Changing Streets to Change the World

NACTO | Global Designing Cities Initiative
Auckland, NZ, March 2016

Skye Duncan
skye@nacto.org
@GlobalStreets


Help you to see
the potential
in the streets of
Auckland


Restore the role of the street as the lifeblood of our communities

Largest continuous network of public space …

….we must make better, more efficient use of this valuable space


Mobility and Access
Environmental Sustainability
Economic Sustainability
Livability and Quality of Life
Public Health and Safety

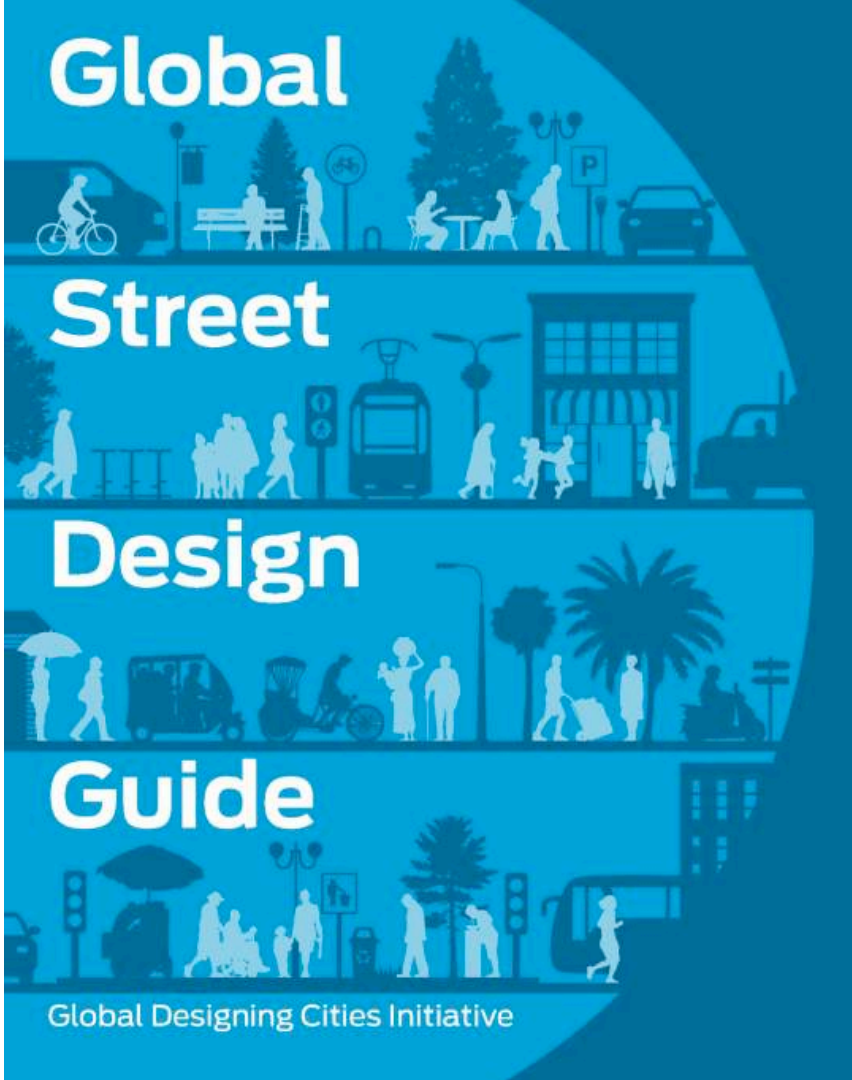

Mobility and Access
Environmental Sustainability
Economic Sustainability
Livability and Quality of Life
Public Health and Safety

Bloomberg Philanthropies

Bloomberg Initiative for Global Road Safety

September 2014 announced:
2015-2019
$125 Million

NACTO

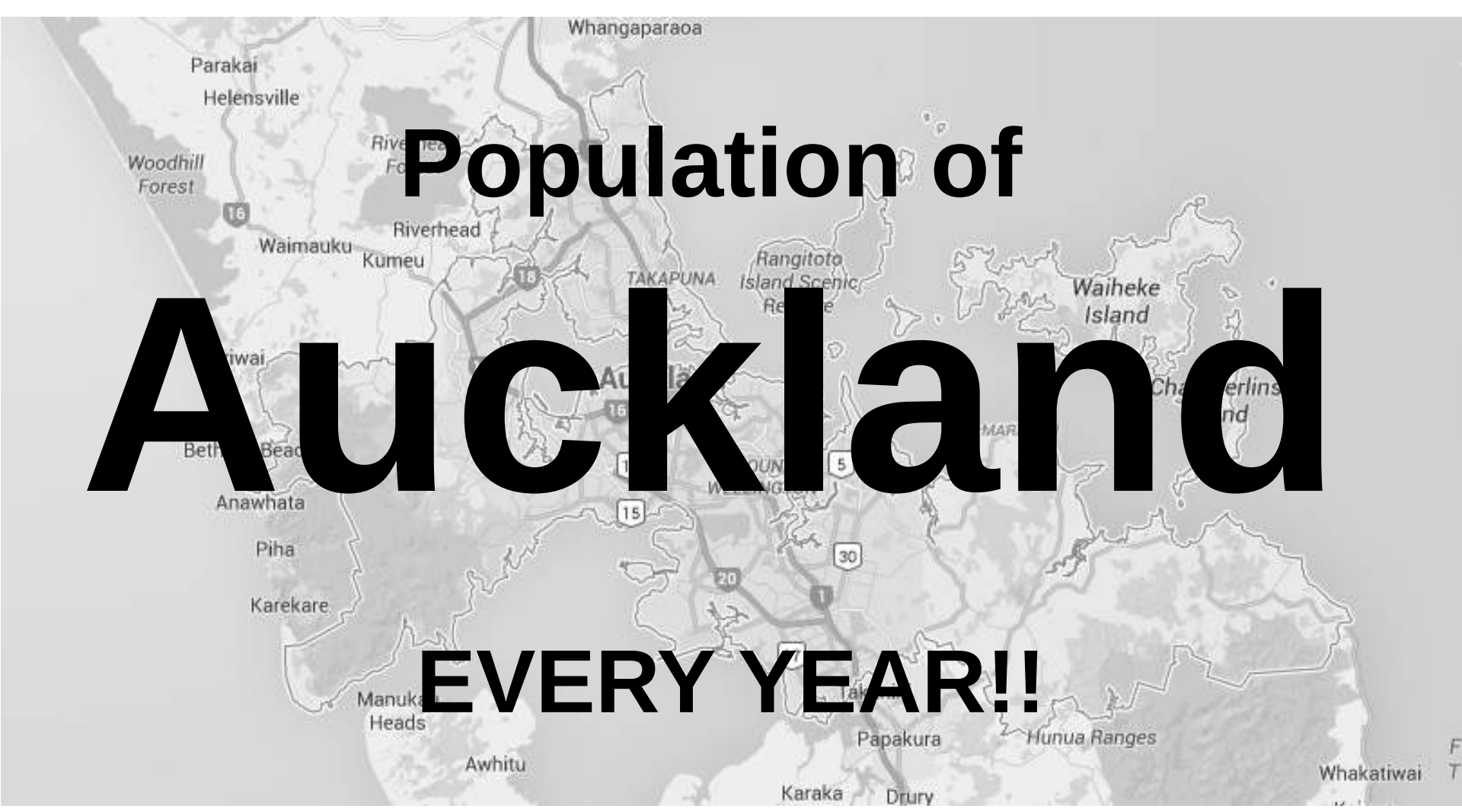

Global
Street
Design
Guide
Global Designing Cities Initiative


1.25 million
traffic fatalities
annually

1 person every 30 seconds


120

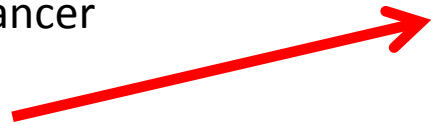
Population of Auckland



Population of Auckland EVERY YEAR!!

Global Leading Causes of Death

Today Rank	Disease/Injury
1	Heart Disease
2	Stroke
3	Respiratory Infection
4	Pulmonary Disease
5	Diarrhoeal Disease
6	HIV/AIDS
7	Throat/Lung Cancer
8	Diabetes
9	**Traffic Injuries**
10	Hypertension



2030 Rank	Disease/Injury
1	Heart Disease
2	Stroke
3	Pulmonary Disease
4	Respiratory Infection
5	Diabetes
6	Throat/Lung Cancer
7	**Traffic Injuries**
8	HIV/AIDS
9	Diarrhoeal Disease
10	Hypertension

Source: WHO Global Road Safety Report

These deaths are preventable!

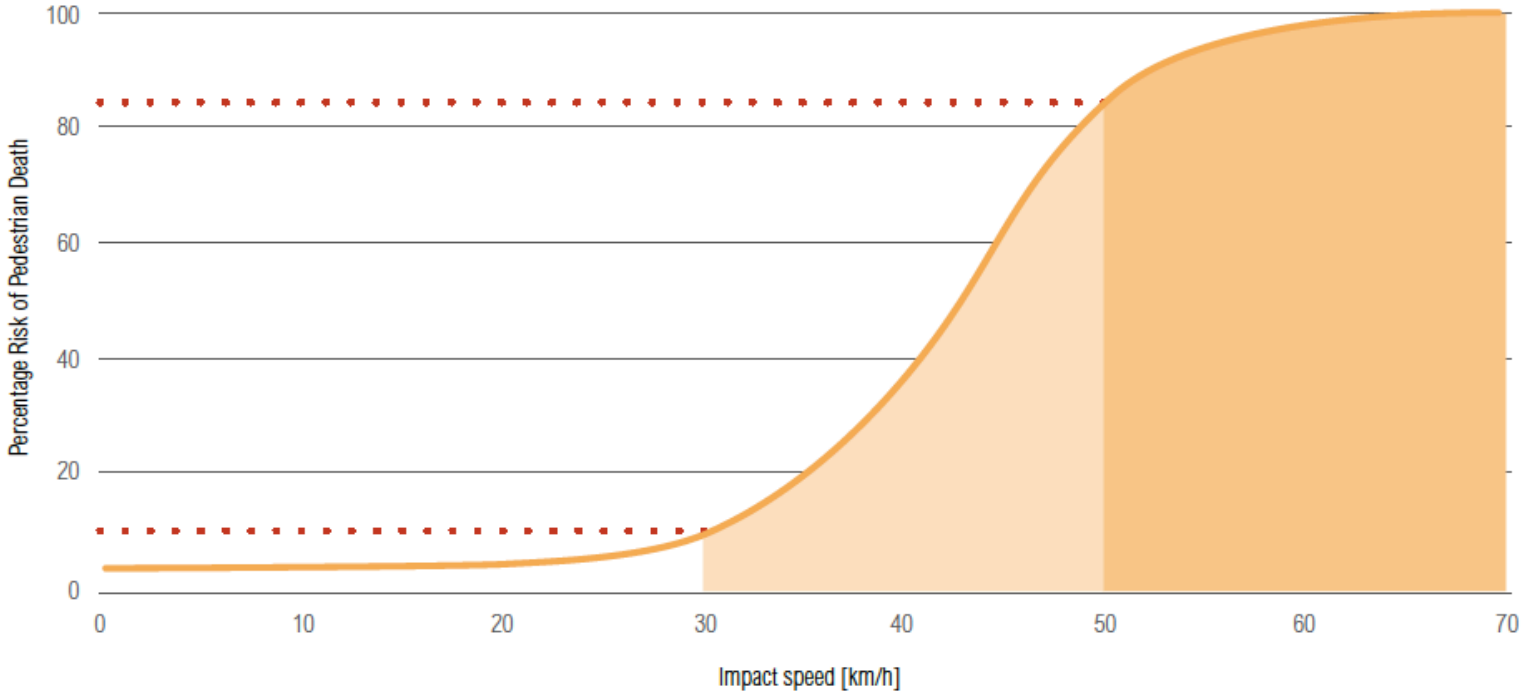
These deaths are preventable!

We know what to do ☺

Speed Kills!

1. Lower Speeds

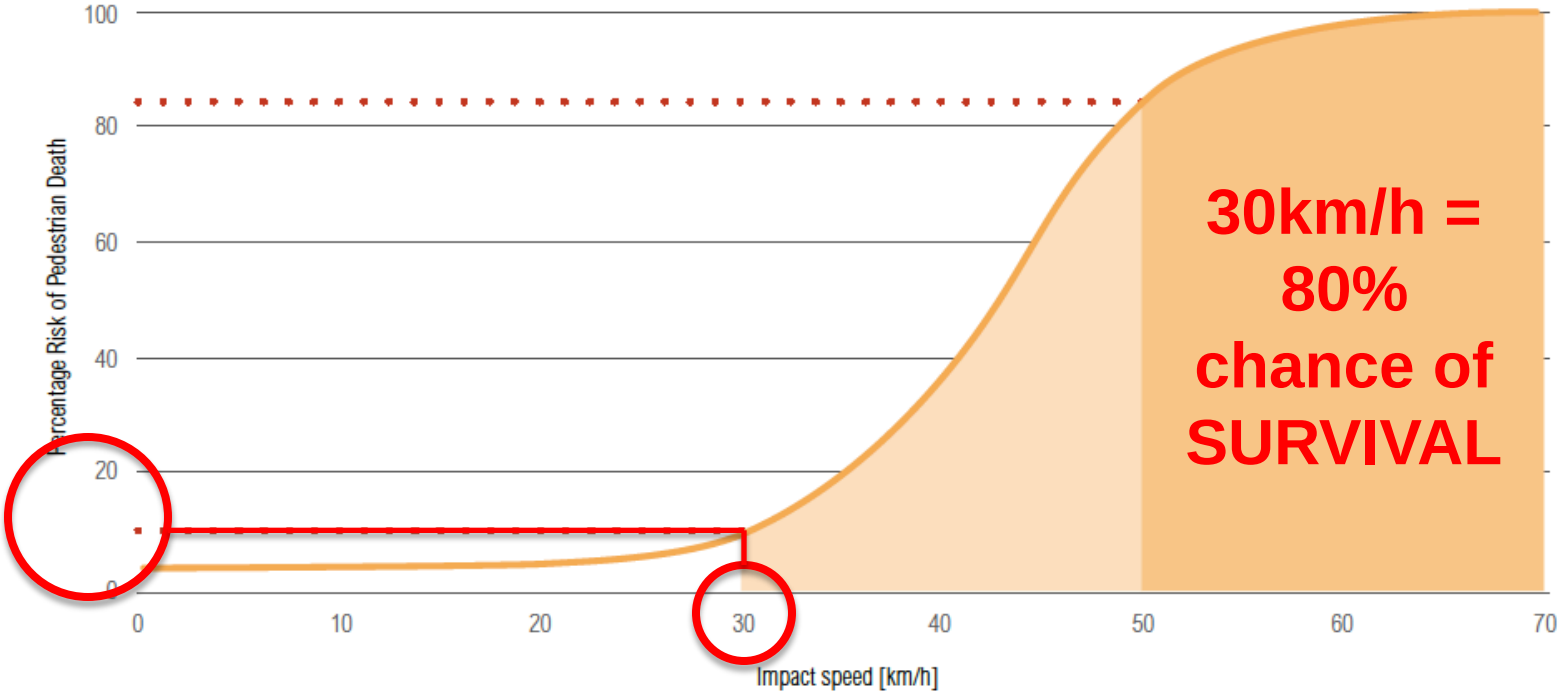
Risk of Pedestrian Death and Impact Speed



Note: The above figure shows the relationship between pedestrian fatalities and vehicle impact speed published by the OECD (2006). Some recent studies show a similar relationship, but account for sample bias to find slightly lower risks in the 40 to 50 km/hr range. (Rosen & Sander 2009, Tefft 2011, Richards 2010, Hannawald and Kauer 2004) There are not, however, studies from low- and middle-income countries where things like vehicle type, emergency response time and other characteristics may influence this relationship. In any case, there is clear evidence to support policies and practices that lower vehicle speeds to 30 km/hr where pedestrians are commonly present, and no more than 50 km/hr on non-grade separated streets.

