Review of the Forthcoming
City of London Complete Streets Design Manual

Introduction - What are Complete Streets?

" A complete street is one that is designed to accommodate the mobility needs of **all ages, abilities, and modes of travel**. Safe and comfortable access for **pedestrians, bicycles, transit users, and the mobility challenged** are not design after-thoughts, but are **integral to the planning of the street** from the start. "
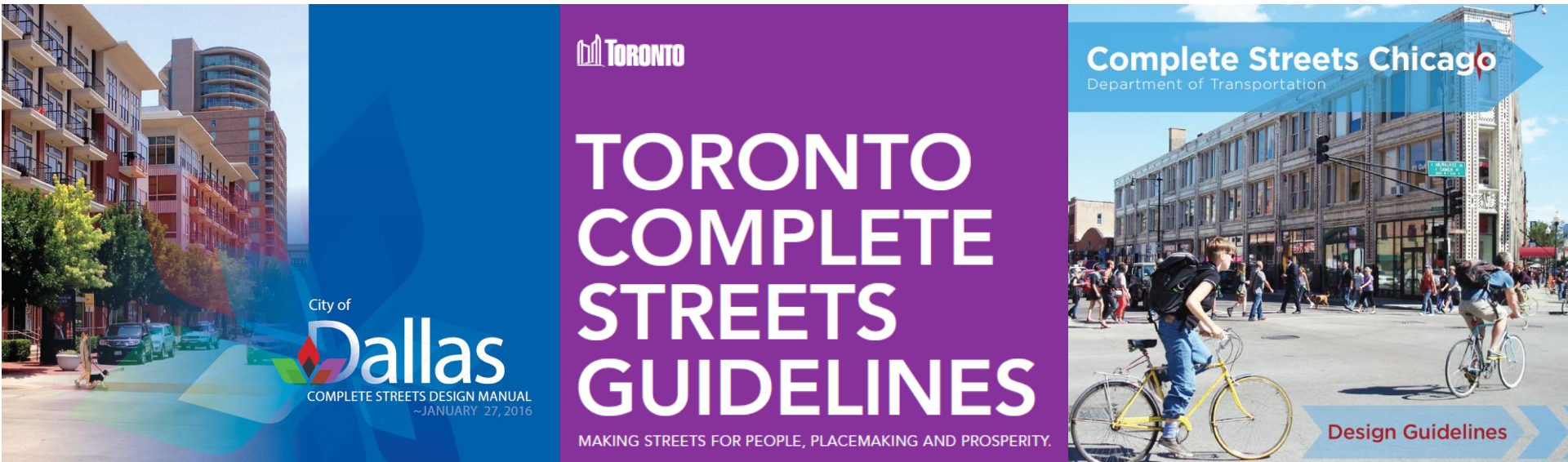
- London Transportation Master Plan

Introduction – Complete Streets Manuals

Complete Streets Guides & Manuals have been developed by **many cities around the world** to help **direct and coordinate** street planning/design towards more balanced mobility options

Background

The 2016 City of London Official Plan introduced a group of **Street Classifications**, which set the stage for more **context sensitive city building policies** and **redefining mobility** for Londoners

Classifications Include:
- Rapid Transit Boulevards
- Urban Thoroughfares
- Civic Boulevards
- Main Streets
- Neighbourhood Connectors
- Neighbourhood Streets
- Rural Thoroughfares
- Rural Connectors

Background

Each **Street Classifications** was accompanied with policies to guide future planning and design towards a an **intended character and function**, while progressing towards **overall mobility goals**

DESIGN FEATURES	STREET CLASSIFICATION		
	Rapid Transit Boulevard	Urban Thoroughfare	Civic Boulevard
Planned Street Width (Width of Right-of-Way)	50m	45m	36m
VEHICLE ZONE			
Divided and/or Separated	•		
On-street Parking (Additional to Through Lanes)	•	•	•
On-street Parking (In Through Lanes)	•	•	•
Cycle Facility	•	•	•
Left Turn Lanes	•	•	•
Right Turn Lanes		•	•
Planted Medians	•	•	•
Curb Extensions			
PEDESTRIAN ZONE			
Hard Surface (From Curb to Building Face)	•		
Standard Sidewalk (1.5m wide, Both Sides)	•	•	•
Coordinated Utilities	•	•	•
Street Trees	•	•	•
Street Furniture	•		
Pedestrian-scaled Lighting	•		
Landscape Planters	•	•	•
Grass Boulevard	•	•	•
Enhanced Cross-walk Treatments	•		
Low Impact Development	•	•	•

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Background

Many stakeholders were included in consultation efforts for the development of the Complete Streets Design Manual and attended a **Stakeholder Workshop,** held on June 2nd, 2017. These groups included:

- Accessibility Advisory Committee
- Can-Bike
- Hyde Park Business Association
- Bell
- London Middlesex Road Safety Committee
- Middlesex Health Unit
- Start Communications
- Cycling Advisory Committee
- London Fire
- London Development Institute (LDI)

- Downtown London BIA
- London Hydro
- London Transit
- Union Gas
- Tree and Forests Advisory Committee
- Argyle BIA
- City of London Water
- London Environmental Network
- City of London Development Services

Goals

The City of London Official Plan suggested the preparation of a Complete Streets Manual to establish:

- Overall cross-sections for the street classifications
- Design parameters for the public realm

The vision for the City of London Complete Streets Design Manual grew to include . . .

London Complete Street Manual - Content

Chapter 1: Complete Streets: Vision and Principles
- Complete Streets concepts and policy support

Chapter 2: Elements of Complete Streets
- Complete Streets features

Chapter 3: Undertaking Complete Streets Design
- Processes for balancing the needs of current and future users

Chapter 4: Street Design for Roadways
- Street characteristics/priorities and conceptual cross sections, by street classification

Chapter 5: Street Design for Intersections
- Intersection treatments that provide Complete Streets elements for specific combinations of street classifications

Chapter 6: Moving Forward with Complete Streets
- Progress indicators for Complete Streets outcomes

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Contents:
1. What are Complete Streets?
2. Who is This Guide For?
3. Review of Complete Streets Policies in London
4. Core Principles for Complete Streets

CHAPTER

1

COMPLETE STREETS: VISION AND PRINCIPLES

Local Policy Support

"At the local level, policy support for complete streets is found in a number of documents, including the:
- Strategic Plan
- The London Plan
- Downtown Plan
- Design Specifications and Requirements Manual
- Cycling Master Plan
- London Rapid Transit
- London Road Safety Strategy
- London 2030 Transportation Master Plan"

THE
LONDON
PLAN

EXCITING. EXCEPTIONAL. CONNECTED.

