



T o w n s h i p o f M i l l b u r n

Downtown Streetscape and Pedestrian Safety Capital Improvement Plan

*Township Committee
February 2, 2016*



The Millburn Complete Streets Plan is a **comprehensive capital improvement strategy** to address pedestrian safety, vehicular circulation and economic vitality in the downtown.

- Improve vehicular circulation and access
- Create a safe environment for pedestrians
- Support the needs of adjacent stores and restaurants



Main Street

Glen Ave

Essex St

Millburn Ave

Millburn Ave

Project Limits



“A street in a modern city is more than a traffic way - it is used for dozens of other legitimate purposes...and the street should be designed with the idea always in mind of securing as perfect as possible adaptation of each of the features to all the others.....”

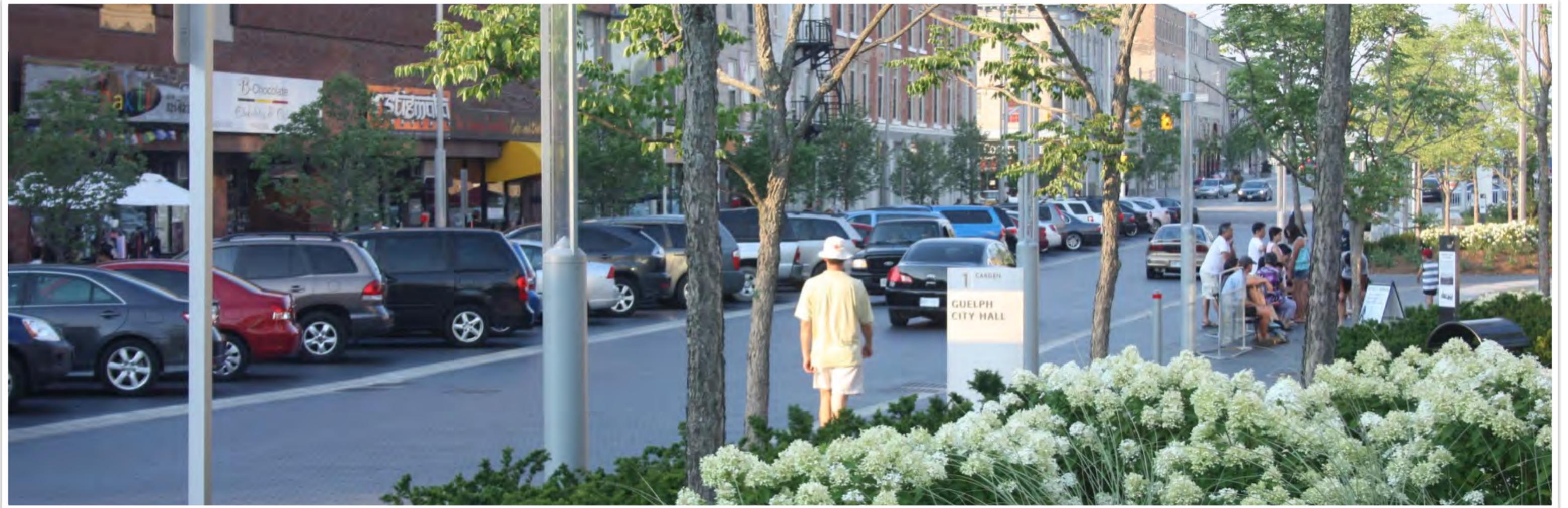


“...before planning any detail of a street, even its location or grade, we should consider every purpose which the street may be called upon to serve...and give each purpose due consideration.”



“...before planning any detail of a street, even its location or grade, we should consider every purpose which the street may be called upon to serve...and give each purpose due consideration.”

“Practical Street Construction” Municipal Journal, 1916



A Street's **“Performance”** is the measure of how well it balances:

-  **Functionality and Safety**
-  **Arts & Culture**
-  **Health & the Environment**
-  **Economic Vitality**
-  **Design Quality**



