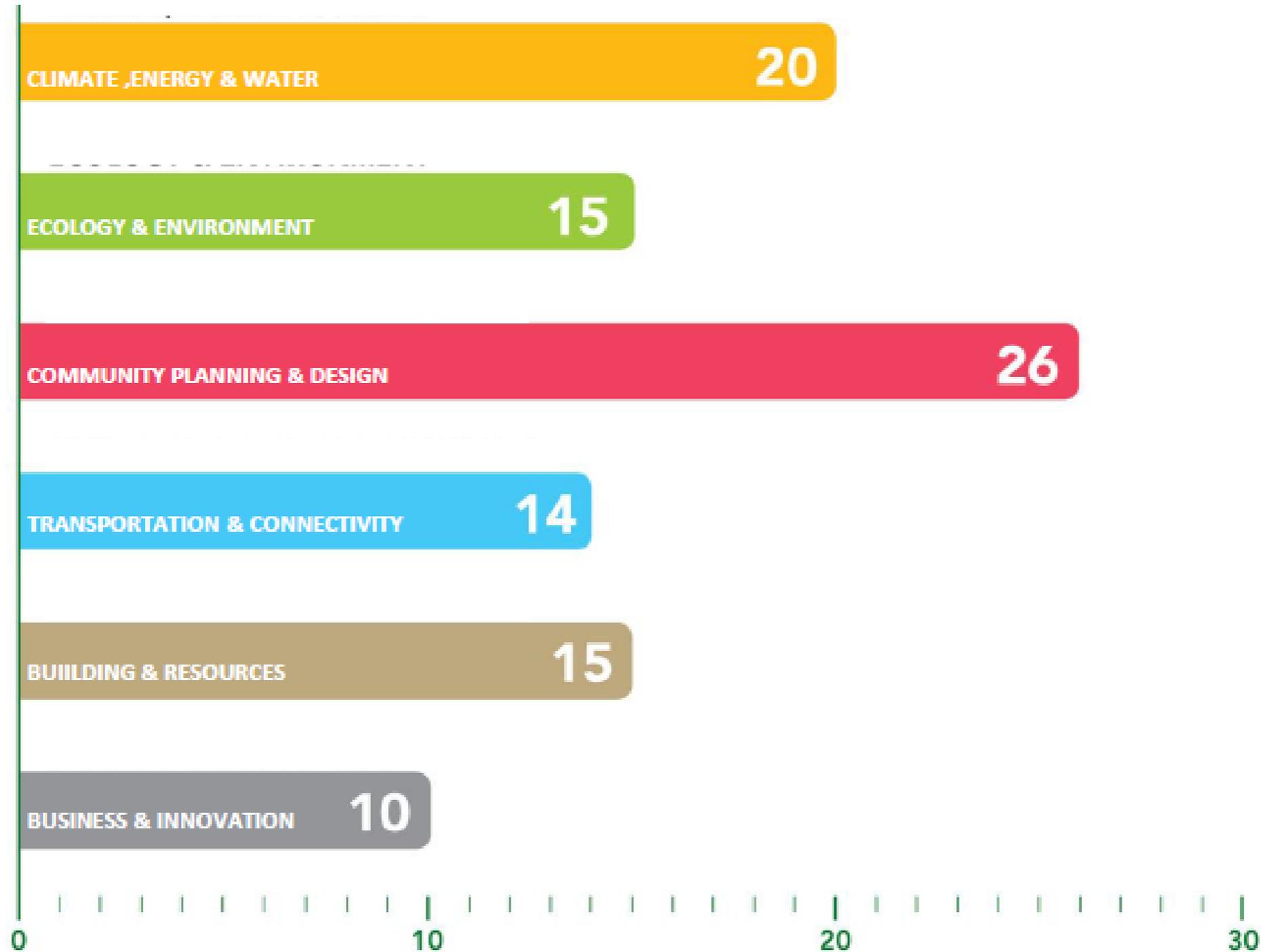
Performance Criteria



Performance Criteria



Translated into scoring

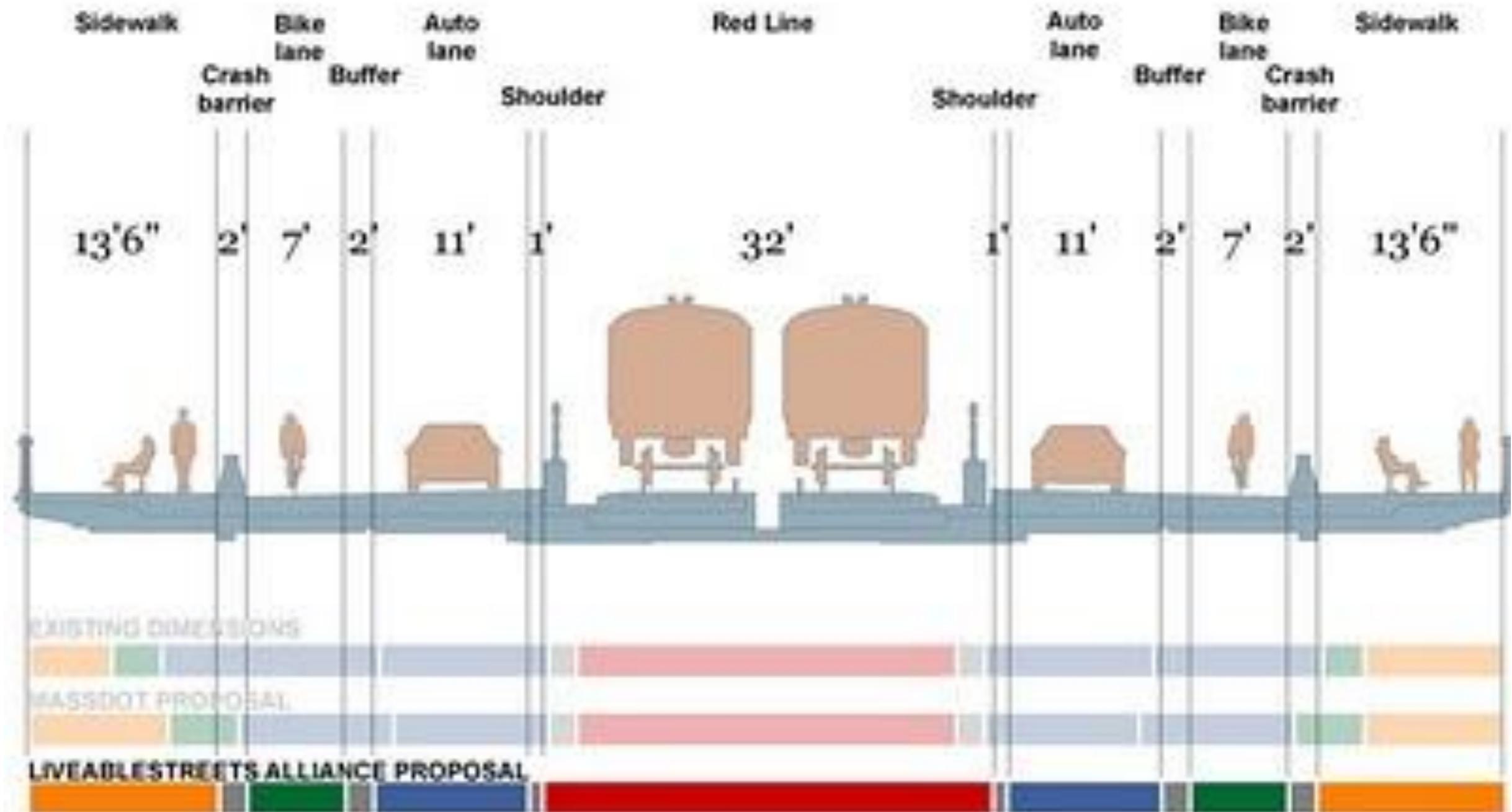


A Case for Accessibility



LIVEABLESTREETS ALLIANCE PROPOSAL

Adds wider bike lanes, widens sidewalks, widens Red Line, eliminates one auto lane each direction