LONDON BIKES

smart moves
LONDON 2030
TRANSPORTATION MASTER PLAN

COMPLETE
STREETS: VISION
AND PRINCIPLES

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Local Policy Support

"Municipal Council adopted the following Vision Zero Principles:

- No loss of life is acceptable
- Traffic fatalities and serious injuries are preventable
- We all make mistakes
- We are all physically vulnerable when involved in motor vehicle collisions
- Eliminating fatalities and serious injuries is a shared responsibility between road users and those who design and maintain our roadways"

VISION ZERO LONDON
ROAD SAFETY STRATEGY

COMPLETE STREETS: VISION AND PRINCIPLES
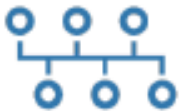
Core Principles

Prioritize Safe and Accessible Options for People

Embed Sustainability

Emphasize Vitality

Prioritize Connectivity

Ensure Context Sensitivity

COMPLETE STREETS: VISION AND PRINCIPLES

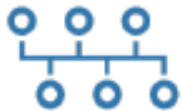london.ca

Core Principles

Prioritize Safe and Accessible Options for People

" The safety and mobility needs of all users is a priority in any street design exercise. "

Emphasize Vitality

" Streets that attract pedestrians enhance urban vitality in London. "

COMPLETE STREETS: VISION AND PRINCIPLES

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Accessibility

The Manual defines what a pedestrian is, describes the central role of walking and mobility device travel within London and outlines how the City will support pedestrians through Complete Streets.

Key considerations:

- Tactile walking surface indicators
- Separation of pedestrians and cyclists where practical
- Consideration of user needs and land uses in prioritizing street elements such as sidewalk width
- Design processes that emphasize consultation with stakeholder groups
- Pedestrian crossing refuge islands
- Accessible transit stop design

COMPLETE STREETS: VISION AND PRINCIPLES

Contents:

General Considerations and Tools for:
1. Pedestrian Facility Design
2. Cycling Facility Design
3. Transit Facility Design
4. Motor Vehicles
5. Green Infrastructure
6. Utilities and Municipal Services

CHAPTER

2

ELEMENTS OF COMPLETE STREETS

Pedestrian Facility Considerations

An **AODA compliant** push button

Buffered bicycle lane in London.

Cycling Facilities Considerations

ELEMENTS OF COMPLETE STREETS

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Provide connectivity:
As the slowest
mode of transportation,
pedestrians have
the greatest sensitivity
to route directness.

Buffered bicycle lane in London.

An **AODA compliant** push button

Prioritize vulnerable users:
Cyclists are more vulnerable
than transit riders and
motorists in a collision
because they are not
protected within a vehicle.

ELEMENTS OF COMPLETE STREETS

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Design For Accessibility

"Pedestrians include those who are using a walker, crutches, a wheelchair or an electrically powered mobility device as well as individuals with a visual impairment.

Design features should be used to accommodate all of London's pedestrians, such as:

- appropriately wide pedestrian clearways;
- audible pedestrian signals;
- tactile walking surface indicators (TWSIs);
- visually contrasting surface treatments; and
- amenities such as seating"

ELEMENTS OF COMPLETE STREETS

Contents:
(under development with City input)

1. Process Overview
2. Planning
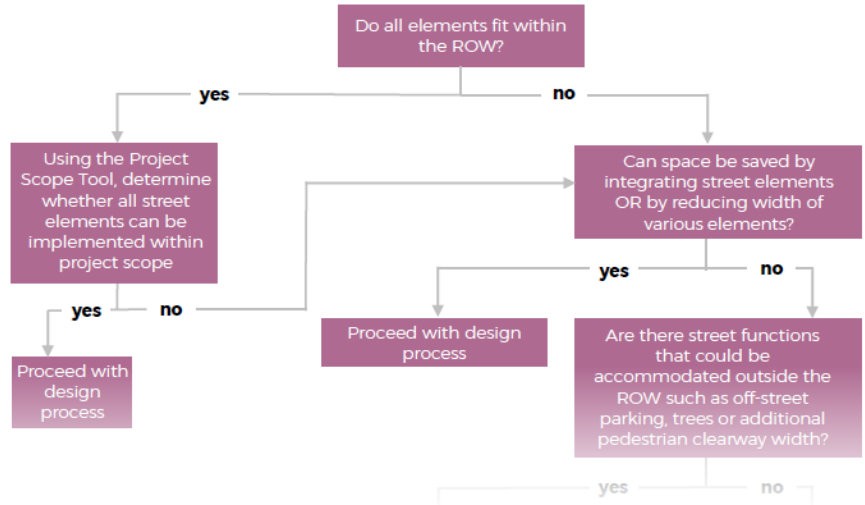3. Conceptualizing
4. Designing
5. Implementing

CHAPTER

3

UNDERTAKING
COMPLETE
STREETS
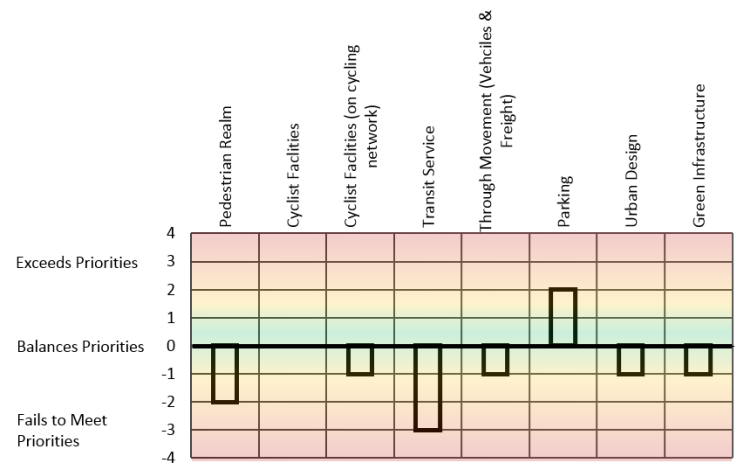**DESIGN**

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Street Element Decision Making Tool