Source: WRI Safer Cities by Design

Risk of Pedestrian Death and Impact Speed



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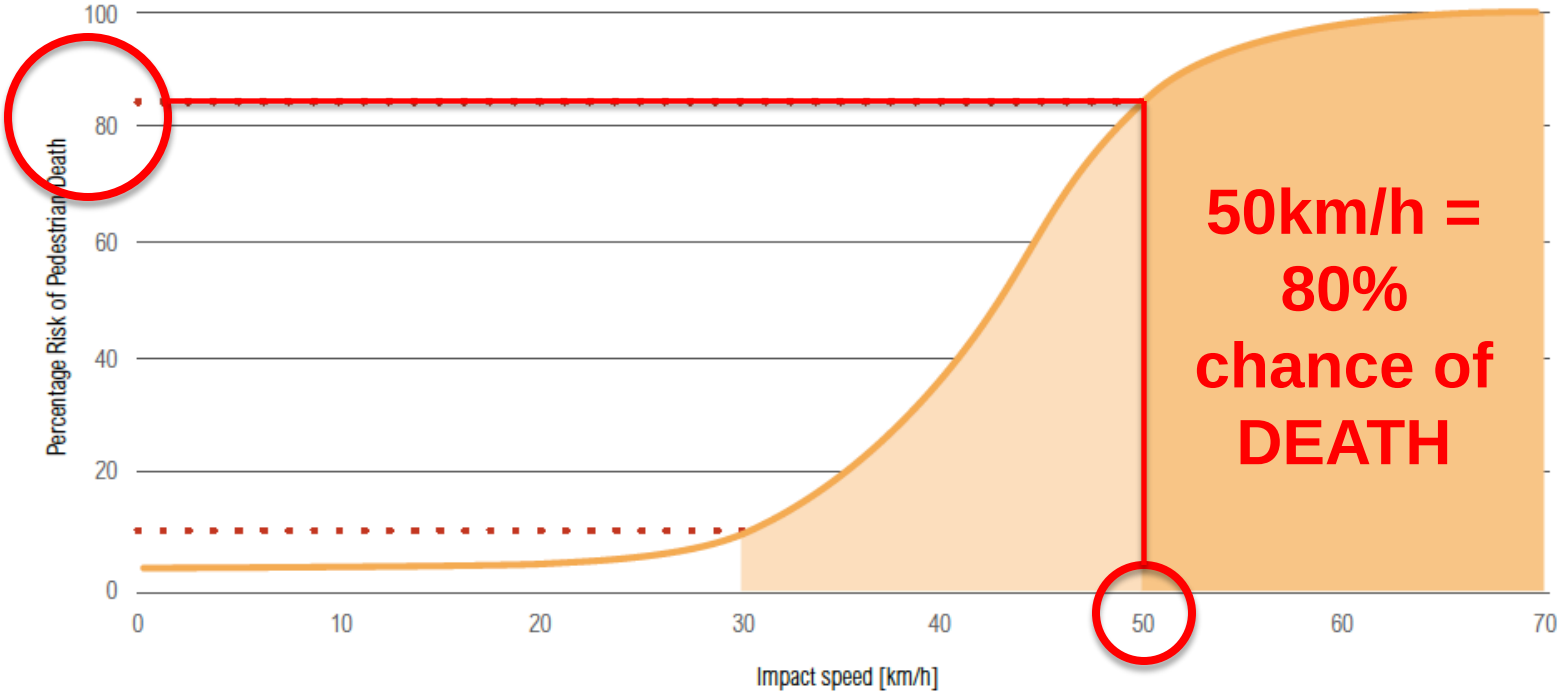

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Source: WRI Safer Cities by Design

2. Design streets that put people first.


Corona


TEMPLE
Artisans Angkor


INDONESIA INDIA
SRI LANKA MYANMAR
AFGHANISTAN ALGERIA ANGOLA AZERBAIJAN BAHRAIN
BHUTAN BOTSWANA

Bandung

Bogota

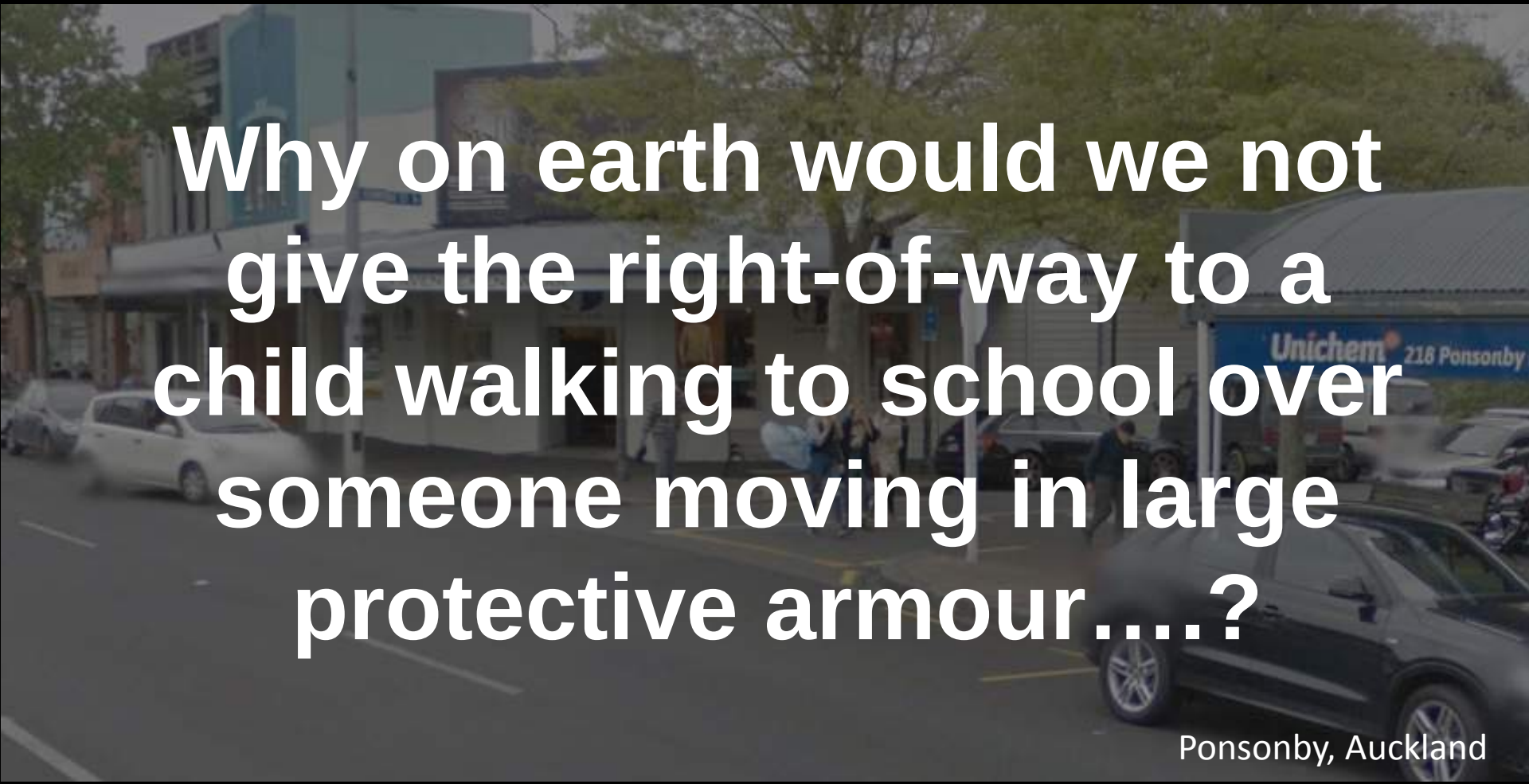
Bogota

New York

Ponsonby, Auckland

Cars have the right-of-way over pedestrians !!

Ponsonby, Auckland



Why on earth would we not give the right-of-way to a child walking to school over someone moving in large protective armour….?

Ponsonby, Auckland

Melbourne, Australia

Istanbul, Turkey

Prague, Czech Republic

Amsterdam, Netherlands

Helsinki, Finland


London, United Kingdom

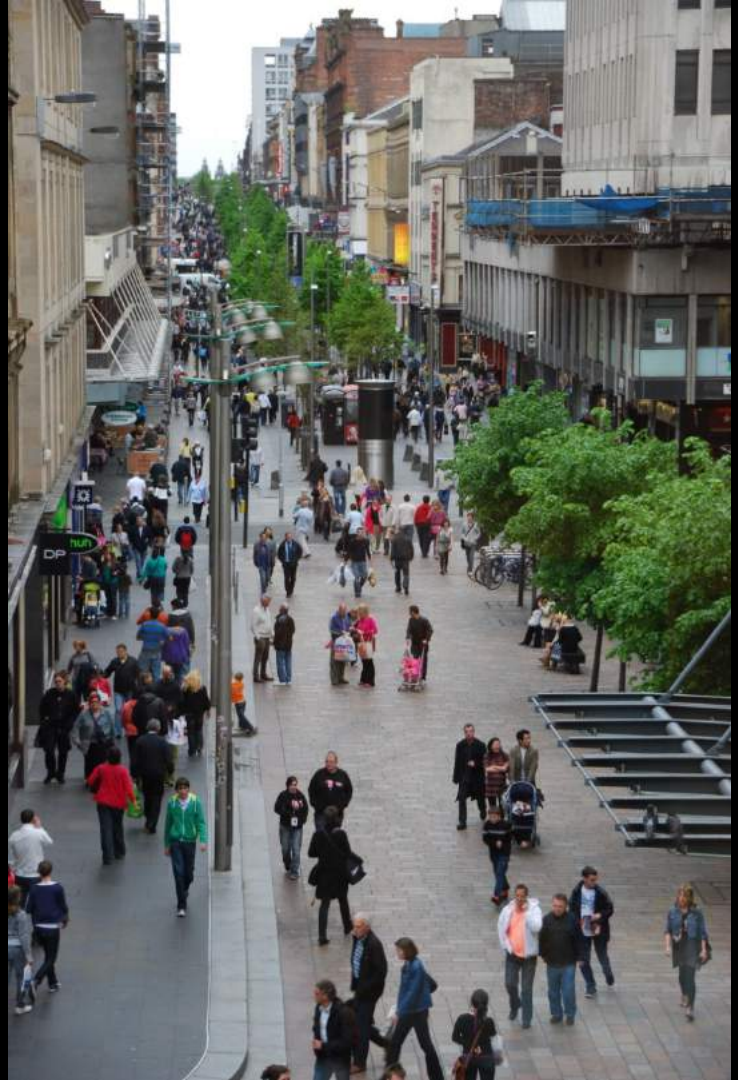

Lima, Peru

Sao Paulo

Sao Paulo

Buenos Aires, Argentina


Mexico City, Mexico



Glasgow, Scotland

Madrid, Spain

Auckland, New Zealand


Auckland, New Zealand

Auckland, New Zealand

http://www.pippacoom.co.nz/wordpress/wp-content/uploads/2015/12/Nelson-St-Christopher-and-Paul.jpg

Speed Reduction // 30km/h

United Kingdom (mph)

Christchurch, New Zealand

Car-Free Days

Image: http://newshour-tc.pbs.org/newshour/wp-content/uploads/2015/09/RTX1SPIQ.jpg

Car-Free Days

Bogota

Image: http://www.treehugger.com/bikes/bogota-changes-car-free-day-car-free-week.html

Car-Free Hours?

Bogota

Imae: http://www.treehugger.com/bikes/bogota-changes-car-free-day-car-free-week.html

Car-Free City Center by 2017!

Dublin

1/3
People Bike

1/3
Public transit

Copenhagen

Copenhagen

E-Bike Share

Copenhagen


Carbon
Neutral
by 2025
Copenhagen

Yea…whatever….that’s Copenhagen….
We’re different here in Auckland!

Credit: Gehl Architects

Copenhagen

Credit: Gehl Architects

Copenhagen

Copenhagen

Amsterdam

Amsterdam

Van Beuningenstraat and Van Boetzelaerstraat in 1962 and 2015

Amsterdam

Van Beuningenstraat and Van Boetzelaerstraat in 1962 and 2015

Amsterdam

(In progress/ working numbers)

City	City/Municipality			Urban Area		Cycles		Subway/Metro		Tram/LRT		Commuter/S-lines		Total rail
Name	Pop	Hab/km²	Surface (km²)	Pop	Hab/km²	Km of cycle lan	Bike share	# lines	km	# lines	km	# lines	km	km
Auckland	1,454,300	2,600	310	1,570,500		283	NO	0	0	0	0	5	120	120
Munich	1,407,836	4,500	559	2,606,021		1,200	Call A Bike	8	103.1	13	79	8	434	616
Stockholm	923,516	4,900	188	1,372,565	3,597	760	City Bikes	7	105.7	4	36.3	6	340.5	482.5
Helsinki	626,305	2,930	715	1,115,942	1,449	1,200 (2,600)	CityBikes	2	21	13	38	4	235	294
Copenhagen	591,481	6,900	86	1,263,698	2,052	454	Bycykler Købe	2	13.9	0	0	7	170	183.9
Dublin	527,612	4,588		1,110,627		195 (50 shared)	Dublin Bikes	0	0	2	36.5	2	53	90

(Population/ density/ desirable mode share/ infrastructure)

(In progress/ working numbers)

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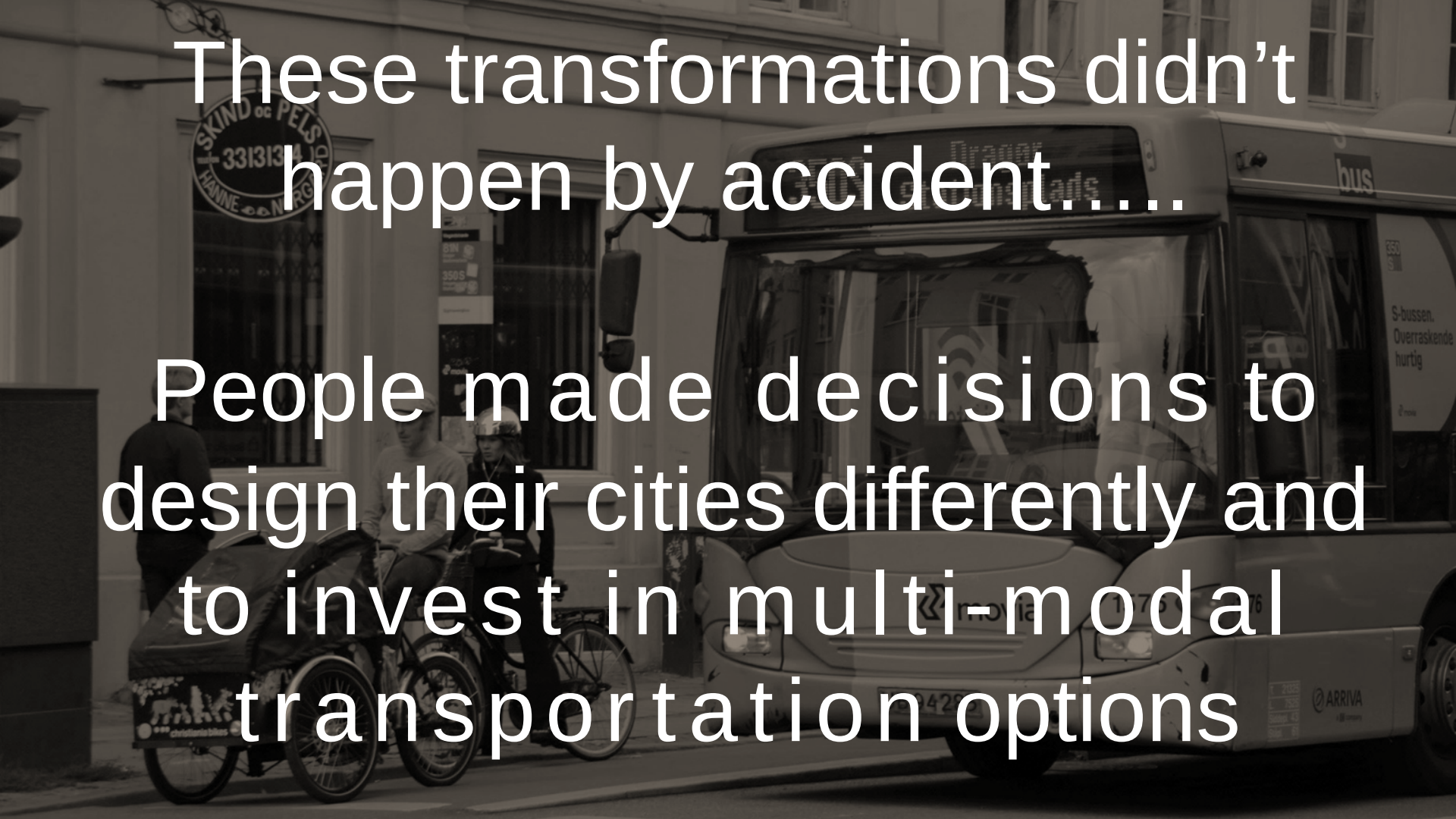
STEAL / BORROW / SHARE / ADAPT



These transformations didn't happen by accident.....

People made decisions to design their cities differently and to invest in multi-modal transportation options

So we have the precedents, we know what's possible, and we are realizing the urgency,.....

Cities are growing, climates are changing, and people are dying…..

and there's still a lot to do and a long way to go!

We need your bold visions,
your technical support,
your advocacy,
and your local action to
get us there!

BLOOMBERG INITIATIVE FOR GLOBAL ROAD SAFETY

1. ENFORCEMENT

2. DATA

3. MEDIA

4. SAFE STREETS & SAFE MOBILITY

PARTNERS:

EMBARQ/ WRI

WB/ Global Road Safety Facility

NACTO/ GDCI

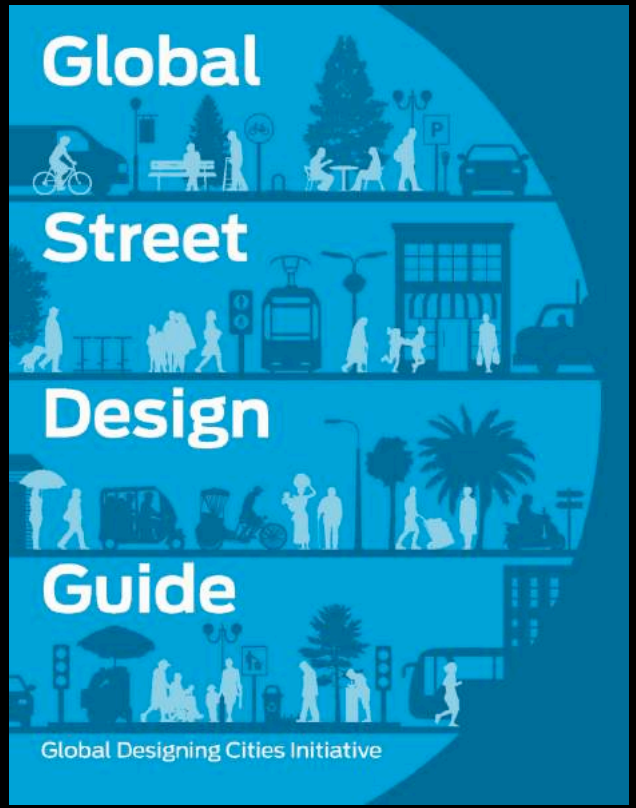
Global Road Safety Partnership

Johns Hopkins Bloomberg School of Public Health

The Union North America

World Health Organization

NACTO / Year 1 / 2015



NACTO / Year 2-5

1. Sao Paulo, Brazil
2. Bogota, Colombia
3. Addis Ababa, Ethiopia

4. Accra, Ghana
5. Bangkok, Thailand
6. Ho Chi Minh City, Vietnam
7. Shanghai, China
8. Mumbai, India
9. Bandung, Indonesia
10. Fortaleza, Brazil

National Association of City Transportation Officials

Urban Street Design Guide Endorsements

USDOT
FHWA Memorandum
States
California
Massachusetts
Minnesota
Tennessee
Utah
Washington