Pedestrian Safety and Complete Streets in Downtown Millburn



Calm traffic and create safe pedestrian crossings



Allow for safe pedestrian flow while supporting businesses



Create additional space and amenities at corners



Install "mid-block" crossings at key locations



Establish Main Street as a safe, pedestrian oriented event street



Eliminate slip lanes and identify gateways

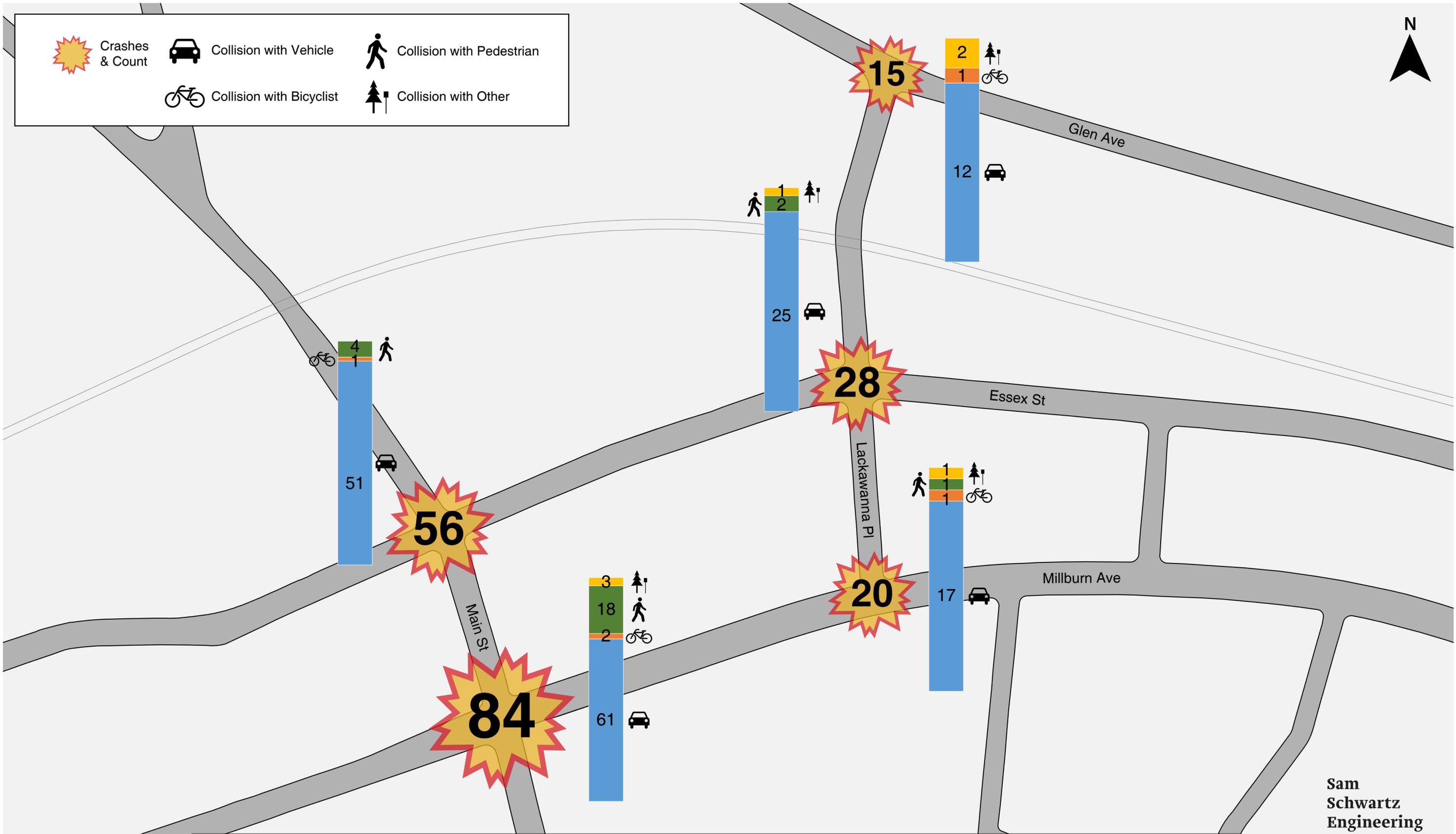


Figure 1

TRAFFIC STUDY (2012-2015)

Sam Schwartz Engineering D.P.C.