Travelling to work

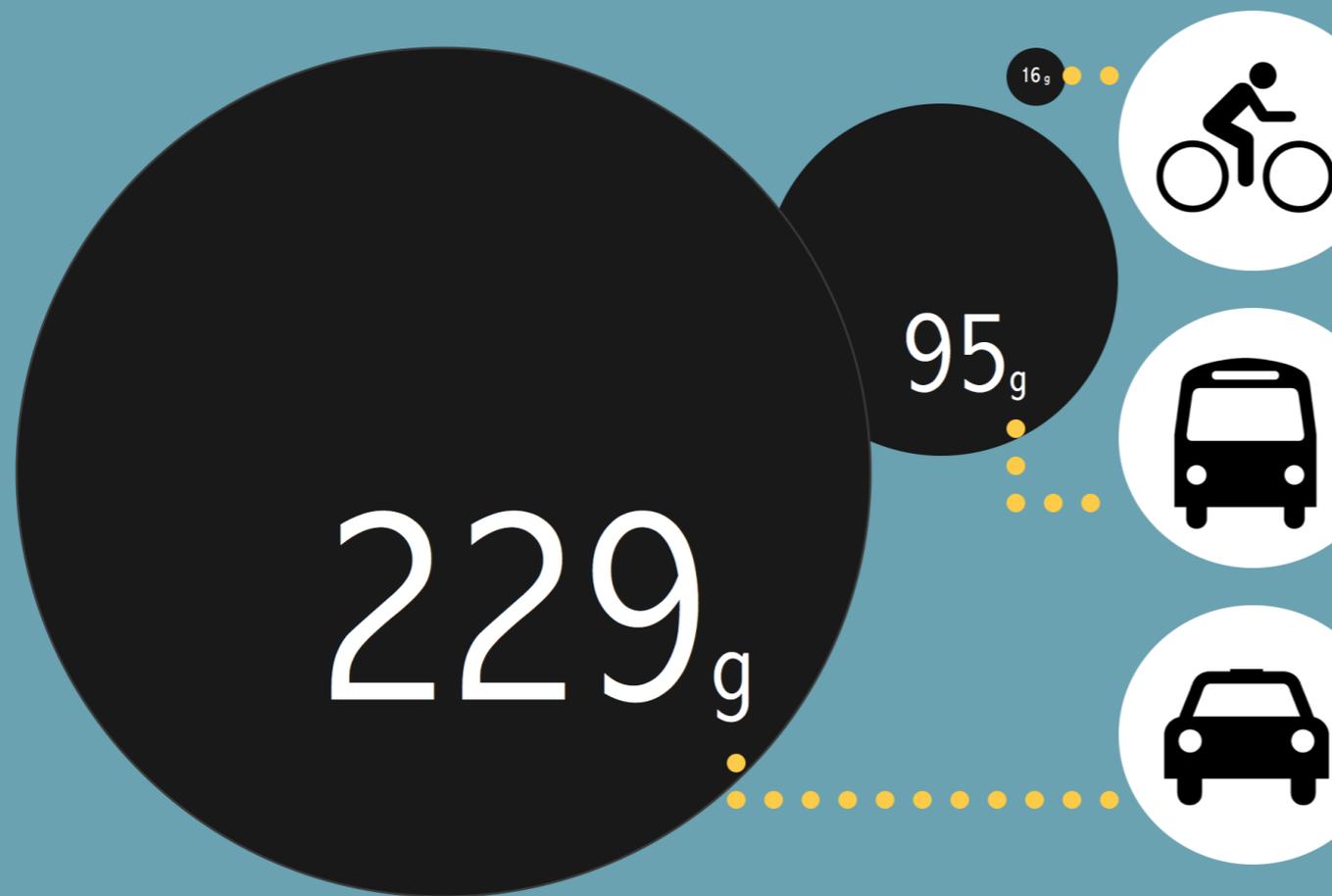


Performance Criteria



FUEL CO₂ EMISSIONS

The amount of CO₂ emissions required to fuel different modes of transport*.
[per passenger kilometres]



*Based on average occupancy rate of: 1.16 for cars, 10 for buses, 1 for bicycles. – Includes all CO₂ emissions linked to fuel including production, distribution and consumption.