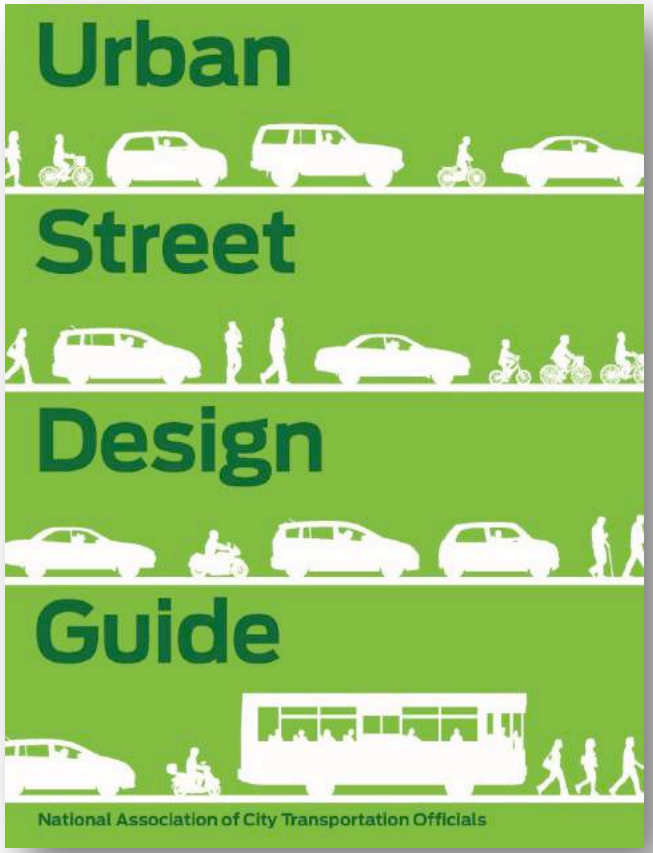
Cities
Arlington, VA
Atlanta
Austin
Baltimore
Bellevue, WA
Boston
Boulder
Brownsville, TX
Charlotte
Chattanooga
Chicago
Davis
Denver
El Paso
Fort Lauderdale
Hoboken
Indianapolis
Louisville
Memphis
Minneapolis
Nashville
New York
Oakland
Philadelphia
Pittsburgh
Phoenix
Portland, OR
Portsmouth, NH
Providence
Rochester, NY
Saint Paul
Salt Lake City
San Diego
San Francisco
Seattle
Somerville, MA
Tacoma, WA
Traverse City, MI
Washington, DC
Counties
Hennepin County, MN
Organizations
Association of Bicycle & Pedestrian Professionals
Urban Land Institute

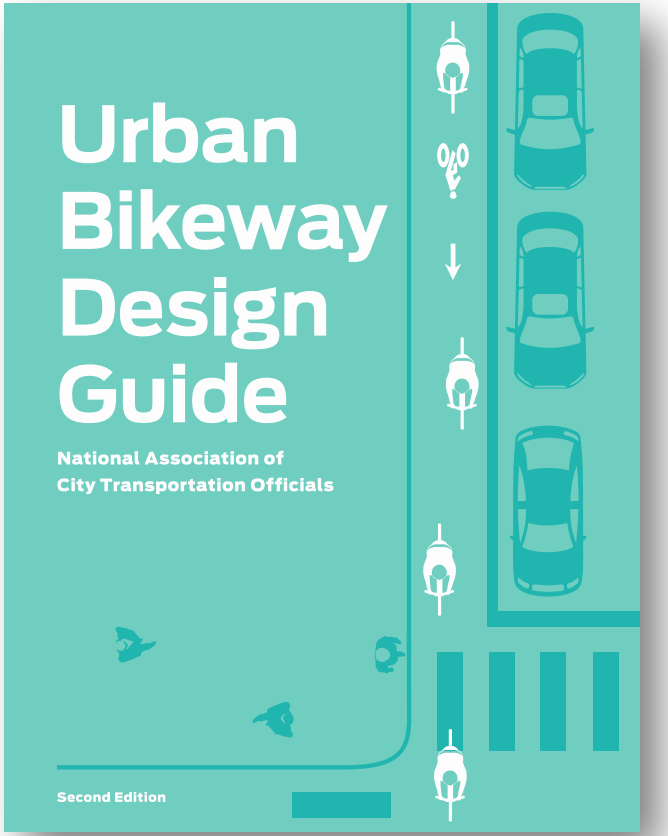
Annual Conference

NACTO Annual Conference

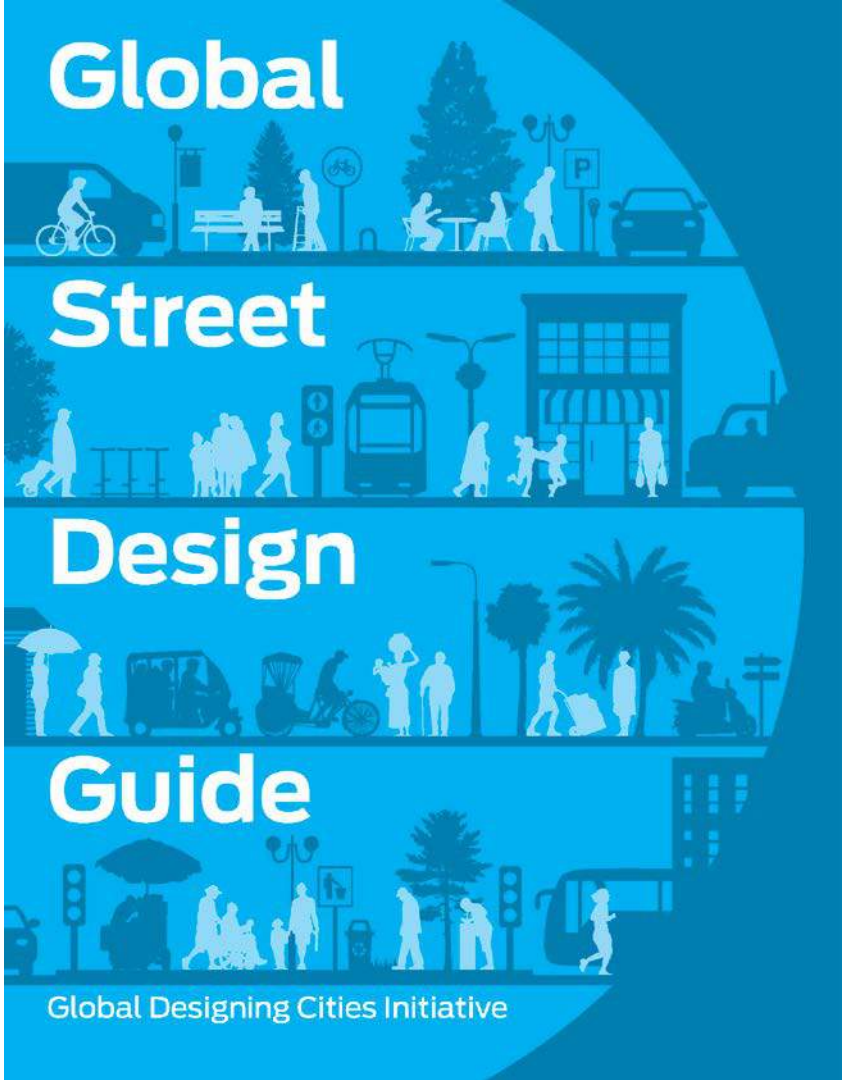
26th-29th Sept 2016, Seattle, United States

Design Guidance



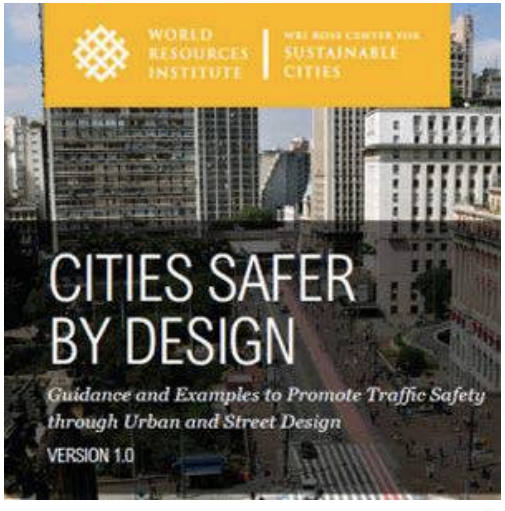


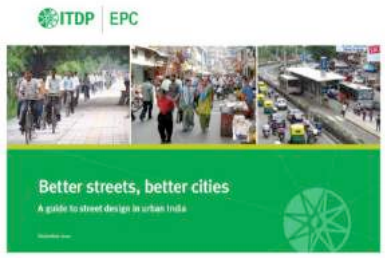
Janette Sadik-Khan



Being Published
In 2016


World Health Organization
GLOBAL STATUS REPORT ON ROAD SAFETY 2015


WORLD RESOURCES INSTITUTE
WRI ROSS CENTER FOR SUSTAINABLE CITIES
CITIES SAFER BY DESIGN
Guidance and Examples to Promote Traffic Safety through Urban and Street Design
VERSION 1.0


ITDP | EPC
Better streets, better cities
A guide to street design in urban India

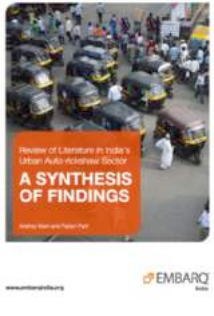

CITY OF JOHANNESBURG COMPLETE STREETS DESIGN GUIDELINE
Complete Streets


The vision and direction for London's streets and roads
Roads Task Force
Executive summary

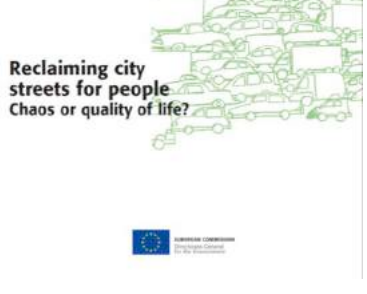

Transport for London
Improving walkability
Good practice guidance on improving pedestrian conditions as part of development opportunities
September 2005


STREETS AS TOOLS FOR URBAN TRANSFORMATION IN SLUMS:
A STREET-LED APPROACH TO CITYWIDE SLUM UPGRADING
UN HABITAT
FOR A BETTER URBAN FUTURE


Water sensitive urban design
Creating more liveable and water sensitive cities in South Australia


A SYNTHESIS OF FINDINGS
EMBARQ


Abu Dhabi Urban Street Design Manual


Reclaiming city streets for people
Chaos or quality of life?

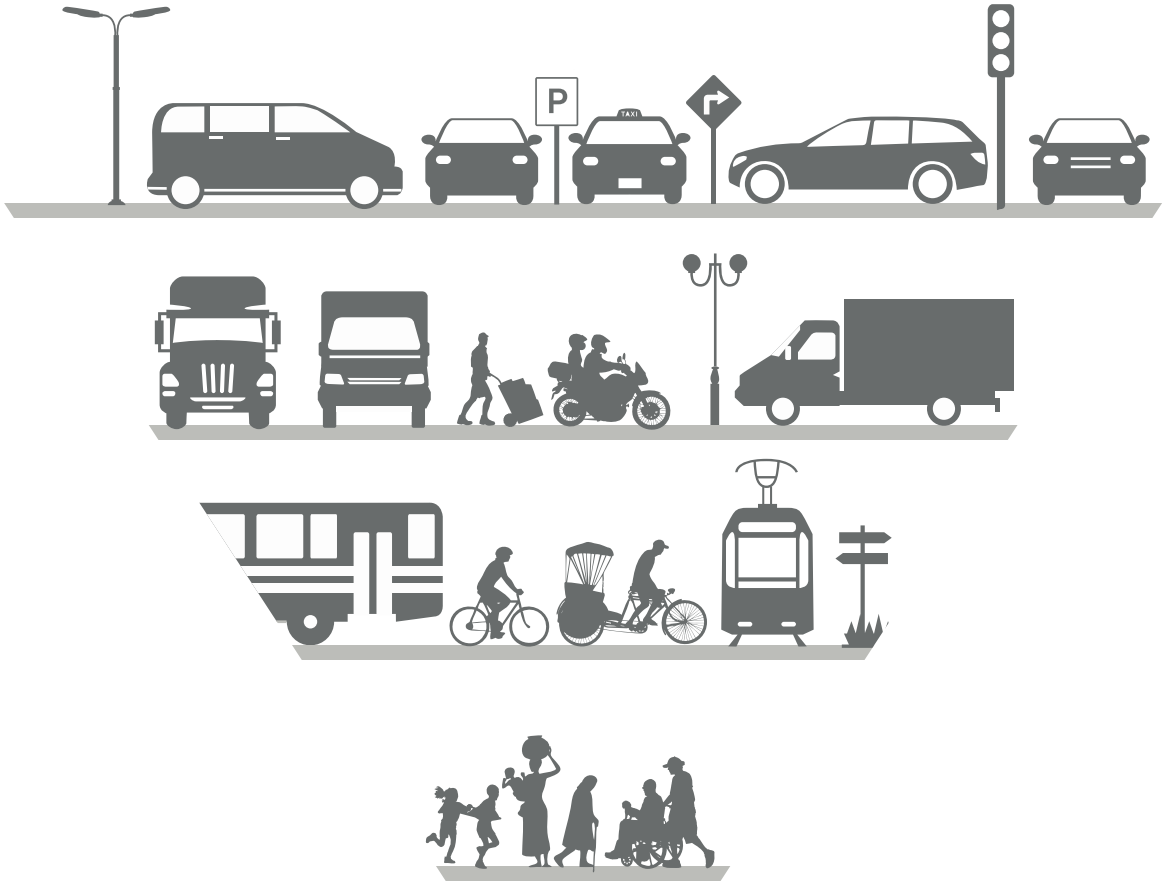

Bus Rapid Transit Planning Guide
June 2007

From Global Agenda to Local Action

Inspire Leaders

Inform Engineers, Planners and Designers

Empower Communities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TAXI


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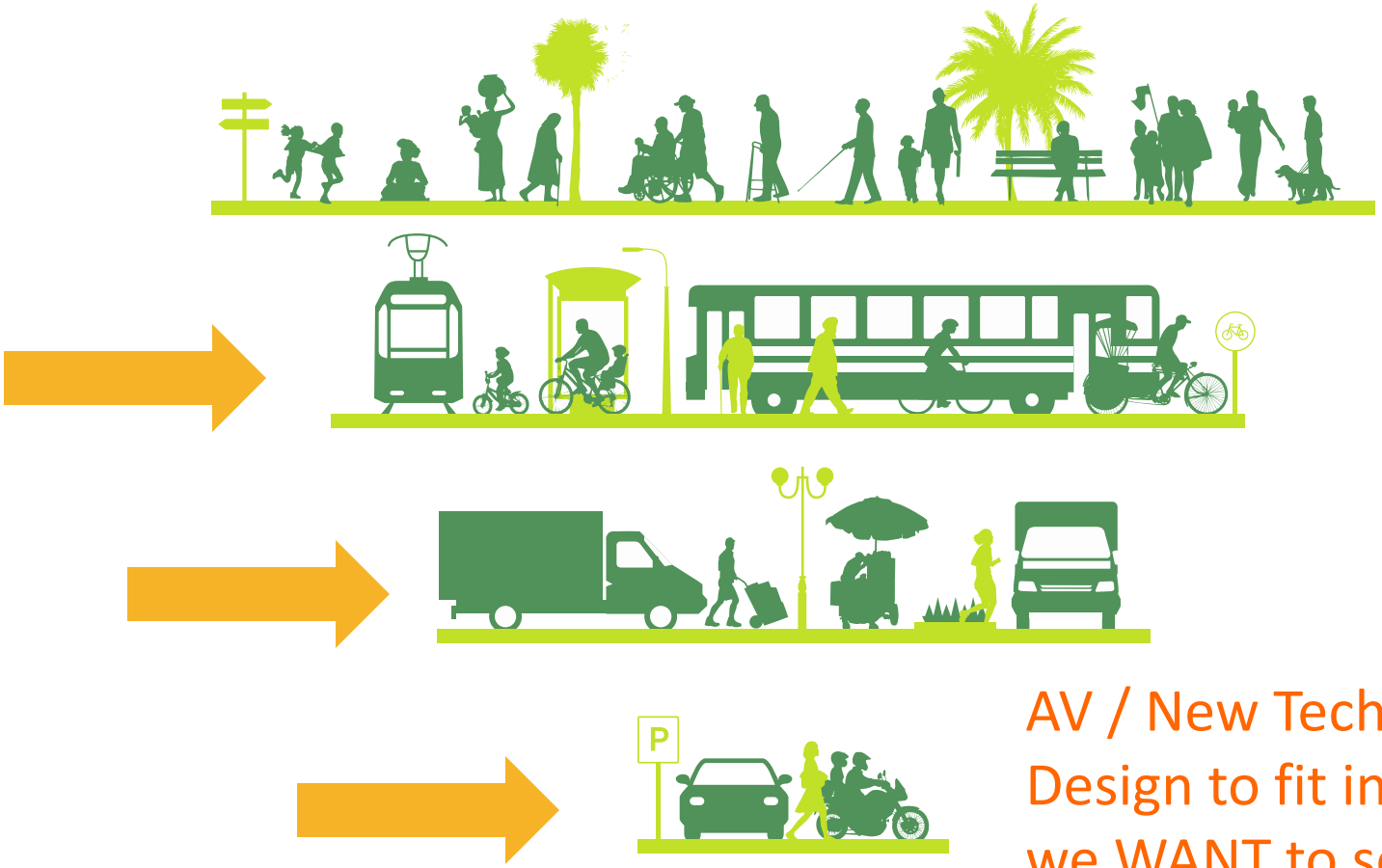


AV / New Technologies =
Design to fit into the cities
we WANT to see

If we don’t get this part right, we will only be repeating the mistakes of last century!