**TRAFFIC
FLOW**

SAFETY

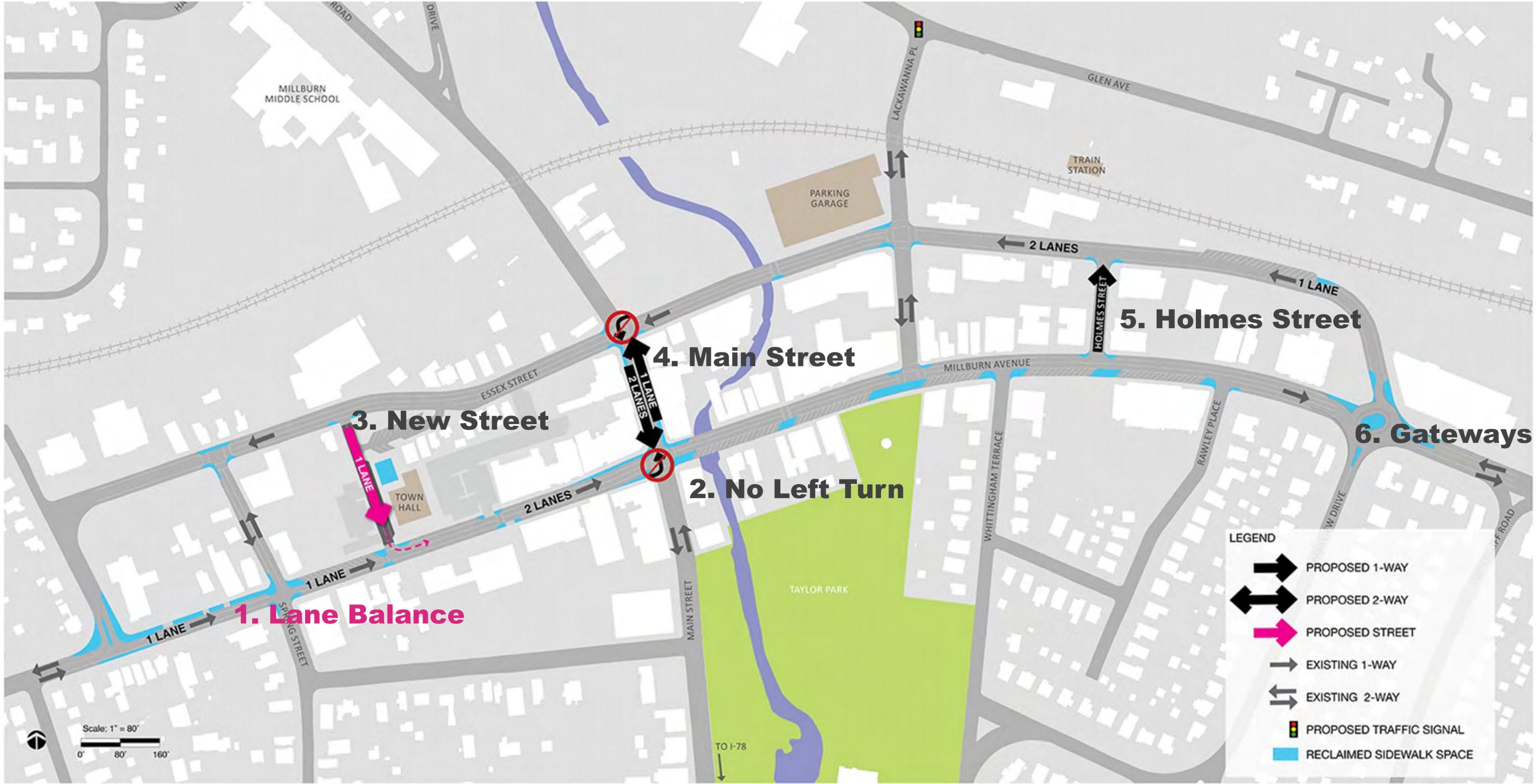


Key Pedestrian Safety and Complete Streets Improvements

- Safe pedestrian crossings and traffic calming
- Safe pedestrian circulation while supporting businesses
- Corner improvements
- Mid-block crossings
- Main Street enhancements (event street)
- Slip lanes and gateways