FUEL TYPES
CYCLIST
BUS
CAR



The 40 people test



Bike

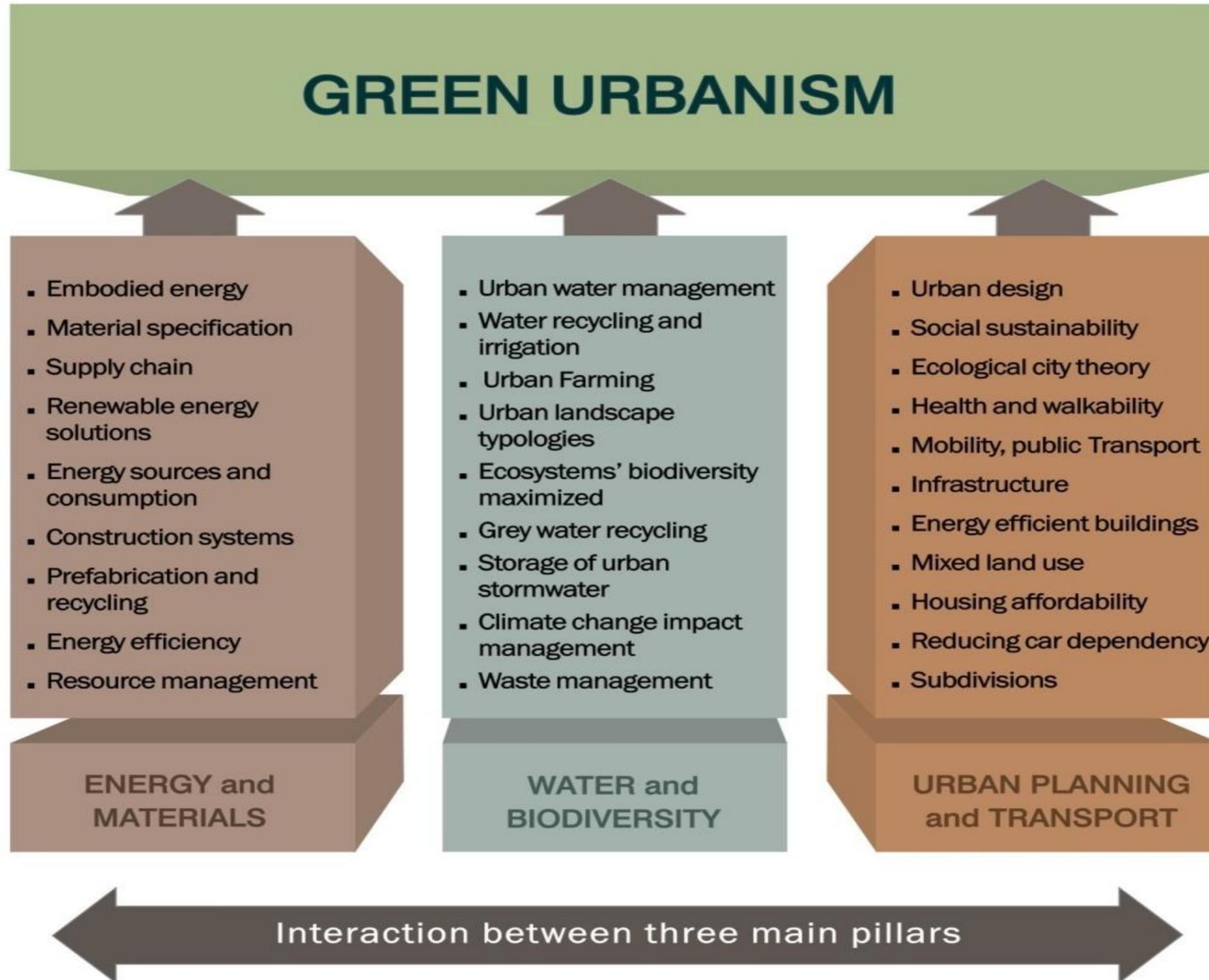


Car



Bus

Green Urbanism



Serious Bike Lanes- MPPP



Biking in Malaysia?



WHAT'S THE BEST WAY TO COMMUTE?

THE APPROXIMATELY 4M JOURNEY FROM ISLINGTON TO CANARY WHARF IS A POPULAR COMMUTING ROUTE, BUT WHICH IS THE BEST WAY TO GET THERE? BICYCLE, PUBLIC TRANSPORT, OR CAR?

MONTHLY COSTS

- £9** (RIDE TO WORK)
- £225** (TRAVELCARD)
- £458**

CYCLING WINS COMFORTABLY ON COST. A 'RIDE TO WORK' SCHEME IS SIGNIFICANTLY CHEAPER THAN THE AVERAGE MONTHLY COSTS FOR RUNNING A CAR OR MONTHLY TRAVEL CARDS.