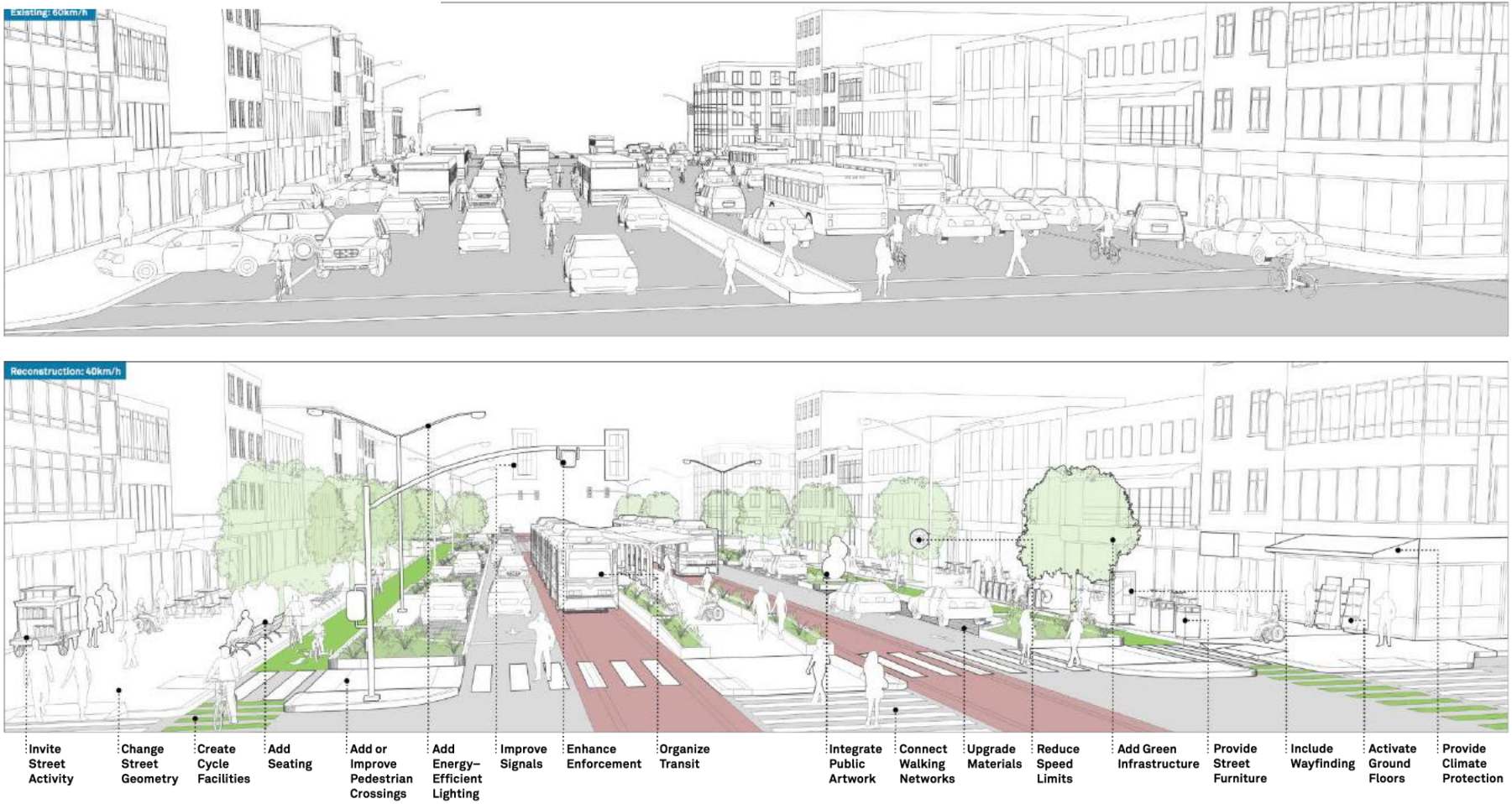
Global Network

40+ countries
70+ cities

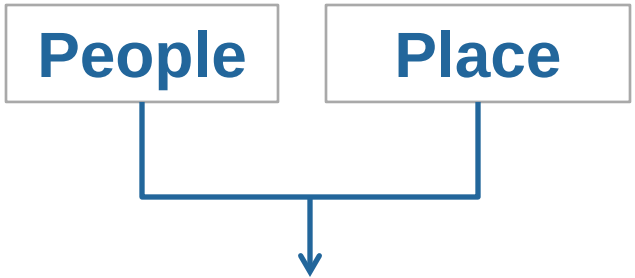
Global Network

40+ countries
70+ cities

What Is Possible



A New Approach to Street Design



Desired Outcomes

- Health and Safety
- Livability and Quality of Life
- Multi-modal Access
- Environmental Sustainability
- Economic Sustainability
- Equity

DESIGN PRINCIPLES

Streets for the Most Vulnerable

Streets for Safety

Streets for Health

Streets are Public Space

Streets are Ecosystems

Streets are Multimodal

Streets are Contextual

Streets are Great for Business

Streets are Multidimensional

Streets Can Change! Act now!

DESIGNING FOR PEOPLE

Streets Users

Streets Users - Pedestrians

Streets Users - Cyclists

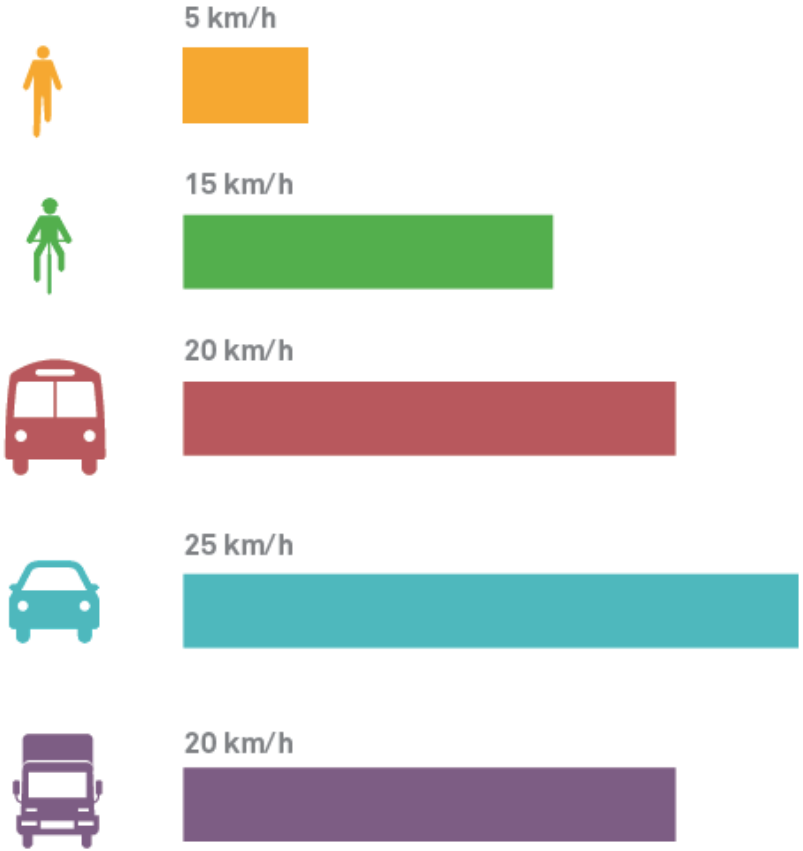
Streets Users – Collective Transport

Streets Users – Personal Motor Vehicles

Streets Users – Moving Goods & City Services

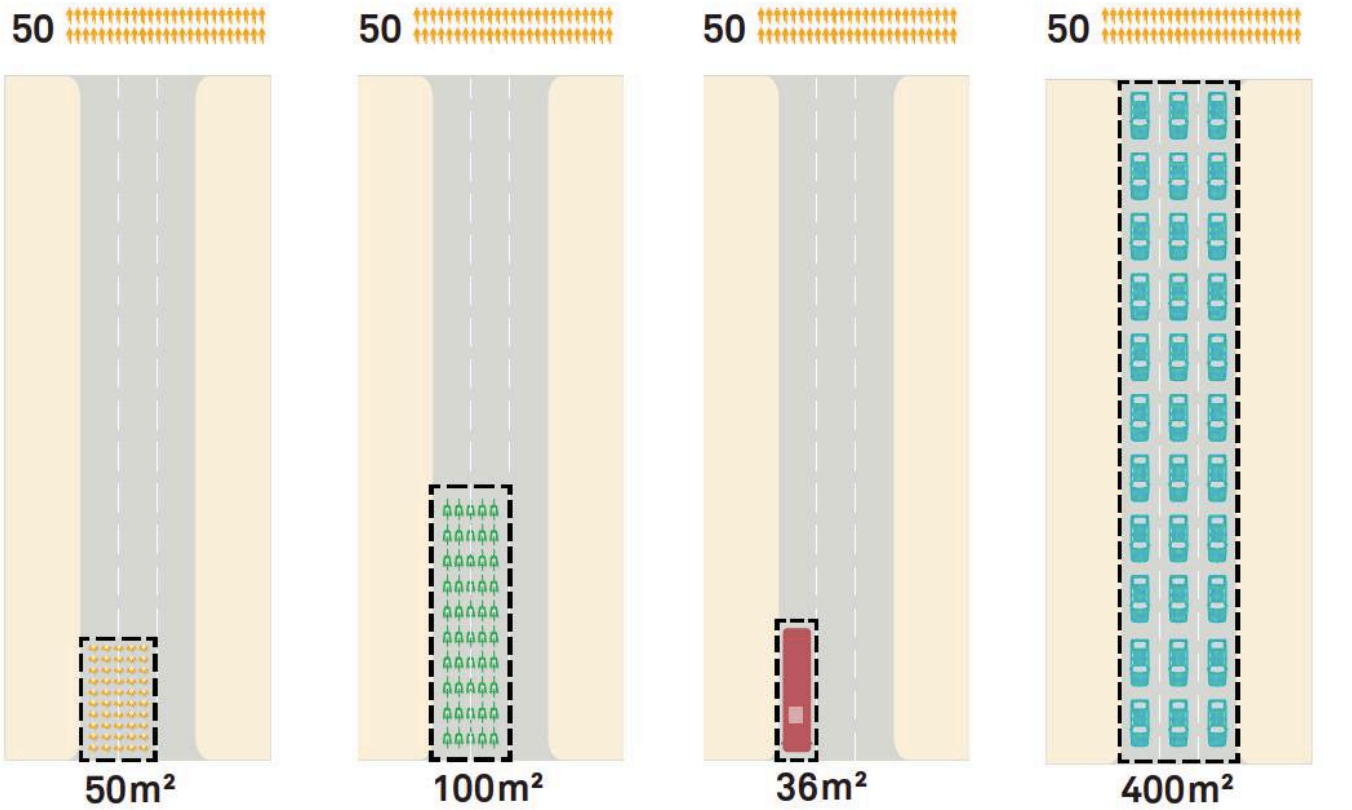
Streets Users - Business

Streets Users - Comparison



Streets Users – User Comparison

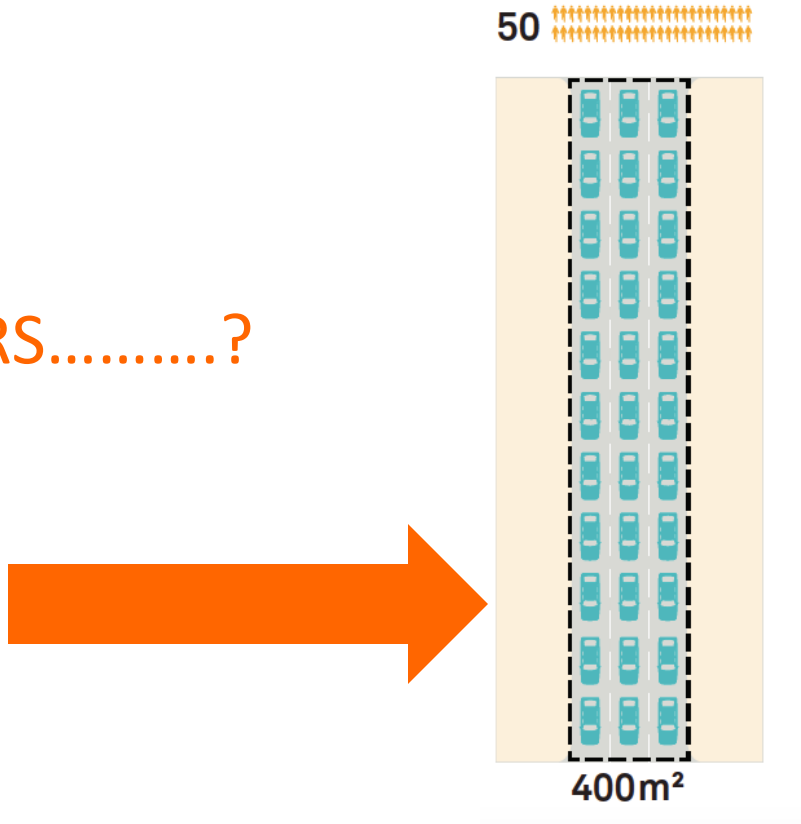
Space to move
50 people



1 MILLION NEW PEOPLE…….

Space to move
50 people

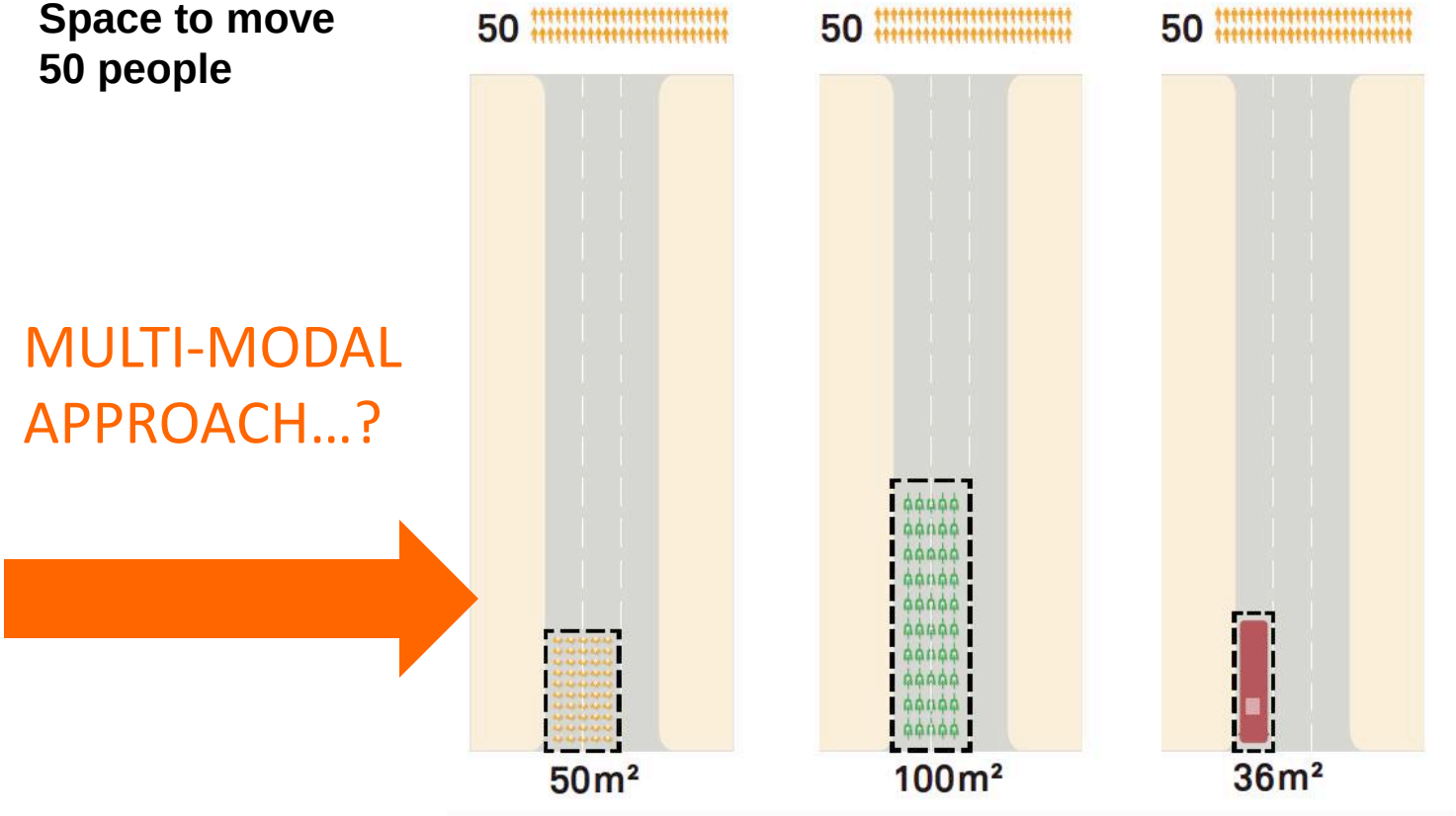
1 MILLION NEW CARS…….?



1 MILLION NEW PEOPLE…….

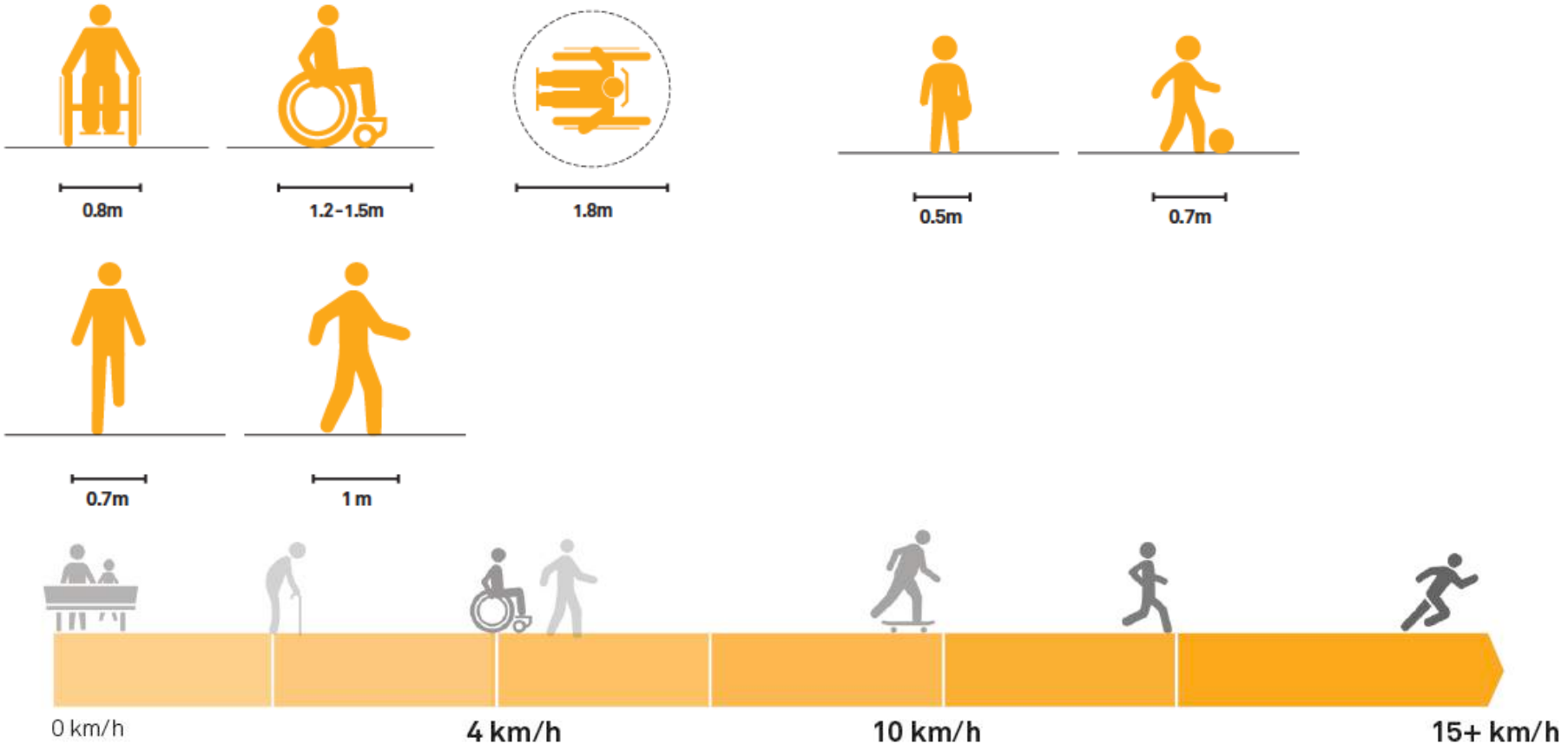
Space to move
50 people

MULTI-MODAL
APPROACH…?