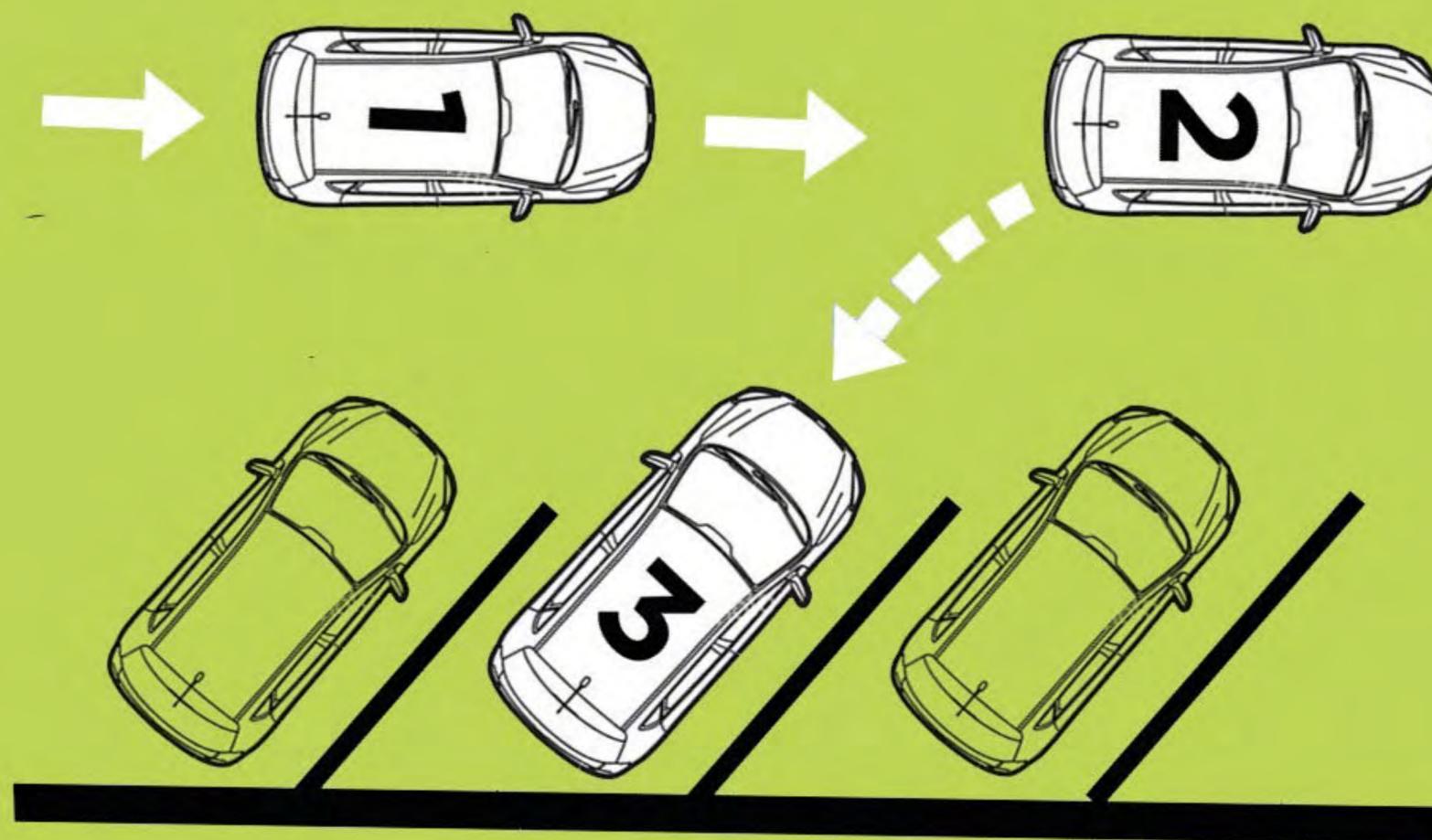
COMPLETE STREET SOLUTIONS



Proposed Circulation



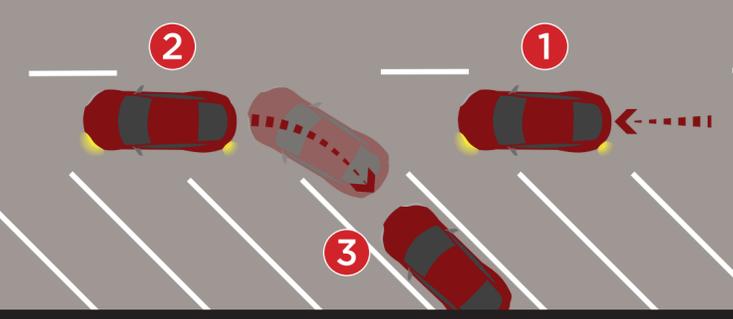