Do all elements fit within the ROW?

yes → Using the Project Scope Tool, determine whether all street elements can be implemented within project scope
- yes → Proceed with design process
- no →

no → Can space be saved by integrating street elements OR by reducing width of various elements?
- yes → Proceed with design process
- no → Are there street functions that could be accommodated outside the ROW such as off-street parking, trees or additional pedestrian clearway width?
  - yes
  - no

Complete Street Audit Tool

STREET TYPE: Rapid Transit Boulevard

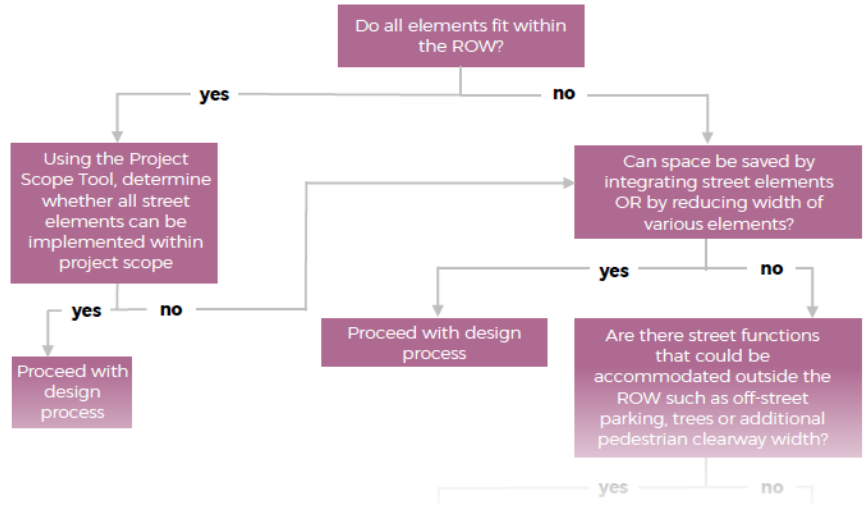|	Pedestrian Realm	Cyclist Facilities	Cyclist Facilities (on cycling network)	Transit Service	Through Movement (Vehicles & Freight)	Parking	Urban Design	Green Infrastructure
Priority Level	5	3	4	5	4	1	4	4
Current Conditions (user provided)	3	3	3	2	3	3	3	3
Exceeded (+) / Fail to Meet (-) Priorities	-2	0	-1	-3	-1	2	-1	-1

UNDERTAKING COMPLETE STREETS DESIGN

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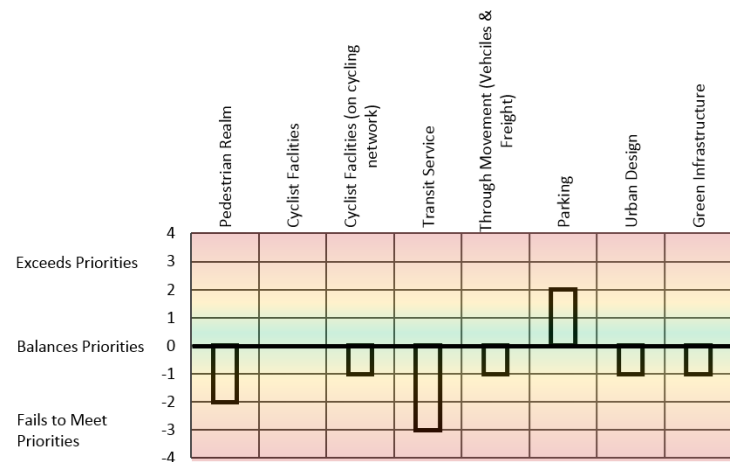
> The tool outlines suitable alternatives that should be considered in cases where the Right of Way is not sufficiently wide.

> The selected street typology automatically loads the priority rankings from the Complete Street Priorities Tool and the graph on the right displays the difference between desired and existing conditions.

Do all elements fit within the ROW?

yes → Using the Project Scope Tool, determine whether all street elements can be implemented within project scope
- yes → Proceed with design process
- no →

no → Can space be saved by integrating street elements OR by reducing width of various elements?
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  - no

STREET TYPE: Rapid Transit Boulevard

	Pedestrian Realm	Cyclist Facilities	Cyclist Facilities (on cycling network)	Transit Service	Through Movement (Vehicles & Freight)	Parking	Urban Design	Green Infrastructure
Priority Level	5	3	4	5	4	1	4	4
Current Conditions (user provided)	3	3	3	2	3	3	3	3
Exceeded (+) / Fail to Meet (-) Priorities	-2	0	-1	-3	-1	2	-1	-1

Exceeds Priorities
Balances Priorities
Fails to Meet Priorities

UNDERTAKING COMPLETE STREETS DESIGN

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Contents:

1. Street Typologies
2. Design Guidance for:
   - Rapid Transit Boulevards
   - Urban Thoroughfares
   - Civic Boulevards
   - Main Streets
   - Neighbourhood Connectors
   - Neighbourhood Streets
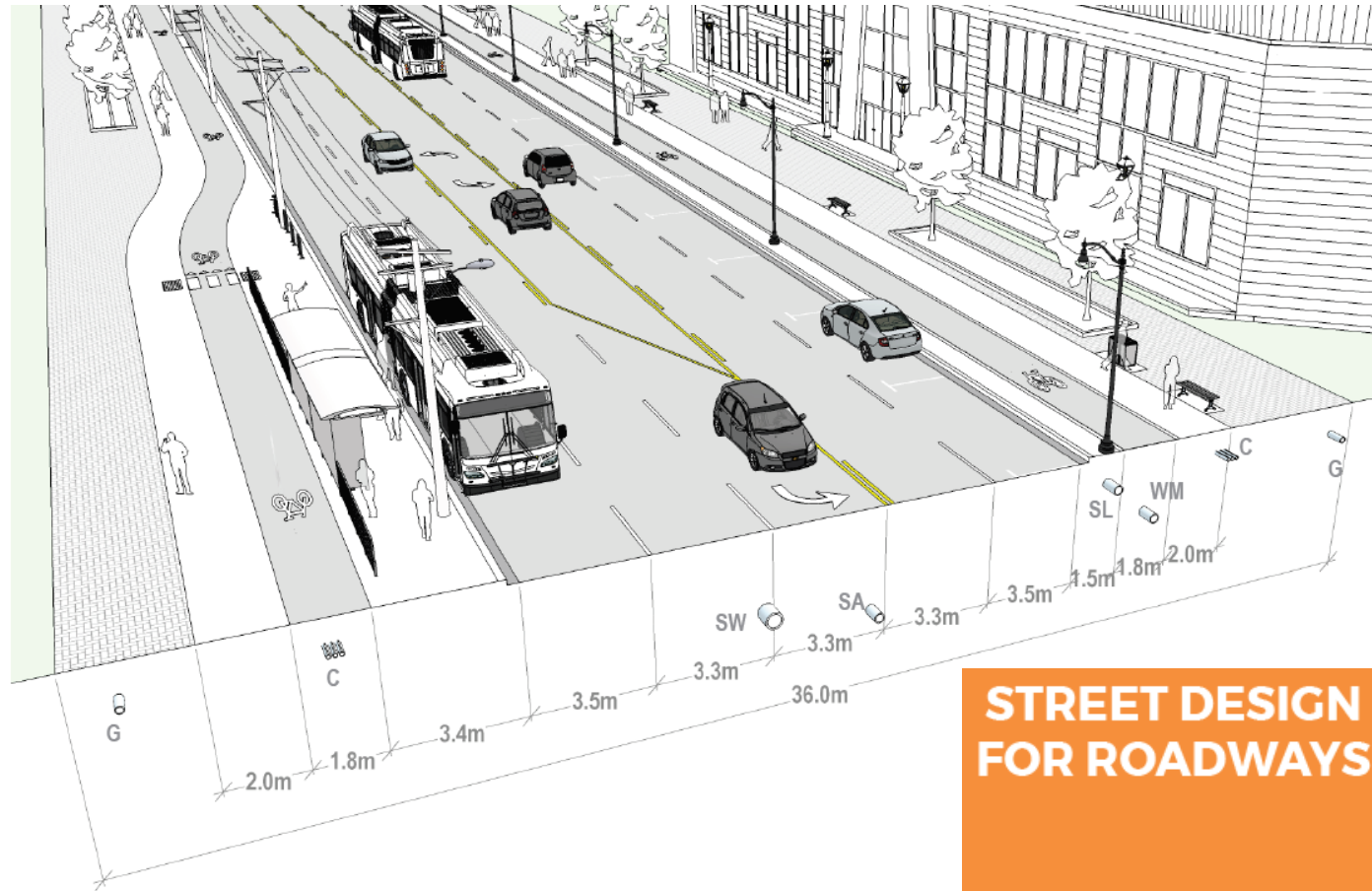   - Rural Thoroughfares
   - Rural Connectors

CHAPTER

4

STREET DESIGN FOR ROADWAYS

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Example
Civic Boulevard
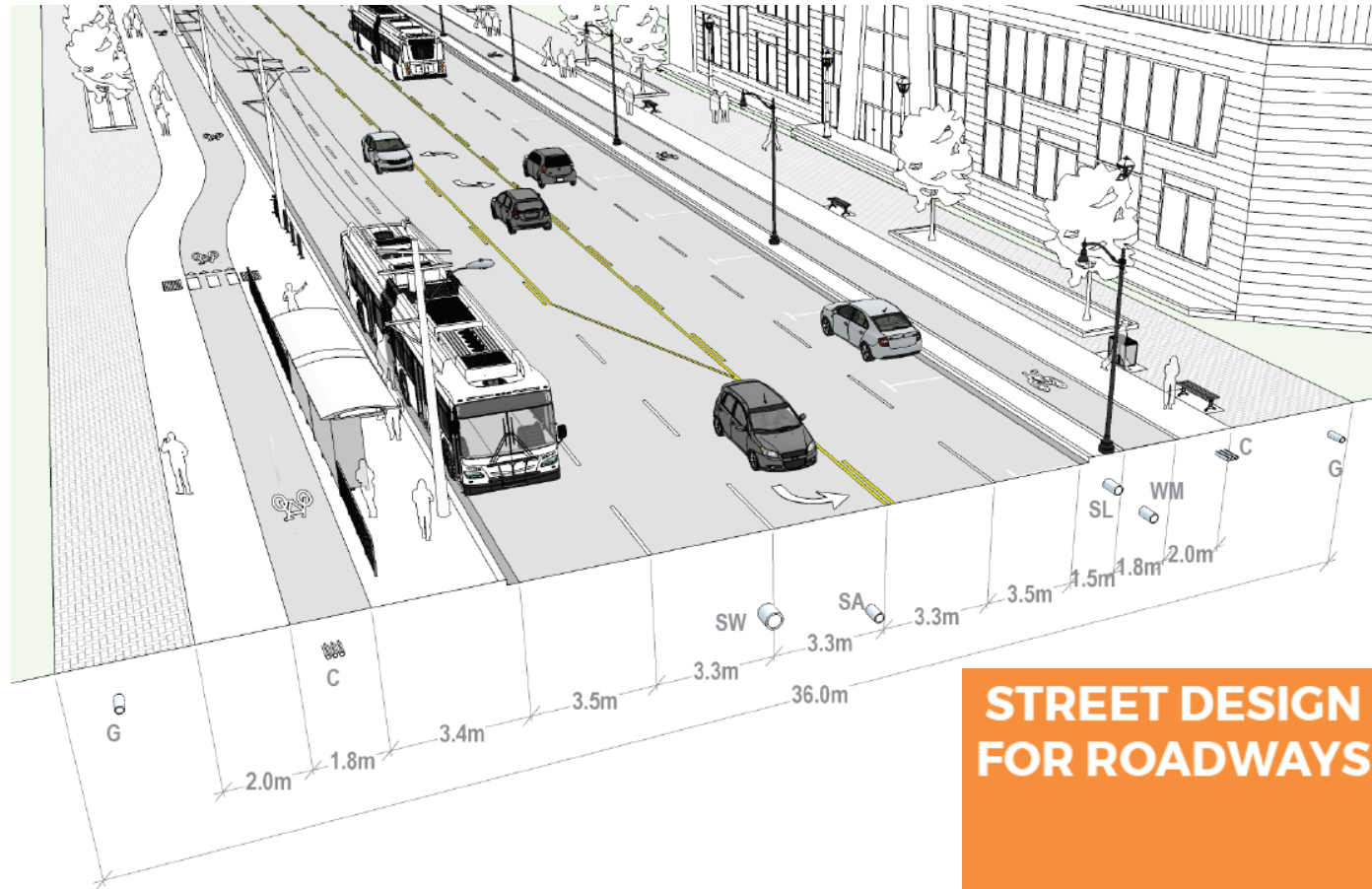
STREET DESIGN FOR ROADWAYS