Pedestrians

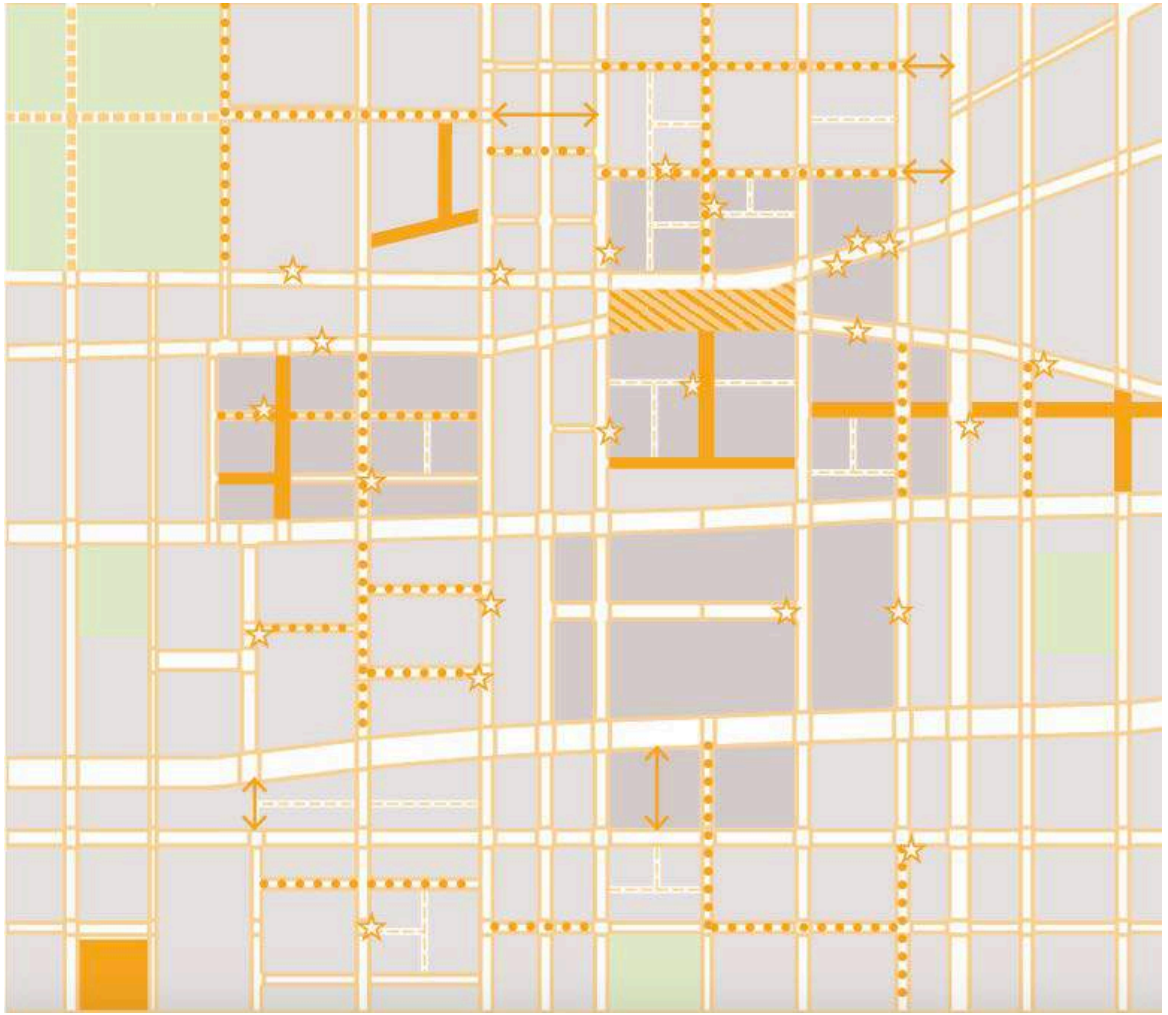
Speed, Variations and Dimensions



Pedestrians

Key Network Considerations

- Connectivity
- Safety
- Permeability
- Choice
- Human Scale and Complexity
- Key Destinations
- Variety of Users
- Volume of Users
- Green Corridors
- Character and Identity

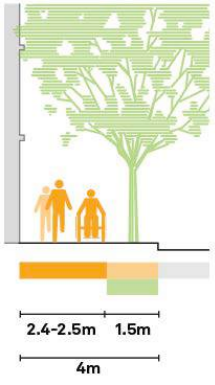


Pedestrians

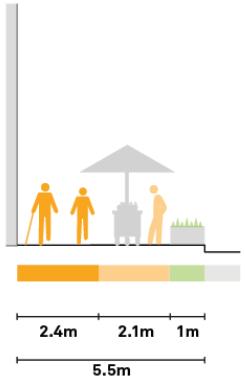
Geometry

Residential Sidewalk

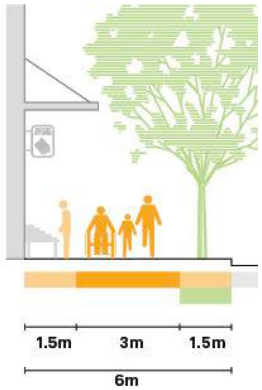
Residential Ribbon Sidewalks



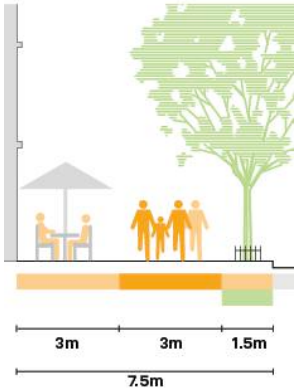
Residential Sidewalk with Trees



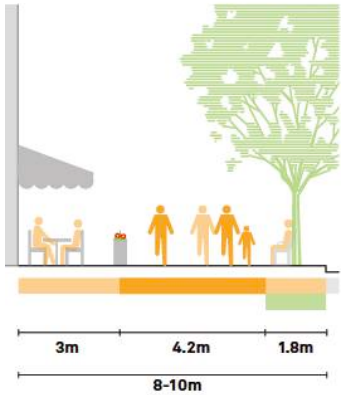
Neighborhood Main Street 1



Neighborhood Main Street 2



Medium Commercial Sidewalks



Large Commercial Sidewalks

Pedestrians

Elements


Sidewalks


Pedestrian Crossings


Pedestrian Refuge Islands


Curb Extensions


Accessibility Ramps


Vision-Impaired Guidance


Signage and Wayfinding


Pedestrian Countdown Signals + Clocks


Lighting


Seating


Water Fountains


Weather Protection


Curbs


Waste Receptacles

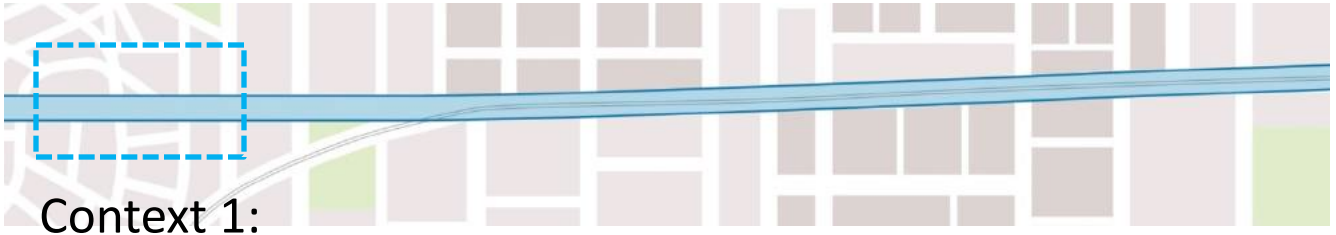

Active Building Edges


Trees and Landscaping

DESIGNING FOR PLACE

Local Culture & Character
Street Activity
Building Edges
Street Scale & Width
Block Size
Destinations
Mix of Uses
Density
Network & Hierarchy
Natural Environment
Mode Share

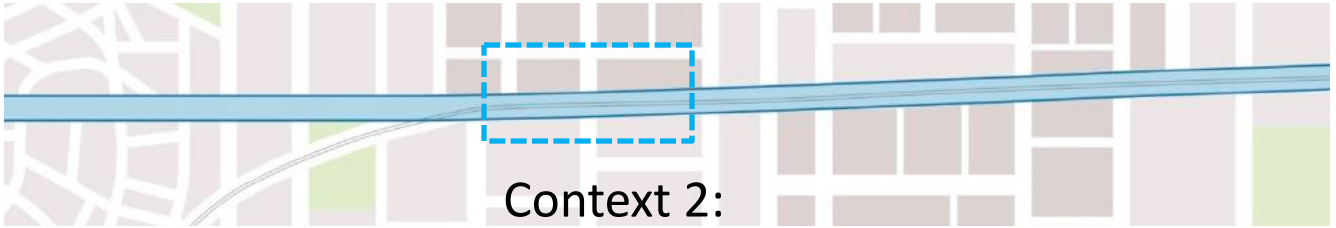
Context Changes!



Context 1:

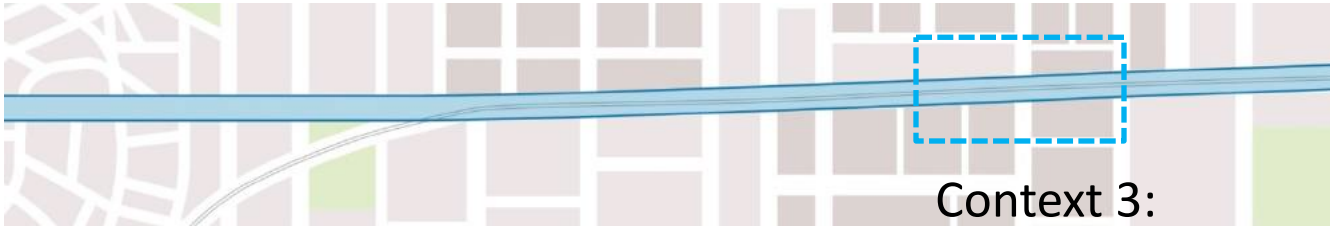
Neighborhood Main Street

Context Changes!



Context 2:
Central Two-way Street

Context Changes!



Context 3:
Transit Mall

STREET TRANSFORMATIONS

Streets

Pedestrian Priority Streets

1. Pedestrian Only Streets
2. Laneways and Alleys
3. Parklets and Pocket Parks
4. Pedestrian Plazas

Shared Streets

5. Commercial Shared Streets
6. Residential Shared Streets

Neighborhood Streets

7. Residential Streets
8. Neighborhood Main Streets

Large Streets

9. Central One-way Streets
10. Central Two-way Streets
11. Transit Malls
12. Large streets with Transit
13. Grand Streets

Special Conditions

14. Historic Streets
15. Elevated Structure Improvements
16. Elevated structure Removal
17. Streets to Stream
17. Temporary Closures
19. Post Industrial Revitalization
20. Waterfront and Parkside Promonade
21. Streets in Informal Settlements