Reverse Angle Parking



1. Signal 2. Stop 3. Reverse



BROADWAY



BACK-IN ANGLE
PARKING ONLY

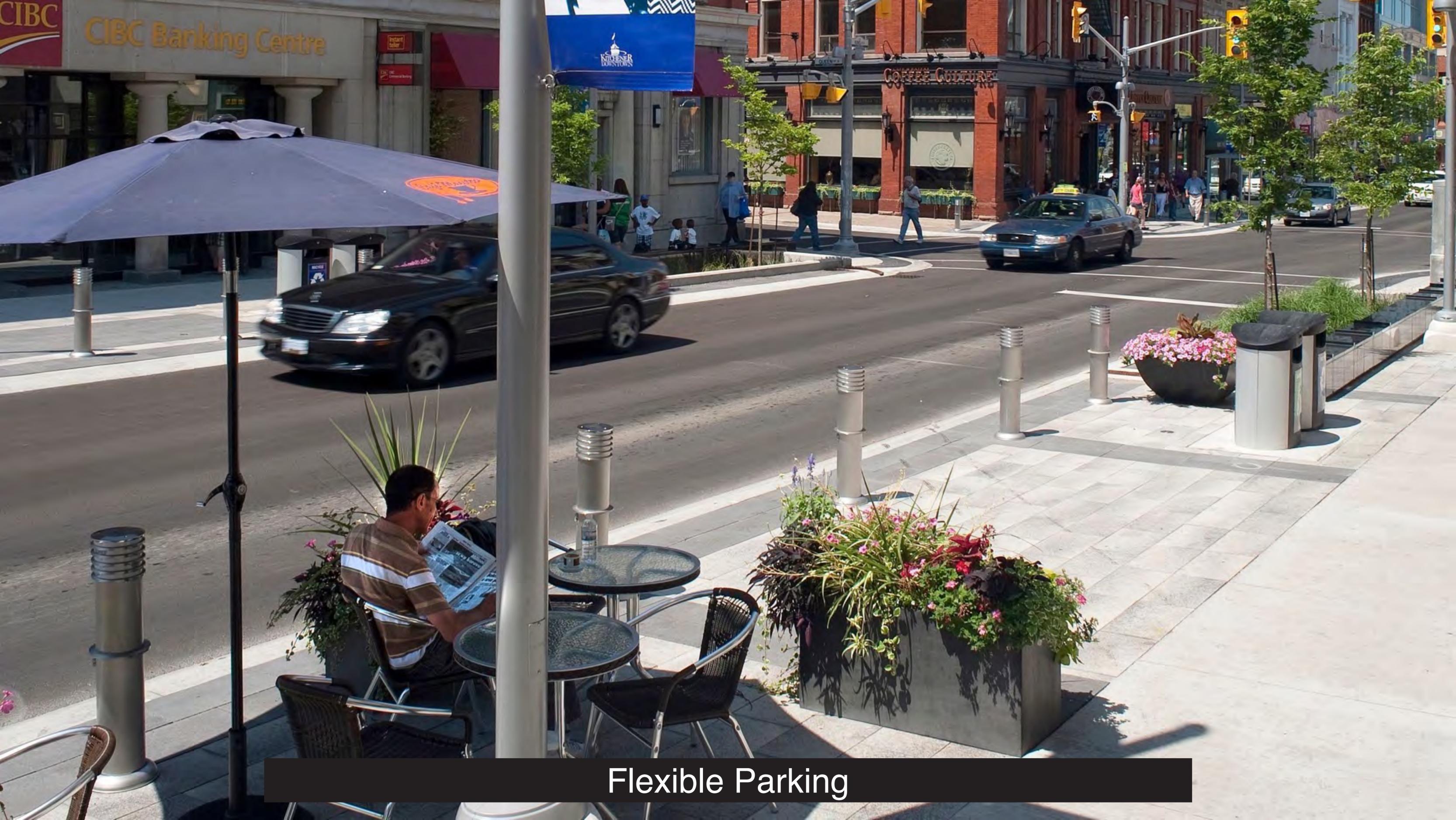