" Physically separated and continuous cycling facilities are preferred. "

Example
Civic Boulevard

" Civic Boulevards provide multi-modal connections between different neighbourhoods across the City including downtown. "

SL
WM
C
G
2.0m
1.8m
1.5m
3.5m
SA
3.3m
SW
3.3m
C
3.3m
36.0m
3.5m
G
3.5m
2.0m
1.8m
3.4m

STREET DESIGN FOR ROADWAYS

" The variety of destinations along these corridors can generate significant volumes of walking trips "

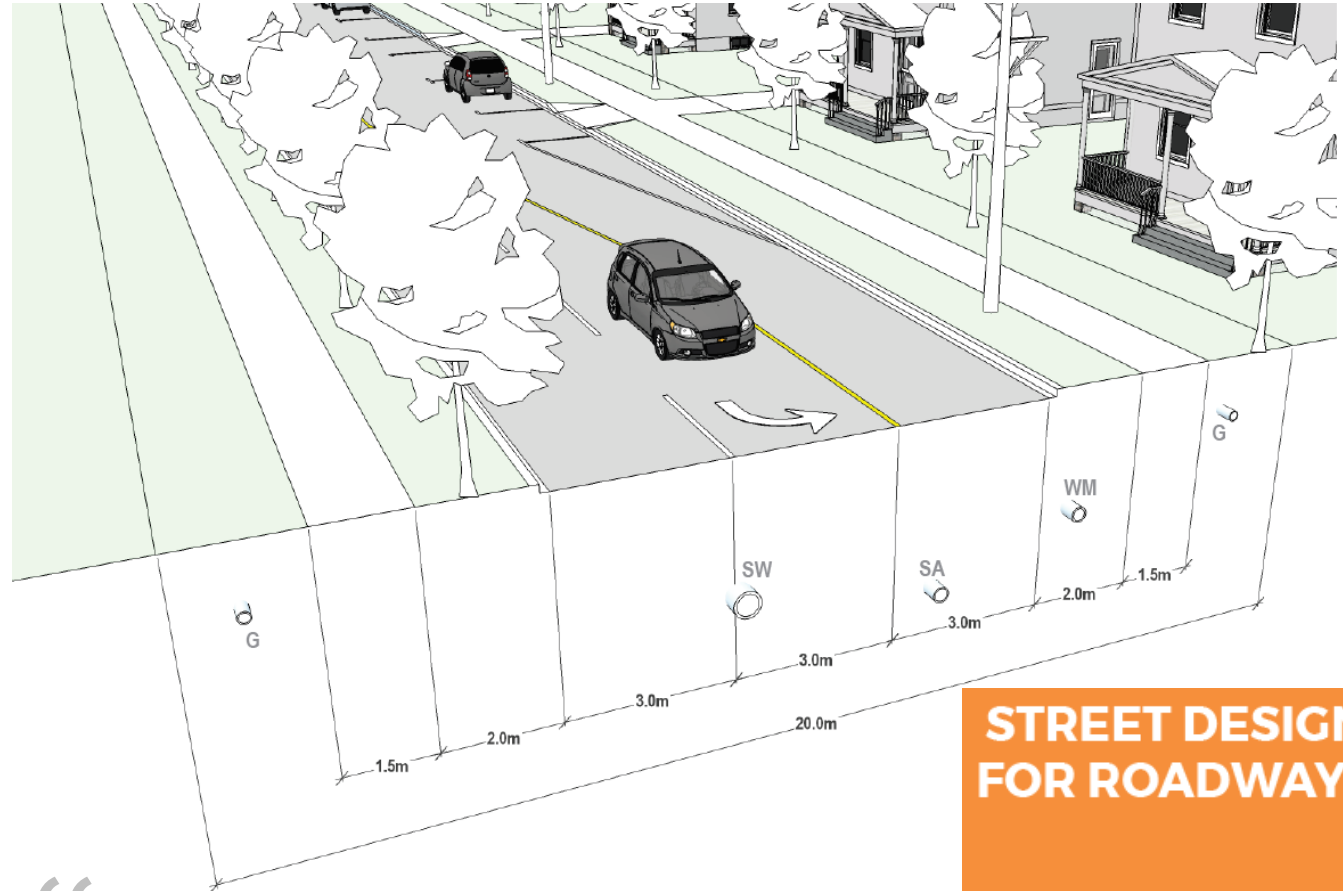Example
Neighbourhood Street
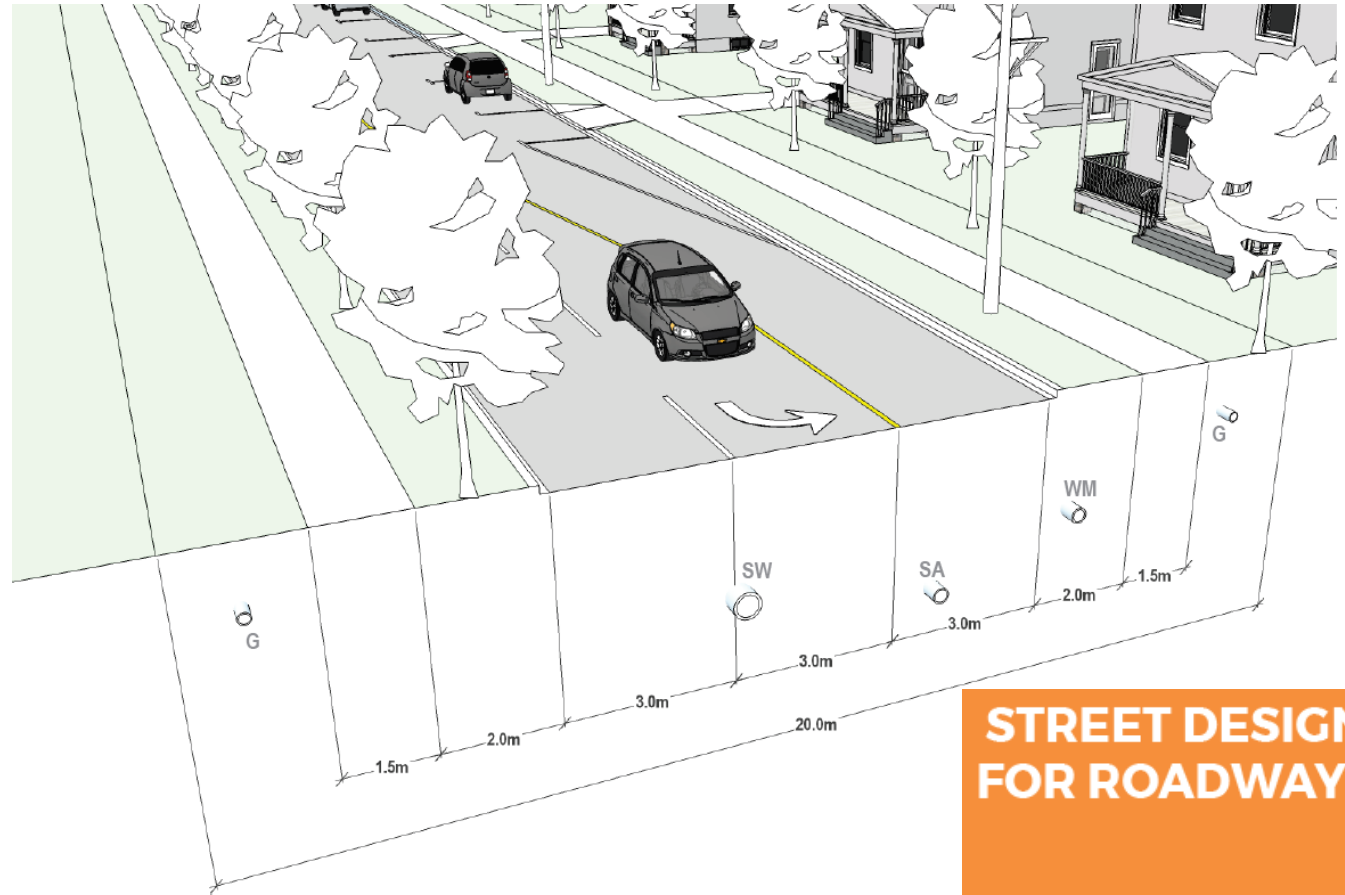
STREET DESIGN FOR ROADWAYS