Neighborhood Main Street

Neighborhood Main Street

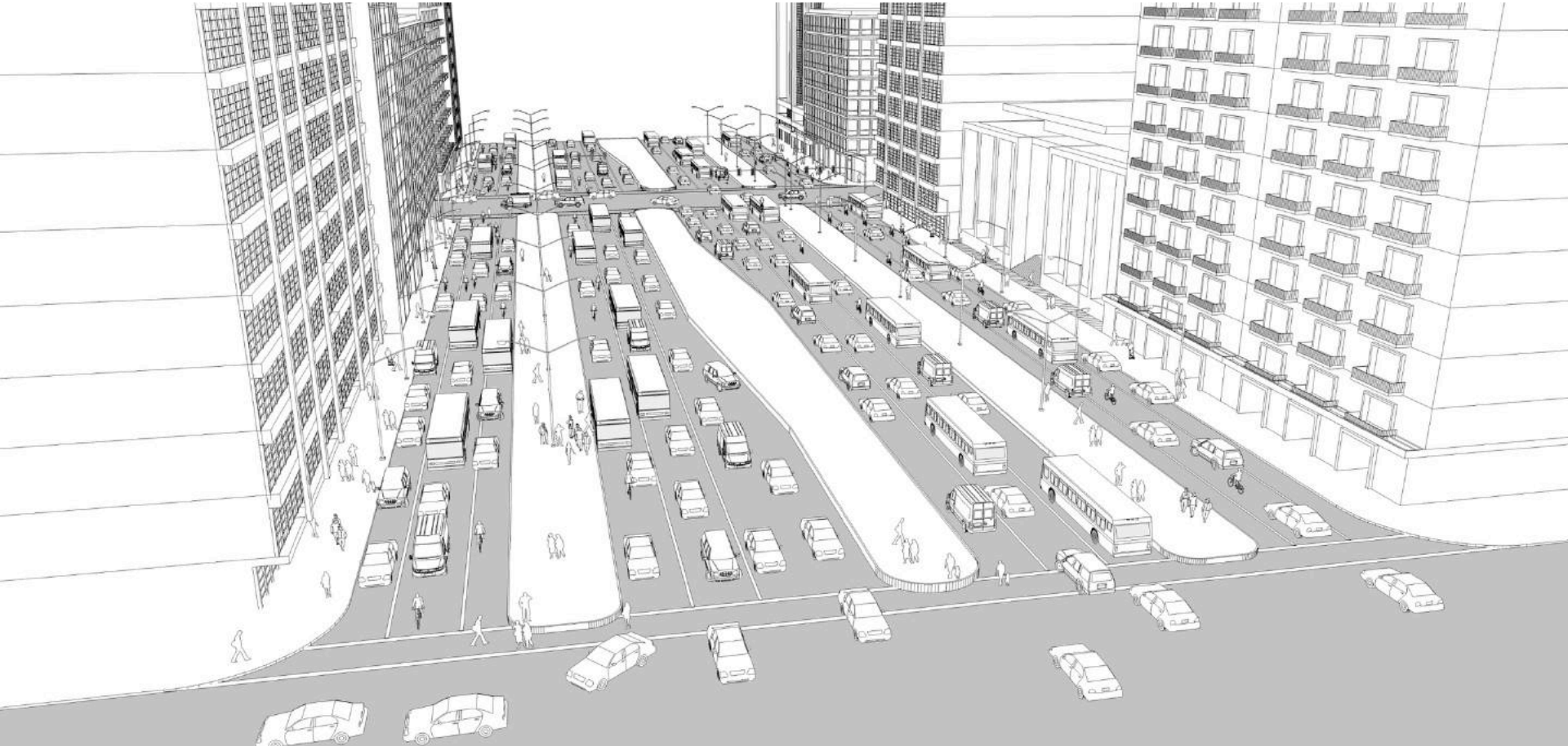
Shared Streets in Residential Areas

Shared Streets in Residential Areas

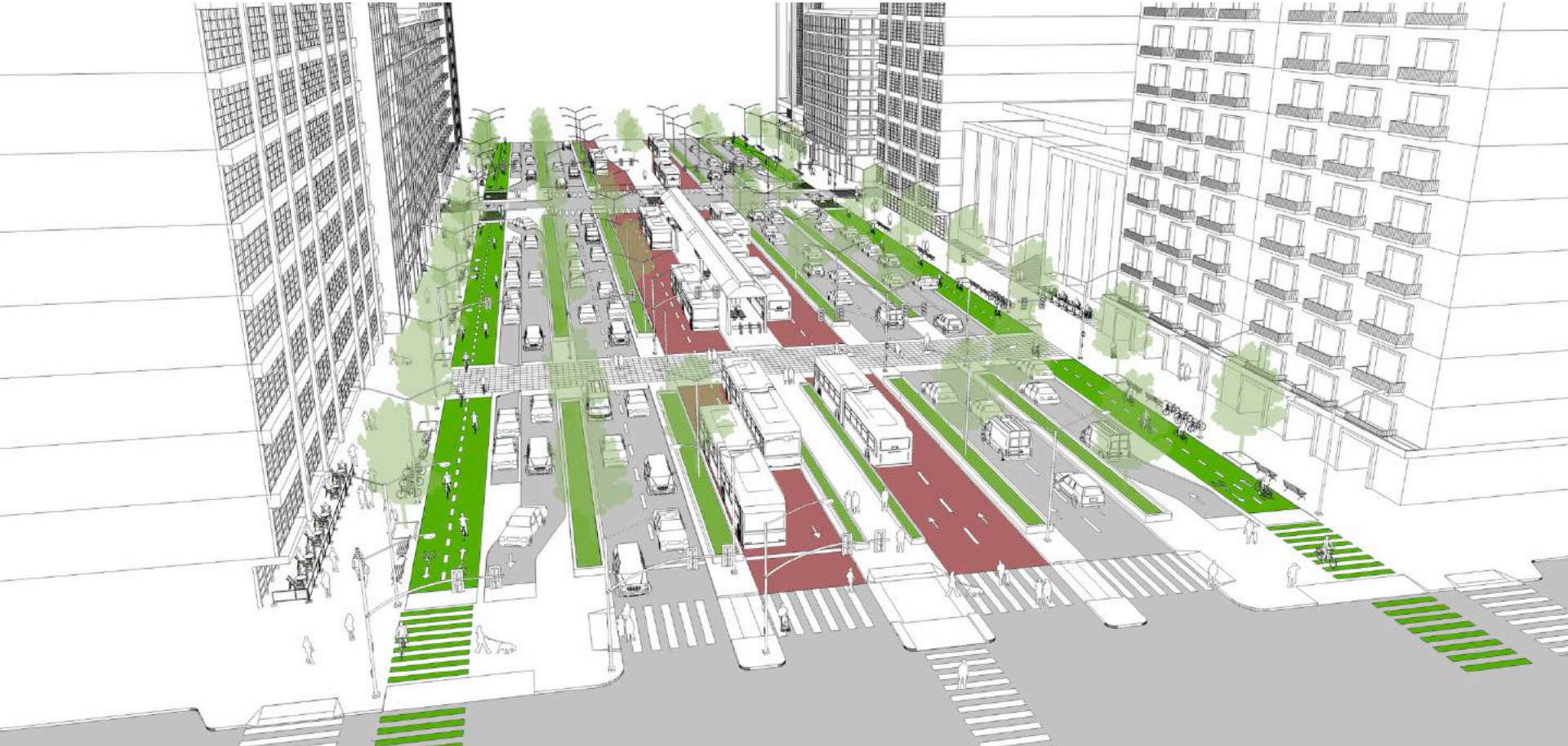
Shared Streets in Commercial Areas

Shared Streets in Commercial Areas

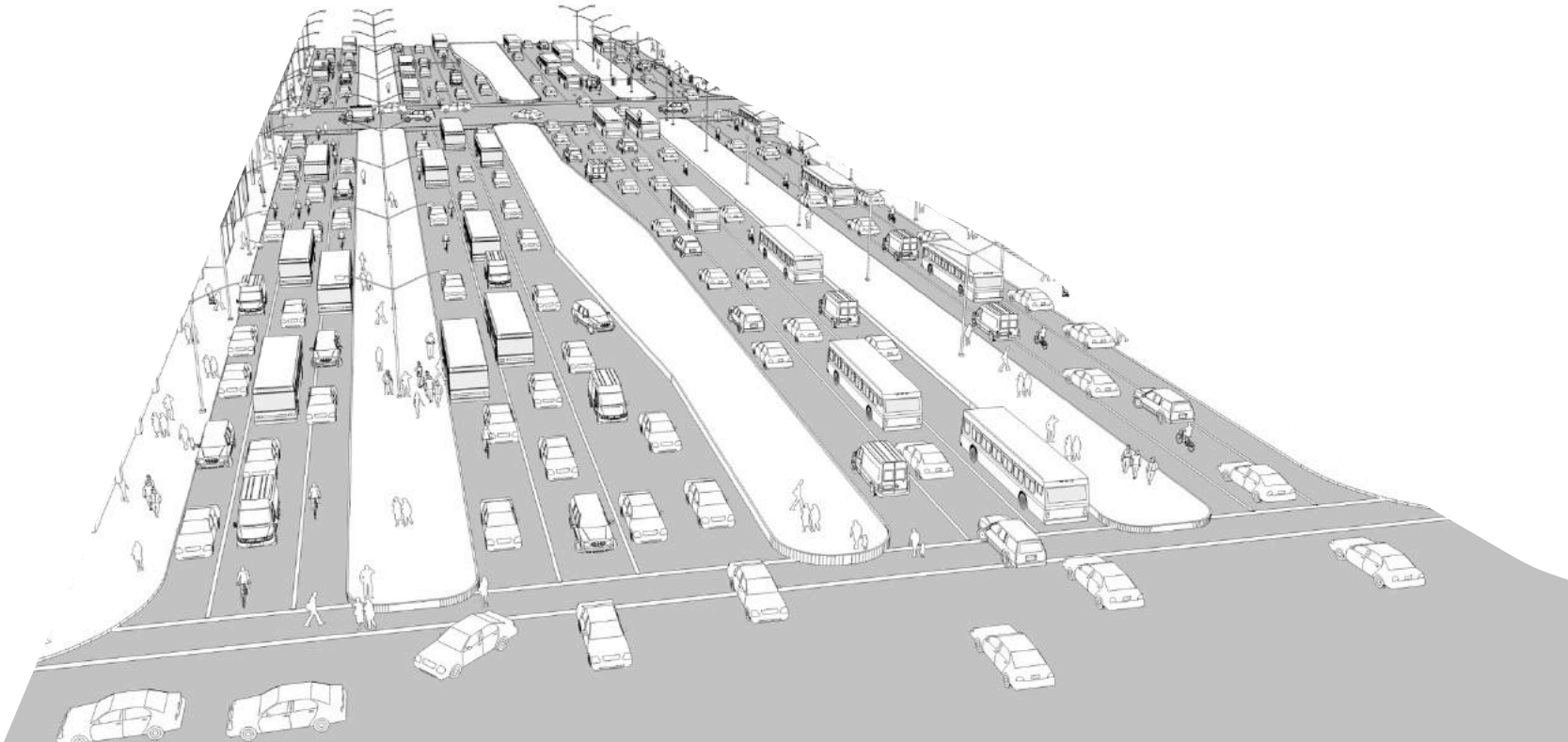
Grand Streets



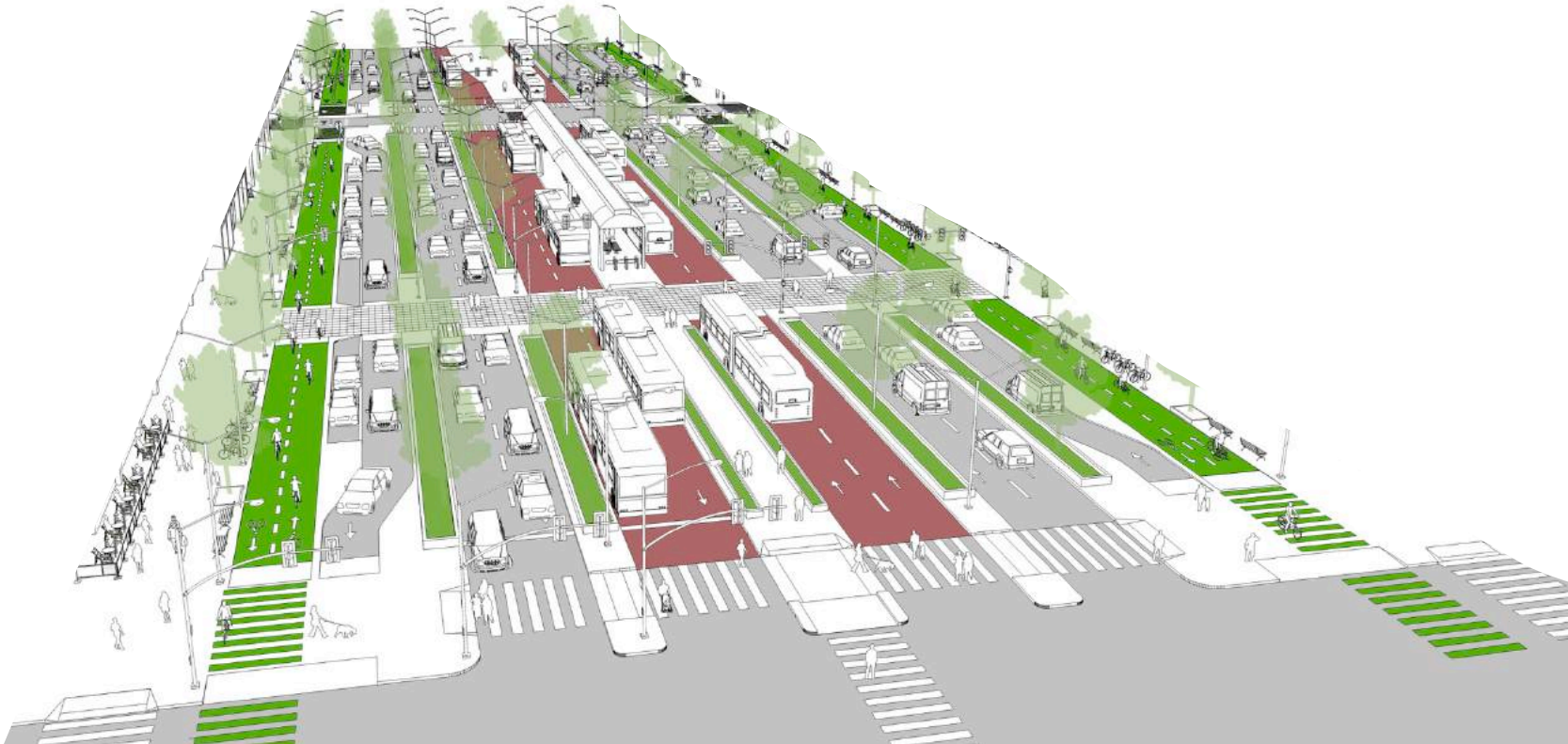
Grand Streets



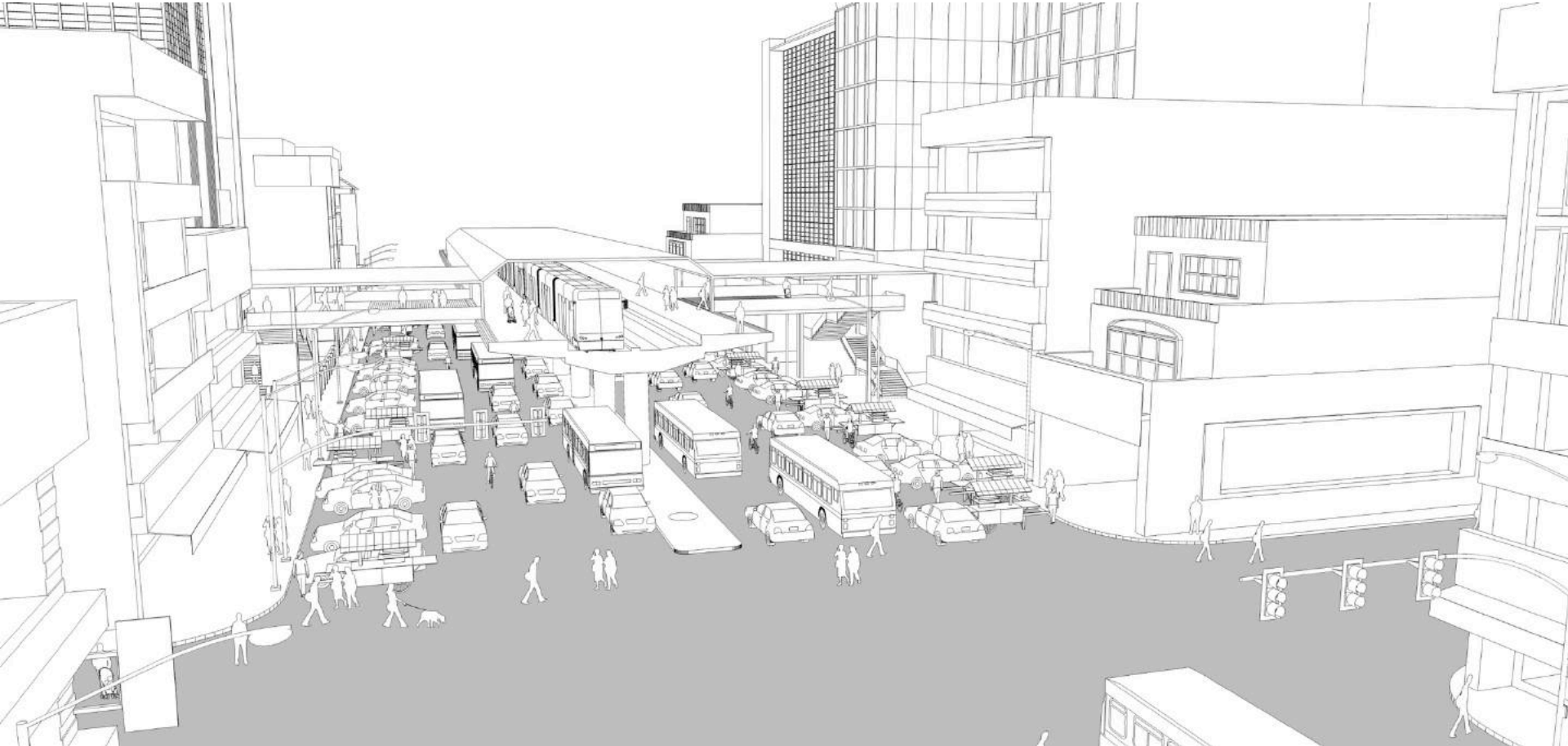
(What if…..Harbour Bridge?)



(What if…..Harbour Bridge?)

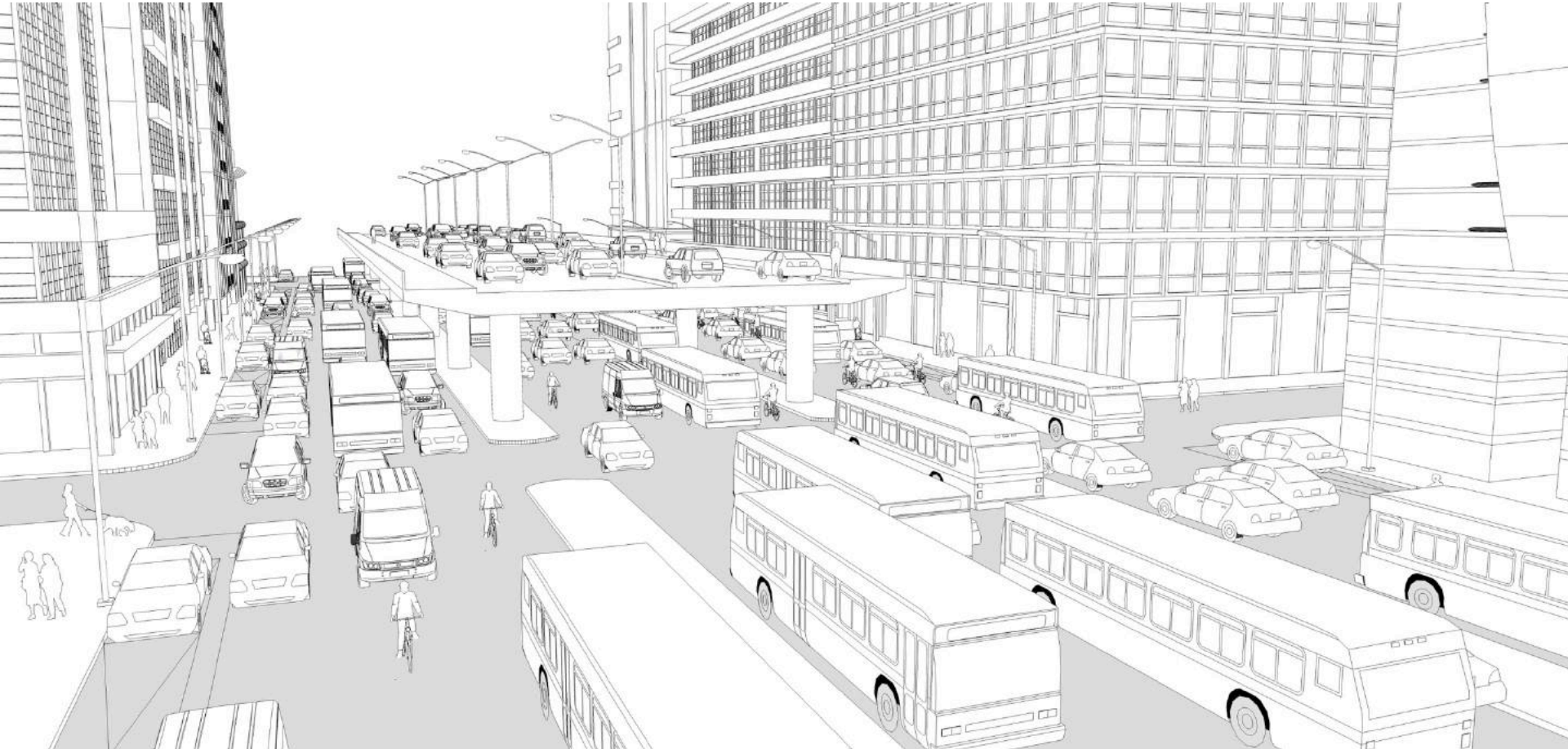


Streets with Elevated Structures



Streets with Elevated Structures

Elevated Structure Removal



Elevated Structure Removal

Streets - to - Streams

Streets - to - Streams

Streets - to - Streams

(What if…..Queen Street?)