IT'S AS
EASY AS
1-2-3

1. SIGNAL
2. STOP
3. REVERSE

Reverse Angle Parking



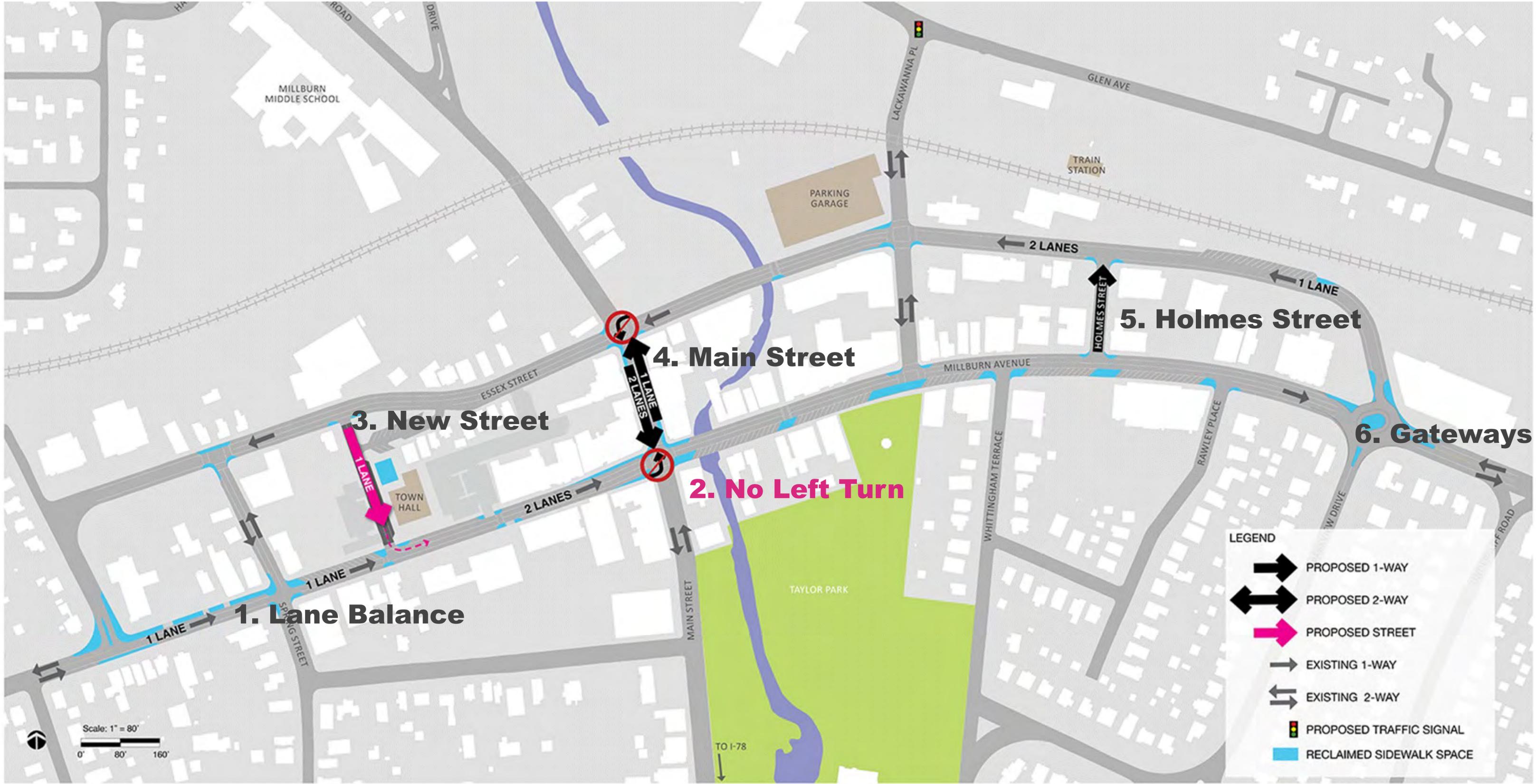