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" Motorist speeds may be managed with speed humps. "

Example
Neighbourhood Street

" Neighbourhood Streets are where most Londoners, including many families, live; enhancing the livability, sense of community, and the ability to age-in-place are important considerations. "

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" Benches and newspaper boxes are typically provided at corners with other major streets. "

STREET DESIGN FOR ROADWAYS

Contents:

1. Intersection Design Principles
2. Design Guidance for:

- Rapid Transit Boulevard Intersecting a Main Street
- Urban Thoroughfare intersecting a Civic Boulevard (Signalized)
- Urban Thoroughfare Intersecting a Civic Boulevard (Roundabout)
- Urban Thoroughfare Intersecting a Neighbourhood Connector
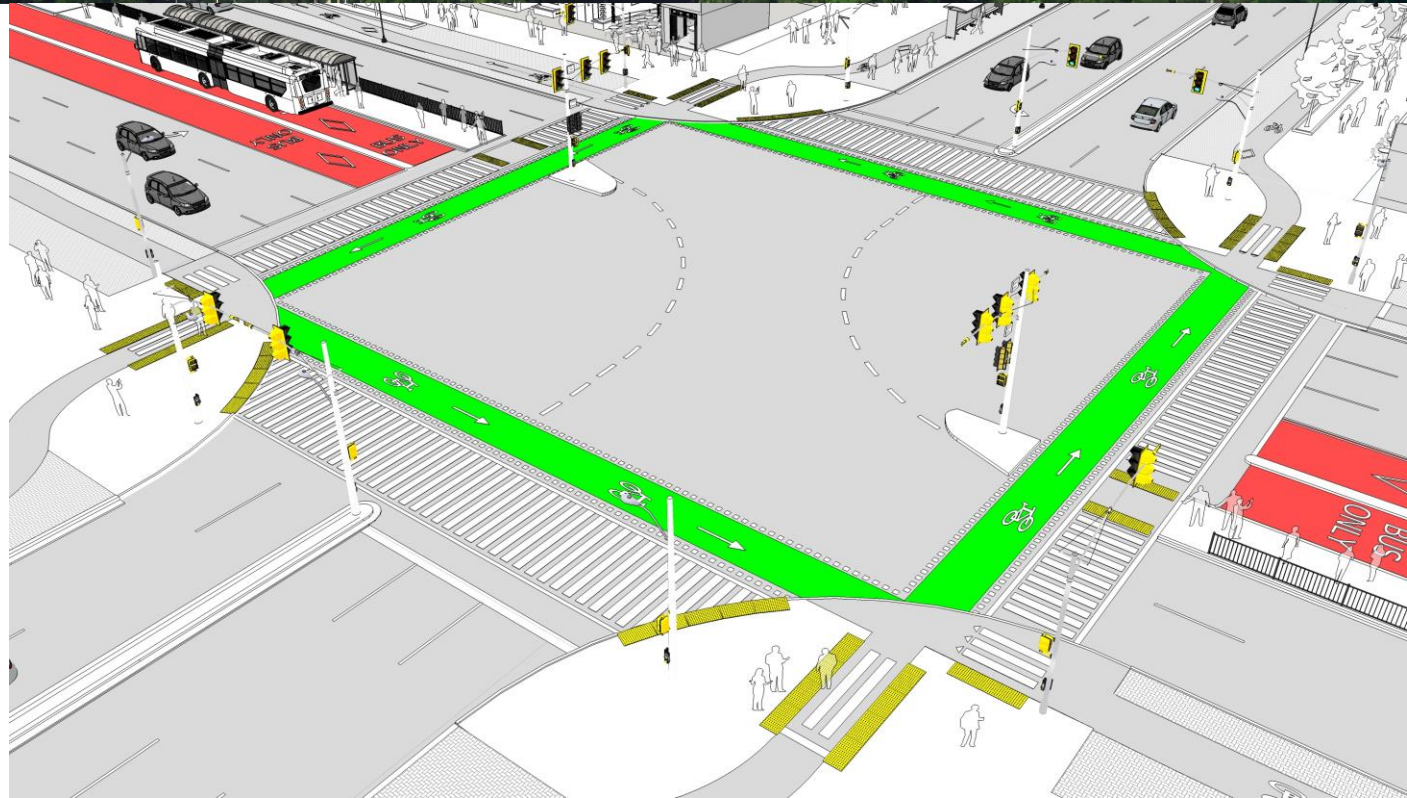- Civic Boulevard in the Primary Transit Area Intersecting a Neighbourhood Street