Transit Priority Streets

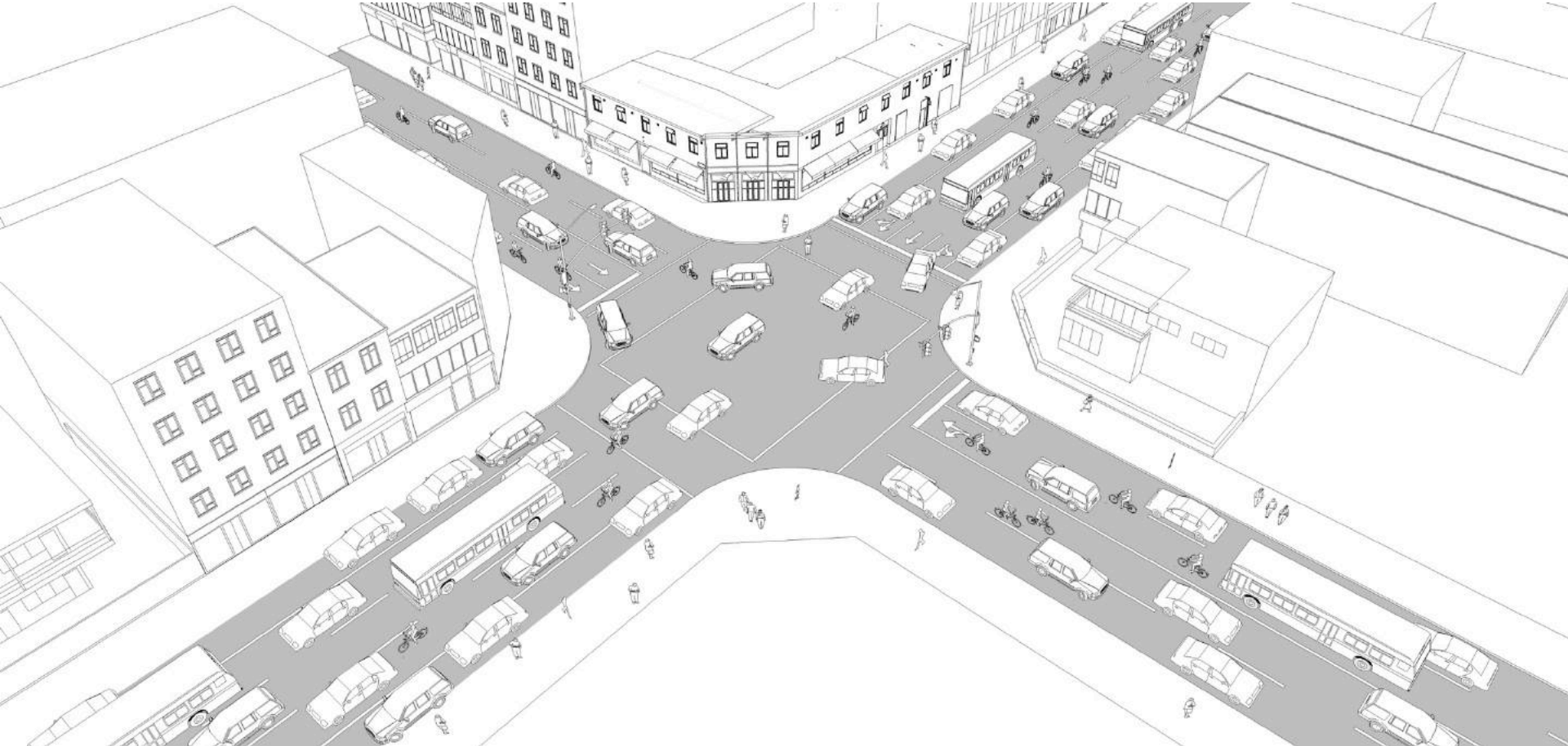
Transit Priority Streets

Pedestrian Priority Streets

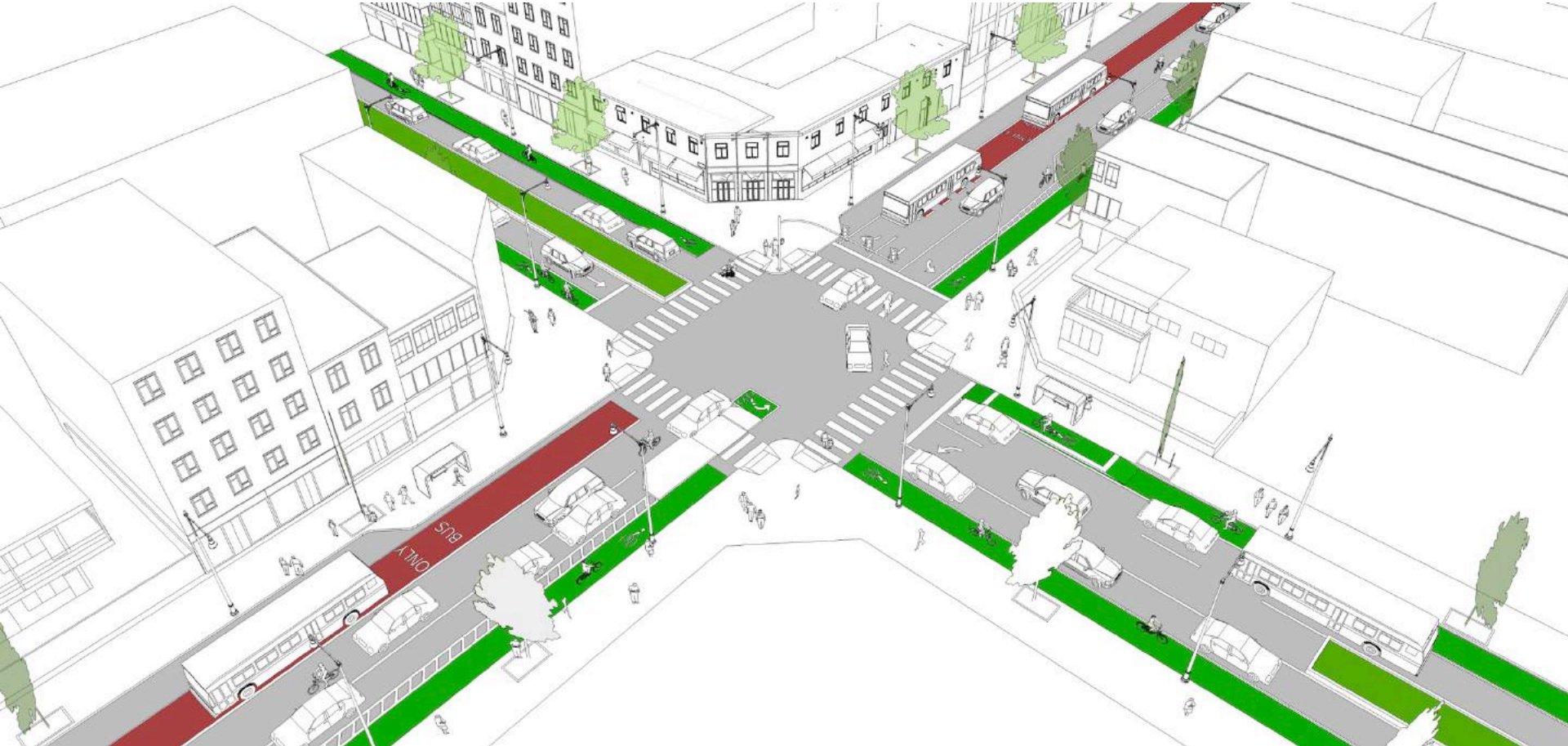
Pedestrian Priority Streets

INTERSECTION TRANSFORMATIONS

Two-way meets One-way



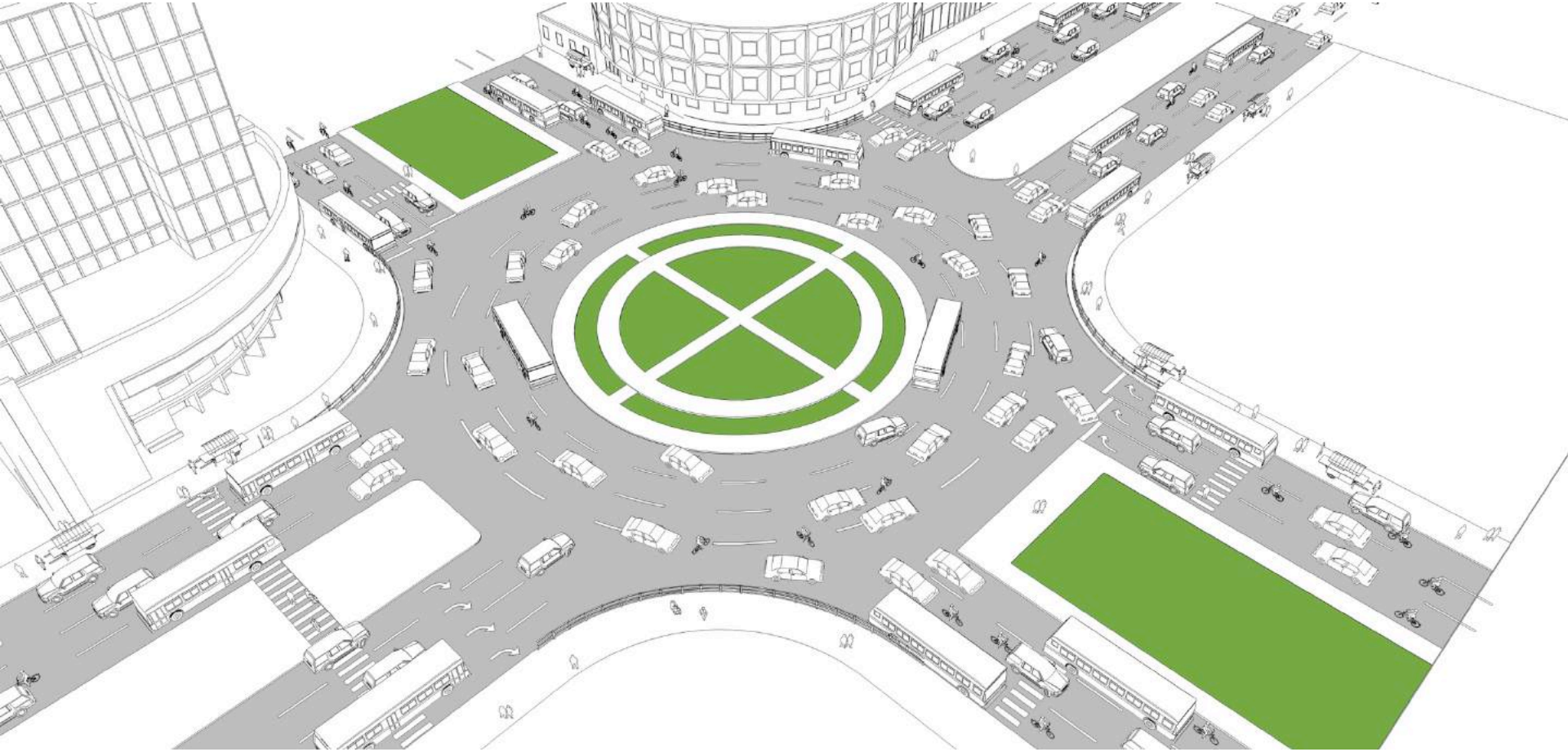
Two-way meets One-way



Raised Intersections

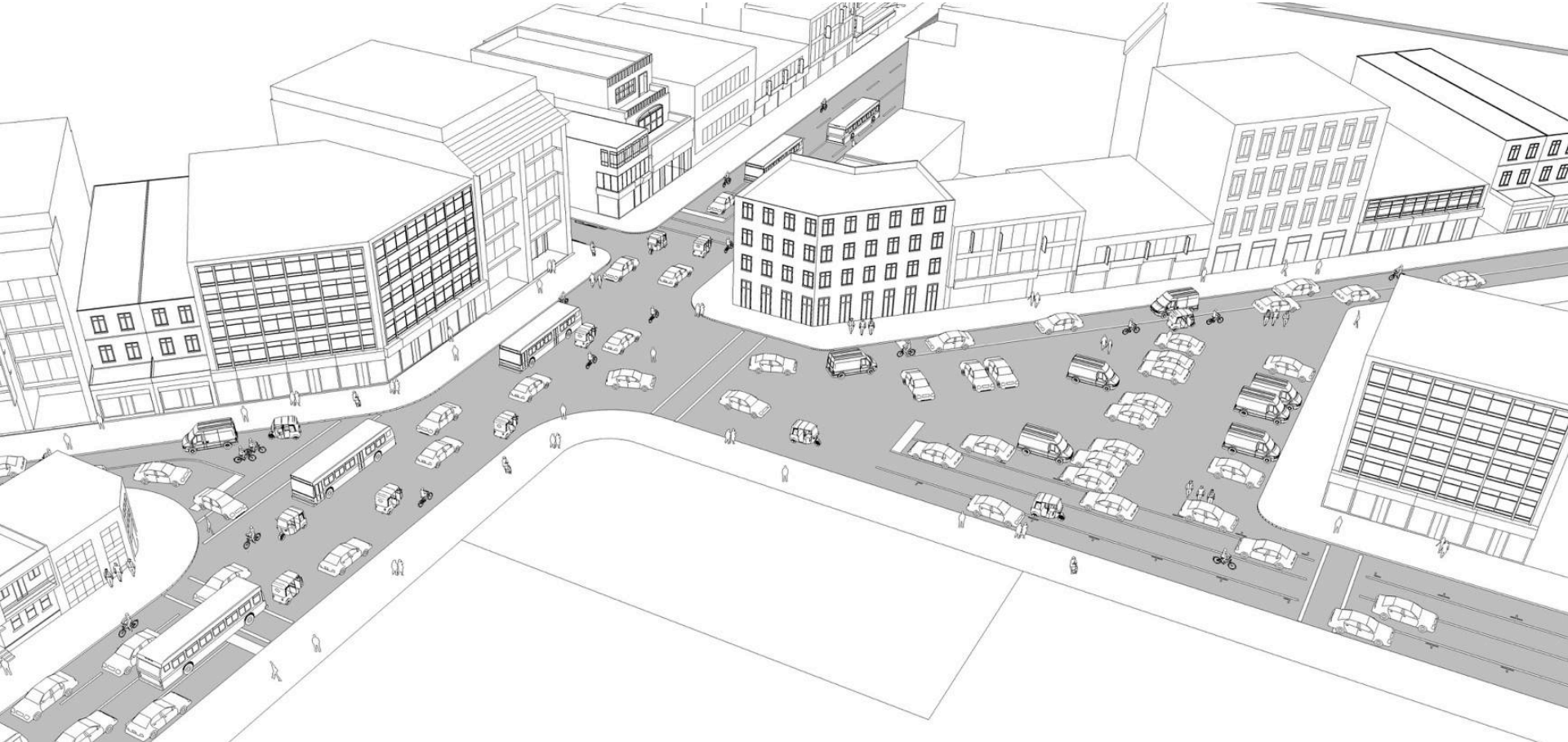
Raised Intersections

Squaring the Circle



Squaring the Circle

Public Plazas



Public Plazas

PROCESS + METRICS

Who's Involved in Shaping Streets?

- Transportation departments and engineers
- Consumer affairs organizations
- Transit authorities and operators
- Park departments
- Construction and public works
- Sanitation and waste management
- Environmental protection
- Departments and organizations supporting people with disabilities
- Planning departments
- Building departments

Getting the right people to the table at the right stage of the project!

- Utility companies
- Urban designers, landscape architects, and architects
- Health professionals
- Historic preservation organizations
- Advocacy groups and neighborhood associations
- Private property owners and tenants
- Local businesses, vendors, and kiosk owners
- Street operators
- Local media
- Developers and development banks
- Academic institutions
- Enforcement entities

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- Environmental protection
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- Planning departments
- Building departments

What do they care about/ their interests?

- Utility companies
- Urban designers, landscape architects, and architects
- Health professionals
- Historic preservation organizations
- Advocacy groups and neighborhood associations
- Private property owners and tenants
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Measuring and Evaluating the Street

Physical & Operational Changes

- Length and width of new and improved **sidewalk**
- Added length of **cycle facilities**
- Added length of **dedicated transit facilities**
- Improved **signal timing** for pedestrian crossing length
- Number of additional **trees planted**

Measuring and Evaluating the Street

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Changes in Use & Activity

- **Shift in mode share** and user counts
- New or changed non-mobility **activities**
- Change in average **vehicular speeds**
- User **preferences**
- Volume of **water treated**

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Changes in Use & Activity

- **Shift in mode share** and user counts
- New or changed non-mobility **activities**
- Change in average **vehicular speeds**
- User **preferences**
- Volume of **water treated**

Resulting Impact

- **Road safety** (KSI/ fatalities and injuries by location)
- **Respiratory and chronic disease rates**
- **Air Quality**
- Total **CO2** from Transportation
- Water volumes diverted from city system.

Measuring and Evaluating the Street

What

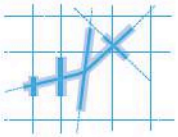
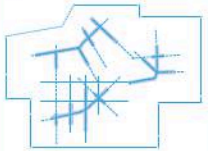
When

Why

How

Where

	What to Measure	When to Measure	Why It's Important
Measuring Physical and Operational Changes	The physical and operational changes that the specific project has had on the street.	**Before:** Measure and document existing site conditions. **After:** Measure immediately after project completion. 	• For benchmarking against prior conditions • To build an inventory and database of the city's infrastructure • To track financial investment • To demonstrate and communicate short term achievements and progress to stakeholders.
Measuring Shifts in Use and Function	The change in behavior and use of the street. Identify how and why it functions differently, and the level of satisfaction with the changes.	**Before:** Observe and document existing use and function. Note locations on site plans. **After:** Measure periodically after 1, 3 and 6 months, and after 1 year. Measure during different seasons and at varying times of the day and week. 	• To evaluate success of intended change in behavior and function • To measure user satisfaction • For benchmarking against prior conditions and other projects • To build evidence for sustainable streets • To learn lessons and inform future street designs
Measuring Resulting Impacts	The impacts of how the project contributes to larger city and regional goals and principles of: • Public Health and Safety • Quality of Life • Environmental Sustainability • Economic Sustainability	**Before:** Identify metrics relevant to project goals and priorities. **After:** Measure periodically after multiple months, and after 1, 2 and 3 years. 	• To evaluate long term impacts and benefits • To benchmark against larger city-wide goals and priorities • To build evidence • To measure return on investment • For communication and building support for sustainable streets

How to Measure	Where to Measure	Example Metrics
• Before and after photos and videos • Before and After Plans • Before and After Sections	Project site and immediate surroundings 	• Length and width of new and improved sidewalk • Added length of cycle facilities • Added length of dedicated transit facilities • Improved signal timing for pedestrian crossing length • Number of additional trees planted
• Before and after photos and videos • On-site counts and observations. Note locations. • Quantitative analysis • Qualitative surveys	Project site, connecting networks, and surrounding neighborhood. 	• Shift in mode share and user counts • Increased e • New or changed non-mobility activities • Change in average vehicular speeds • User preferences • Volume of water treated
• Quantitative analysis • Qualitative surveys • Compare census results • Environmental analysis	Project, neighborhood, network and city-wide scale. Choose scale relevant to specific metrics. 	• Road safety (KSI/ fatalities and injuries by location) • Respiratory and chronic disease rates • Air Quality • Total CO2 from Transportation • Water volumes diverted from city system.

Global Case Studies

Grand Streets: Avenida 9 de Julio, Buenos Aires, Argentina

LOCATION: **Montserrat, Buenos Aires, Argentina**

CONTEXT: **High–density mixed–use**

RIGHT–OF–WAY: **140m**

SIZE: **2.7 km**

COST: **150 million ARS (15.9 million USD)**

FUNDING: **Public**

MAX. SPEED: **60km/h**

Credit: City of Buenos Aires

Global Case Studies

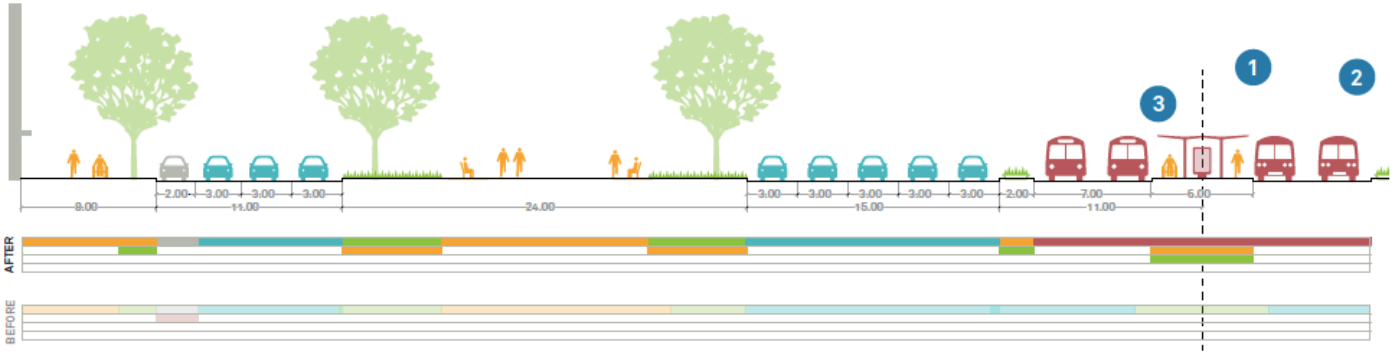
Grand Streets: Avenida 9 de Julio, Buenos Aires, Argentina

Key Elements

1. New four–lane, center–running BRT transitway replacing 4 mixed–traffic travel lanes.
2. Level–boarding central platform.
3. Planted side medians.
4. Central walk–through pedestrian paths connecting all the stations on the avenue.
5. Pedestrian markings and LED signals and countdown clocks added to connect stations.

Users–bar legend:

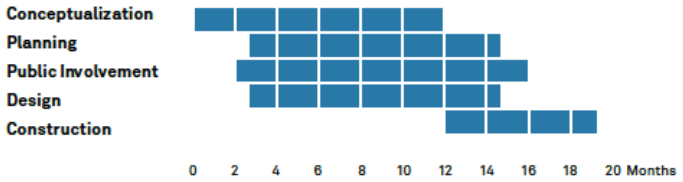
- Pedestrian space
- Cycles
- Transit
- Mixed traffic
- Landscape
- Parking



NOTE: The section above illustrates half of the width of the street.