Flexible Parking



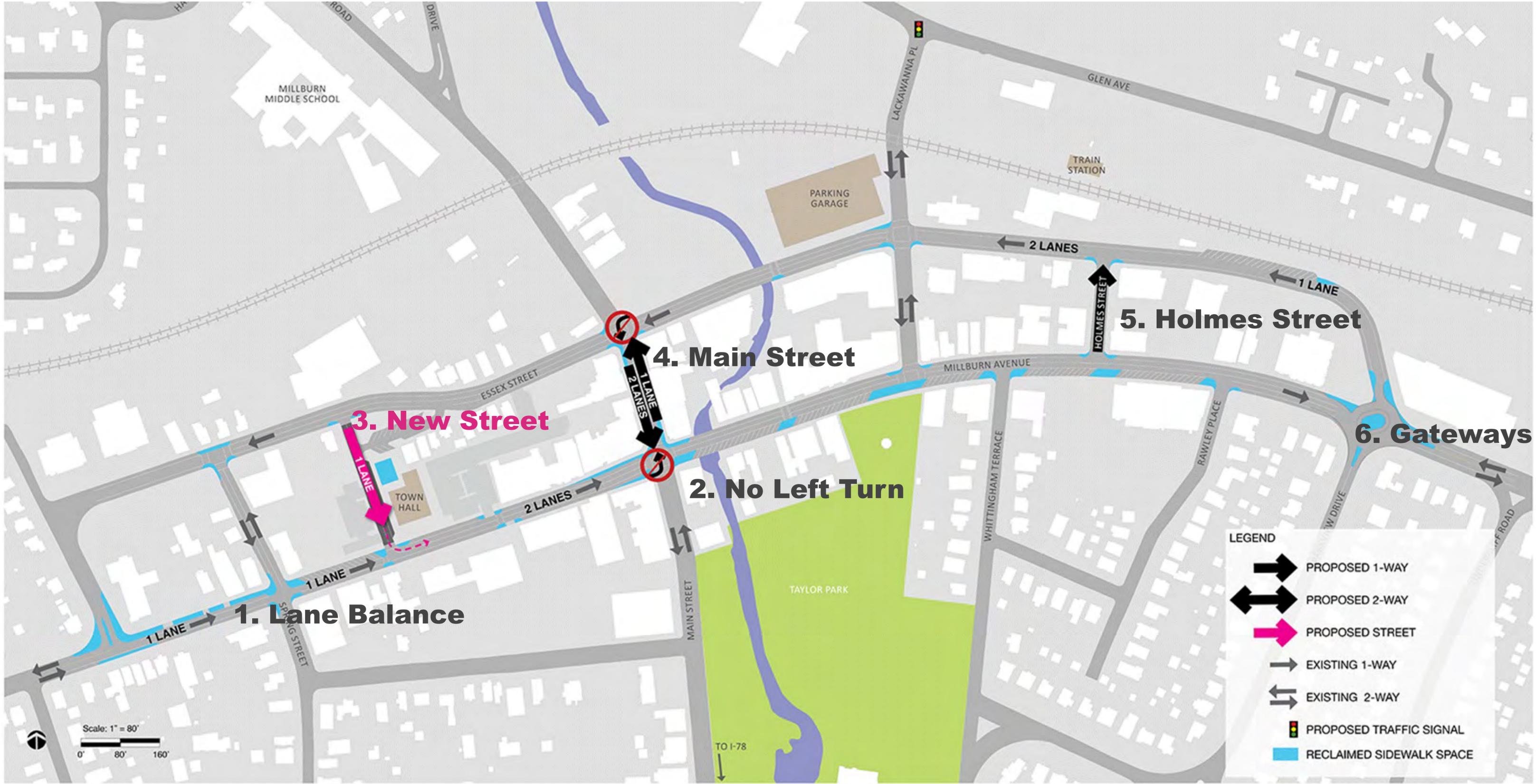
Flexible Parking



Flexible Parking