TRAVEL TIME

- 26
- 30
- 50

THERE'S NO ACCOUNTING FOR TRAFFIC IN THE CAPITAL, SO WITH (AN ALBEIT AMBITIOUS) 30MINS ADDED FOR JAMS, THE CAR FALLS WAY BEHIND PUBLIC TRANSPORT WHICH IS NARROWLY PIPPED BY THE BIKE.

WINNER:

ENVIRONMENTAL

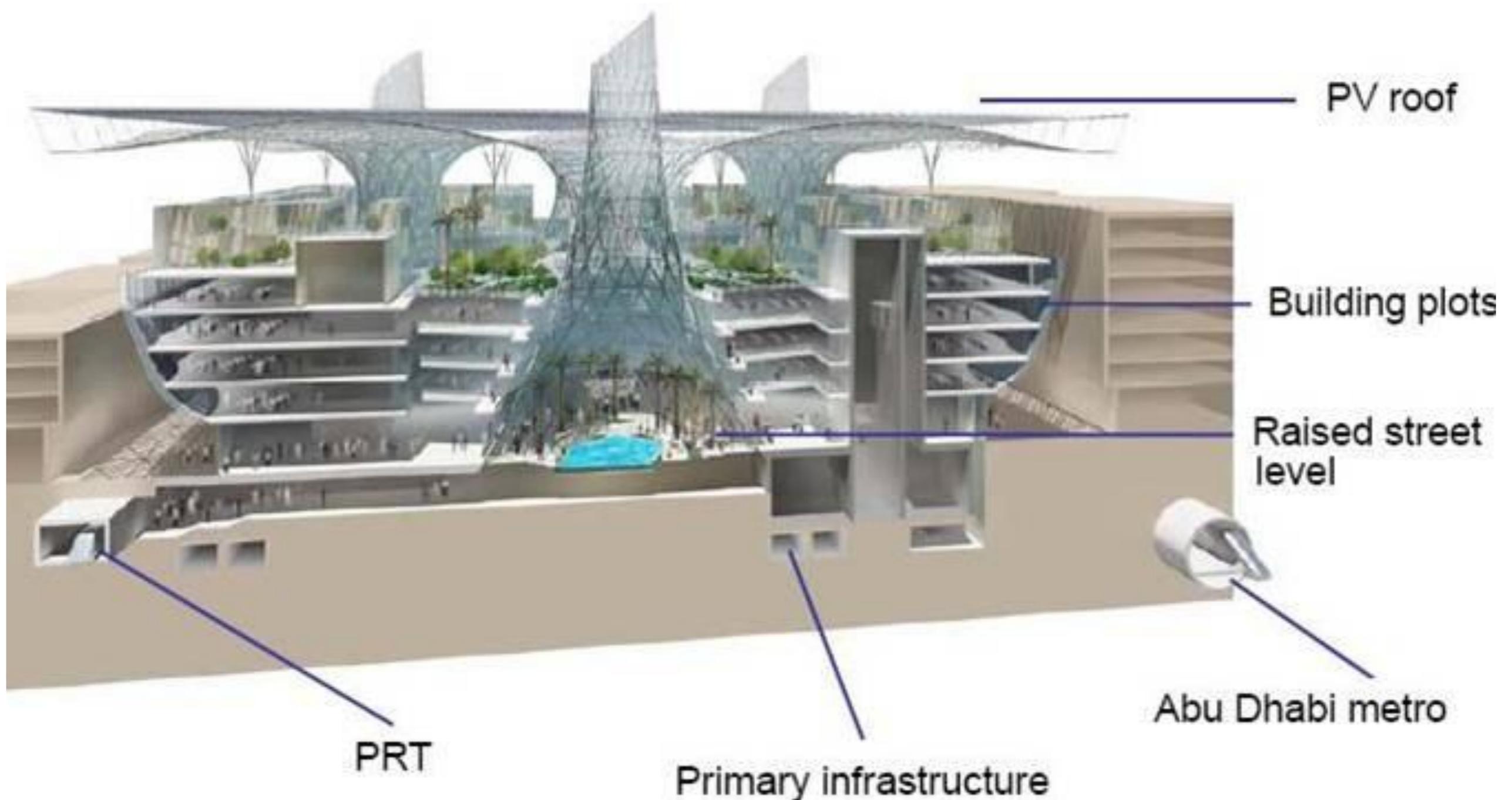
Biking in Malaysia?



Green Urbanism



Masdar City Cross Section



Green Urbanism



Melaka Smart Grid City 2030



Green Urbanism