CHAPTER

5

STREET DESIGN FOR INTERSECTIONS
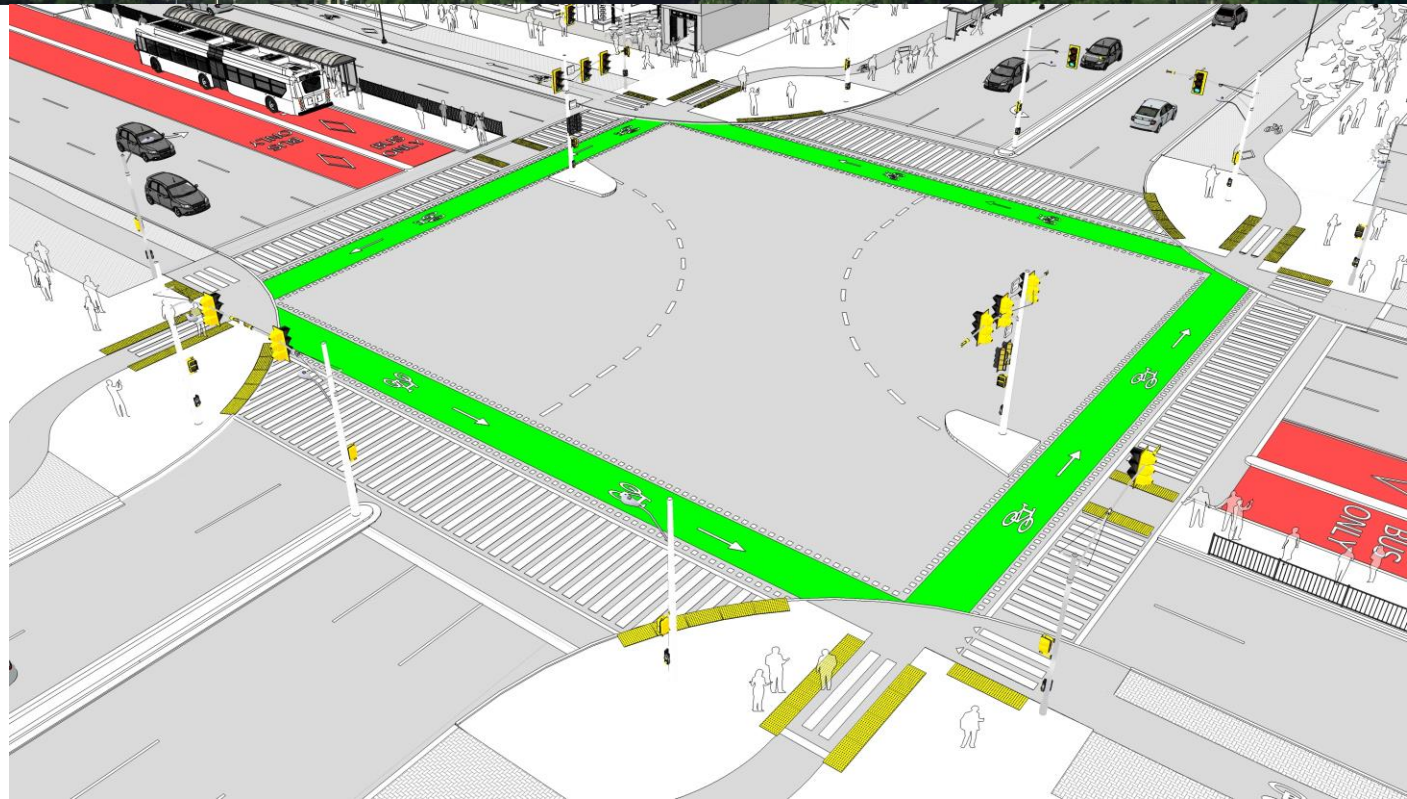
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Example
Rapid Transit Boulevard Intersecting a Main Street

STREET DESIGN FOR INTERSECTIONS

Example
Rapid Transit Boulevard Intersecting a Main Street

"The pedestrian clearway widens as the planter boxes and trees are discontinued, providing for greater ease of pedestrian movement and queuing."

"Centre median design requires dedicated transit signals which use the same phasing as the through motor vehicle movement."