Project Timeline

January 2012–July 2013



Evaluation

–98%

Decrease in the number of crashes since the creation of Metrobus.

–32%

Decrease in travel times on the avenue.

–63%

Decrease in bus travel times due to BRT implementation.

–5,615

Reduction of tons of CO_2 equivalent per year.

Global Case Studies

Grand Streets: Avenida 9 de Julio, Buenos Aires, Argentina

Keys to Success

Interagency coordination.

Vehicle fleet upgrade and driver training.

Context–oriented design.

Public participation and involvement.

Commitment from the city to improve the transit infrastructure along the corridor.

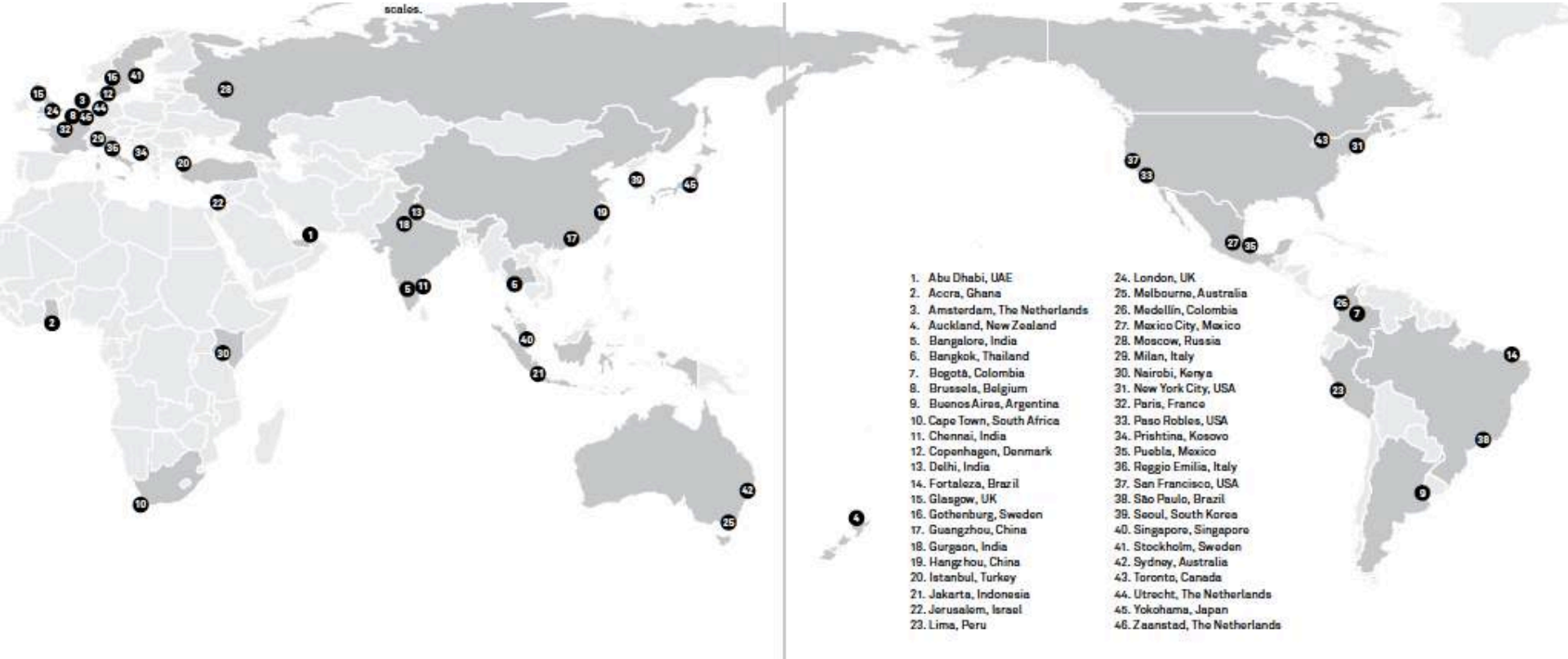
Involvement

Public agencies
City of Buenos Aires, federal government, bus operators.

Citizen associations and nonprofits
Local nonprofits and associations of residents, bus drivers, taxi drivers, and shopkeepers.

Credit: City of Buenos Aires

Another 20 case studies from around the world!



Fort Street in Auckland

Location: Auckland CBD, New Zealand

Population: 1.4 Million
Metro: 1.5 Million

Context: Mixed-use

Right-of-way: 19–20m

Size: Area in and around Fort Street

Cost: 23 million NZD (16 million USD)

Funding: CBD targeted rate

Project Sponsors: Manager, CBD Projects, Auckland City Council

Max. speed: N/A - No posted speed

A Network of Shared Streets

Before

After

Photos Auckland Council

The transformation of Fort Street into a shared street resulted in a 54% increase in pedestrian volumes and 47% increase in consumer spending.

Overview

Fort Street showcases the way that shared streets can turn a district into a destination, increasing visitors for shopping and other activities.
It is one of several new shared spaces implemented in Auckland's Central Business District in recent years to enhance pedestrian connectivity and provide a quality public realm.

Goals

- Better integrate the area into the surrounding street network.
- Prioritize pedestrians.
- Create a distinctive public space.
- Create a space that supports businesses and residents and provides opportunities for a variety of activities.
- Provide a high-quality, attractive, and durable street that contributes to a sustainable and maintainable city center.

Keys to Success

Collaboration with key stakeholders.

Pre- and post-monitoring and evaluation in order to communicate the impacts of the project.

Testing design variations.

Involvement

Public agencies
Auckland Council, Auckland Transport

Private group
Local business owners and operators

Citizen associations and unions
Blind Foundation

Designers and Engineers
Boffa Miskell, Jawa Structures, TPC (traffic engineering), LDP (lighting)

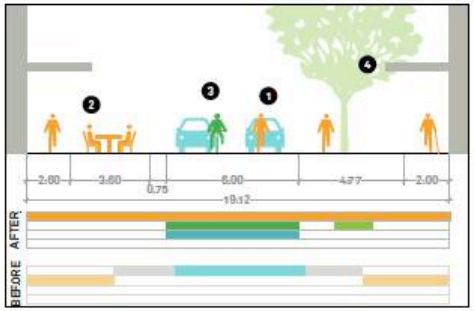
Evaluation

+54%
Increase in pedestrian volumes

+47%
Increases consumer spending.

-25%
Decrease in vehicle volume.

80%
Felt safer in the area



Key Elements

1. Removal of any demarcation between pedestrian and vehicles such as curbs and bollards.
2. Extended areas for open-air activities.
3. Pedestrians can walk on the entire right-of-way.
4. Accessible routes along building lines for the blind.

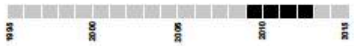
Removal of all parking spaces.

Restricted loading times.

Street furniture and landscaping.

Project Timeline

June 2009 - April 2013



Users-bar legend:
- Pedestrian space
- Cycles
- Transit
- Mixed traffic
- Landscape
- Parking

Jellicoe Street in Auckland

Auckland, New Zealand

Extent 400 m
14,000 m²

Right-of-way 23 m

Context Before: Industrial, After: Mixed-use (residential, commercial)

Cost: 24 million NZD (15 million USD)
Funding Public

Project sponsors Auckland Waterfront Development Agency

Max Speed 30km/h

Credit Photo: Auckland Council

Key Elements

1. Integration of a rain garden network in the street design
2. Limited vehicle access
3. Curbs removed (shared space approach)
4. Integration of light rail (tram)
5. Use of native and local plants

Overview

The transformation of Jellicoe Street is part of the larger revitalization project of the Wynyard Quarter, from an industrial port area to an active and livable waterfront neighborhood. The area is located on the edge of the city close to the harbour on contaminated land.

Public space has been designed to be a catalyst for development and to foster the conversion of old hangars and warehouses into a cultural and recreational strip.

The street was transformed from an industrial service road to a lush pedestrian boulevard. Narrowing the width of Jellicoe Street and the surface treatment reduced vehicle speeds.

Thanks to its innovative approach and integrated sustainability measures, the transformation of Jellicoe Street has become a new benchmark for citywide street planting

Lessons Learned

Although surface treatment reduced speeds, the driver behavior forced the Waterfront Development Agency to implement controls such as wheel stops adjacent to rain gardens and dotted yellow lines to restrict parking.

Usage of parking spaces were monitored and changes were made accordingly, including replacing car parking with bicycle parking and with loading zones.

Goals

Create a unique destination and a civic space

Bring recreational activity to the site

Transforming the area but preserving the industrial heritage

Achieve an environment that is well connected yet offers distinctly different experiences

Involvement

Public agencies
Auckland Council, Waterfront Development Agency

Designers and Engineers
Taylor Cullity Lethlean, Wraight + Associates, MPM projects, Beca, Eoubed and DesignFlow

Waterfront Auckland has partnered with a local Maori tribe (iwi) to maintain the vegetation in the street as part of a precedent setting community outreach program for the city.

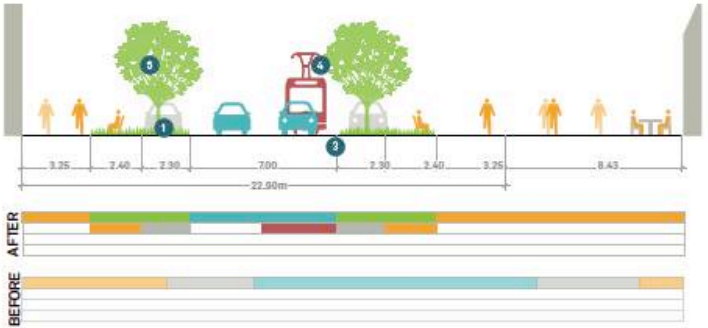
project timeline

June 2009 - August 2011 (3 years and 3 months)

SUSTAINABILITY

The street transformation addressed sustainability issues by:

- Water-sensitive urban design implementation site-wide (capturing, treating and reusing storm-water)
- The reuse of site through materials such as concrete blocks from a nearby cement factory
- The promotion of healthy activities, environmental education and positive social interaction



EVALUATION

+1293%	+67%	+57%	-456%	-451%	-533%
Increase in pedestrian activity	Increase in cycle volume	Increase in bus ridership	Decrease in AM vehicle volume	Decrease in PM vehicle volume	Increase carbon absorbtion with aditional treets

Credit: Jana Urban Space

Bangalore

Credit: VPUU NPC

Cape Town

Seoul

Credit: NL Architects

Amsterdam

Credit: SvR Design Company

Credit: CannonCorp Engineering

Paso Robles, CA

Credit: City of Toronto

Toronto


Before
WIN 75%
SCHOLARSHIP
SAT 2013
ON 31ST MAY
https://www.itdp.org/the-new-chennai-streetscape/


After
https://www.itdp.org/the-new-chennai-streetscape/

Chennai

Credit: Abu Dhabi Urban Planning Council

Abu Dhabi

Credit: Elaine Kramer

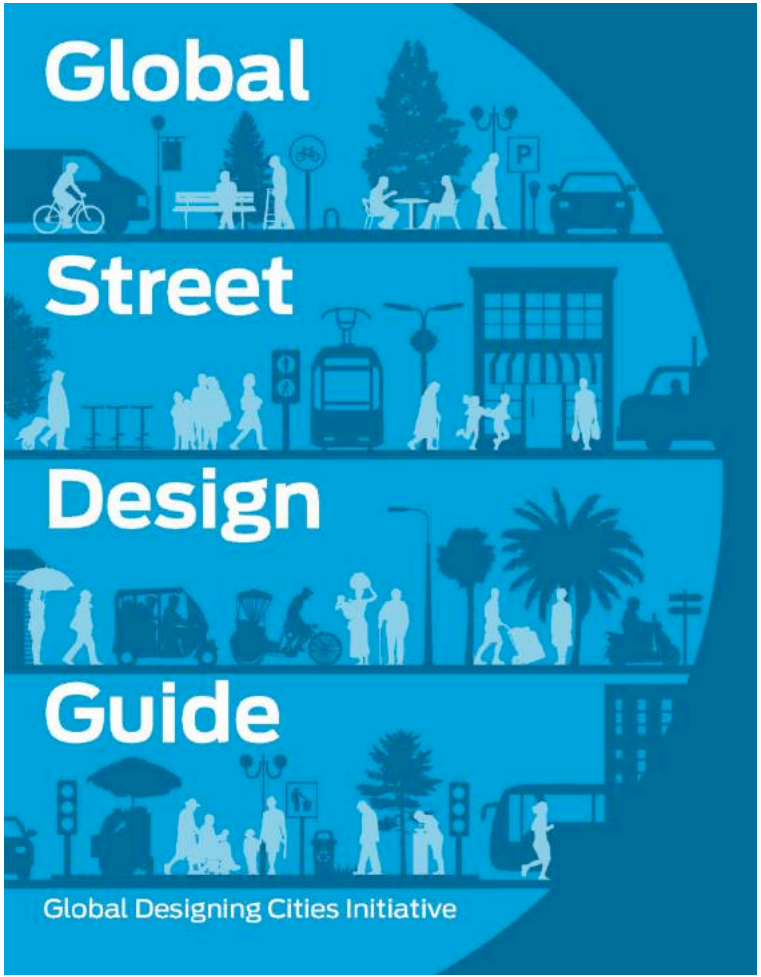
London

Credit: Embarq, WRI Turkey

Istanbul

San Francisco

Stockholm



Provide the tools to reimagine**,** reinvent**, and** redesign **safer, more sustainable streets!**

ACCRA, GHANA

Existing Street


Existing Street
Remove Cars, Allow Limited Loading
Temporary Surface Treatment

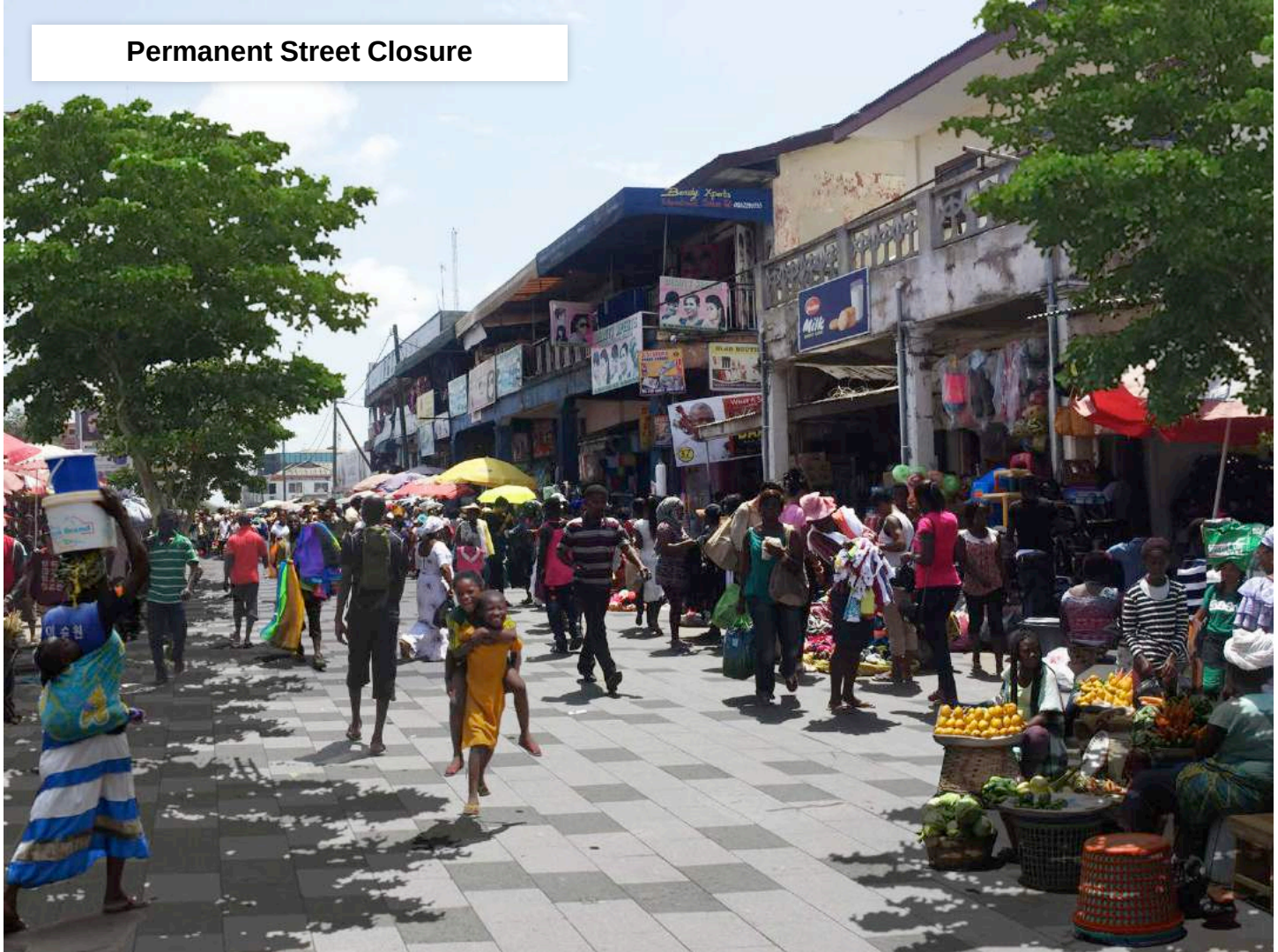
Temporary Street Closure

Temporary Street Closure


Temporary Street Closure
Trees to add Shade
Loading at Limited Hours
New Paving


Permanent Street Closure
Trees to add Shade
Loading at Limited Hours
New Paving

Permanent Street Closure



BANDUNG, INDONESIA


HOTEL


Remove
Pedestrian
Bridge


Remove
Pedestrian
Bridge


HOTEL
Sinar 96
Supermarket


Add At-grade pedestrian crossing


Add At-grade pedestrian crossing


ATAS
Sinar 96


Widen
Sidewalks


Widen
Sidewalks


ATM BCA


Exchange space for private vehicles for cycles and public transport


Exchange space for private vehicles for cycles and public transport


Exchange space for private vehicles for cycles and public transport


ATM BCA
Sinar Jaya
SIM


HOTEL


ATM BCA
Sinar Jaya
SIM

What Streets in Auckland would you do this transformational exercise for?

Have a think .....
...and come and tell Ludo
after the talk ☺

ASK FOR IT
DEMAND IT
DESIGN IT
FUND IT
DO IT

DESIGN STREETS THAT
PUT PEOPLE FIRST!

SHIFT HOW WE MEASURE SUCCESS

THEN

SHIFT HOW WE MEASURE SUCCESS

Access/Mobility (Multi-modal)

Public Health + Safety

Economic Sustainability

Environmental Quality

Livability/ Quality of Life

Equity

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