STREET DESIGN FOR INTERSECTIONS

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Contents:
(under development with City input)
1. Principles of Performance Metrics
2. Options for Measuring Complete Streets Performance
3. Next Steps

CHAPTER

6

MOVING FORWARD WITH COMPLETE STREETS

Principles of Performance Measurement

- Undertake relevant and multi-faceted data collection
- Analyze usage patterns in context
- Develop a feasible monitoring strategy
- Communicate findings and integrate data analysis into project decision-making
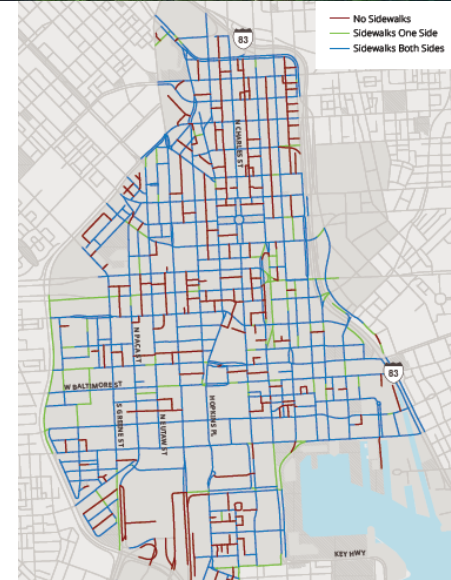
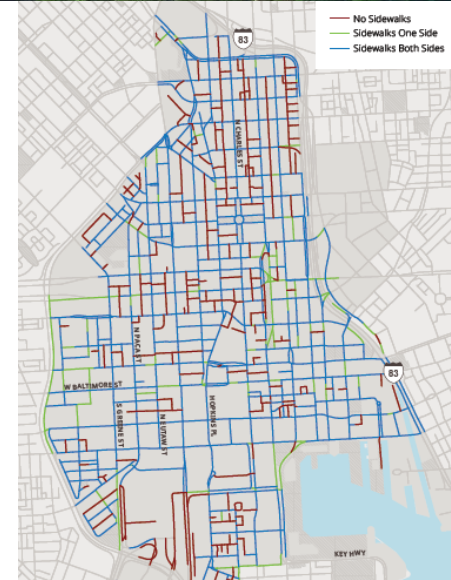**Baltimore Case Study:** Network Completeness Mapping: Pedestrian Network
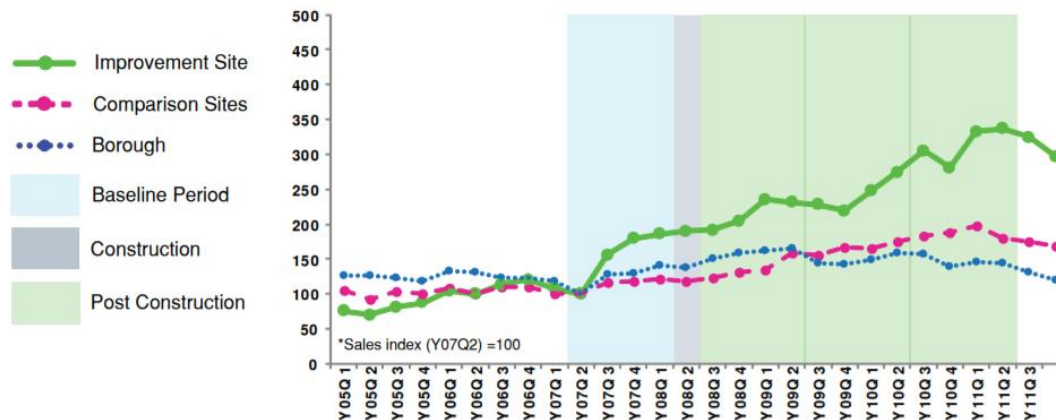
MOVING FORWARD WITH COMPLETE STREETS

**NYC Sustainable Streets Report:** Combined Sales: Improvement Sites vs. Comparison Sites

> " The spatial distribution of Complete Streets can be used to visualize the City's progress and highlight specific areas that may have less access to sustainable mode choices. "

> " Sales data collected via electronic payment vendors can be used to compare changes on streets where improvements are made with control streets that have a similar character. "

Baltimore Case Study: Network Completeness Mapping: Pedestrian Network

MOVING FORWARD WITH COMPLETE STREETS

NYC Sustainable Streets Report: Combined Sales: Improvement Sites vs. Comparison Sites

COMPLETE STREETS DESIGN MANUAL CITY OF LONDON
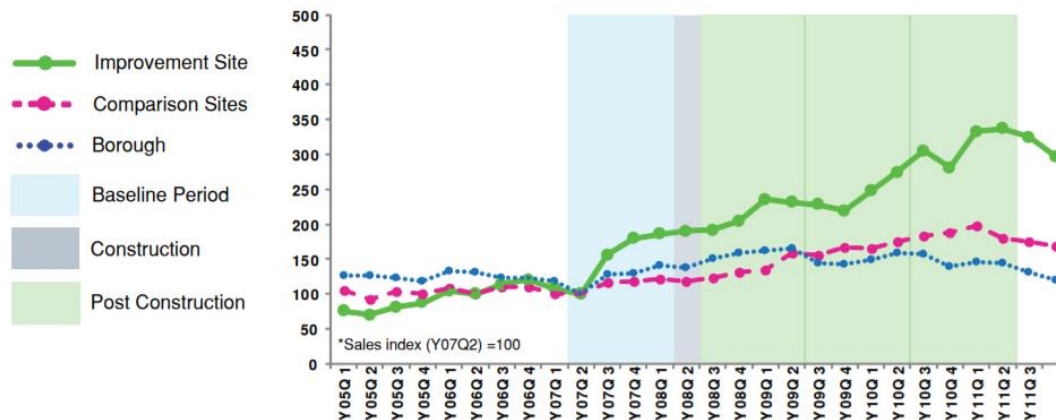
Next Steps

- Share Draft with Stakeholders and Finalize spring 2018
- Education campaign
- Move towards a network of Complete Streets

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Questions

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