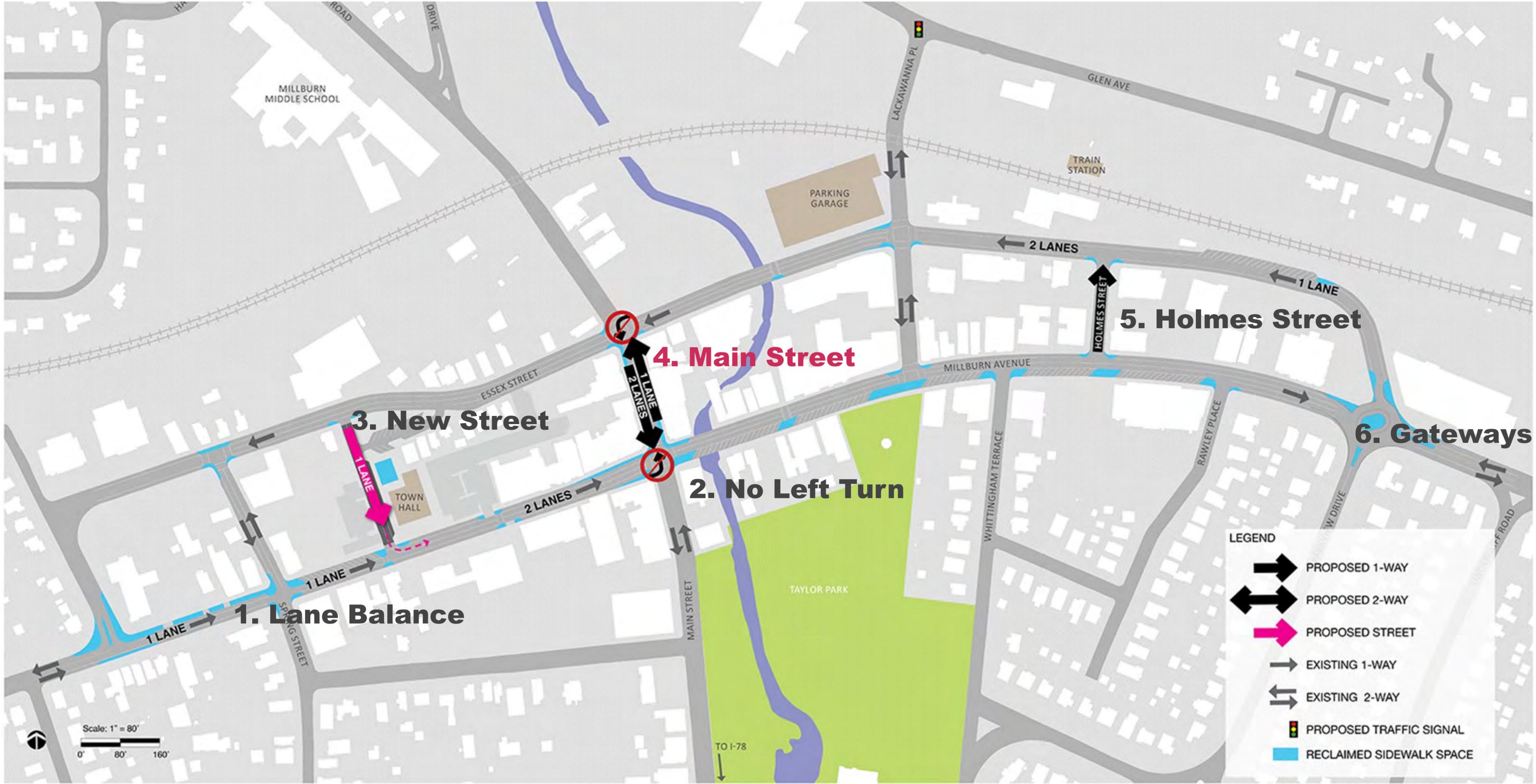
Proposed Circulation



Proposed Circulation



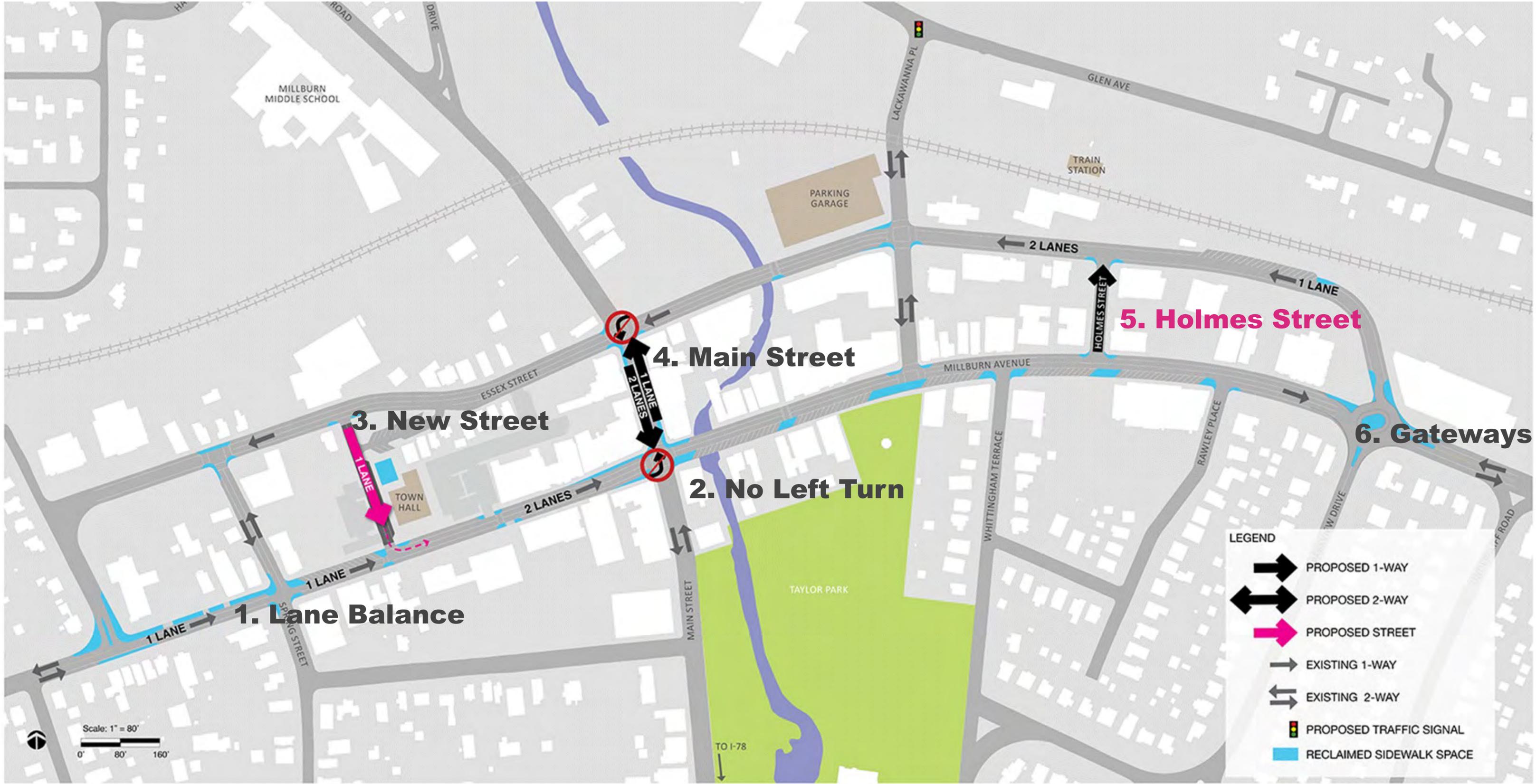
New Street



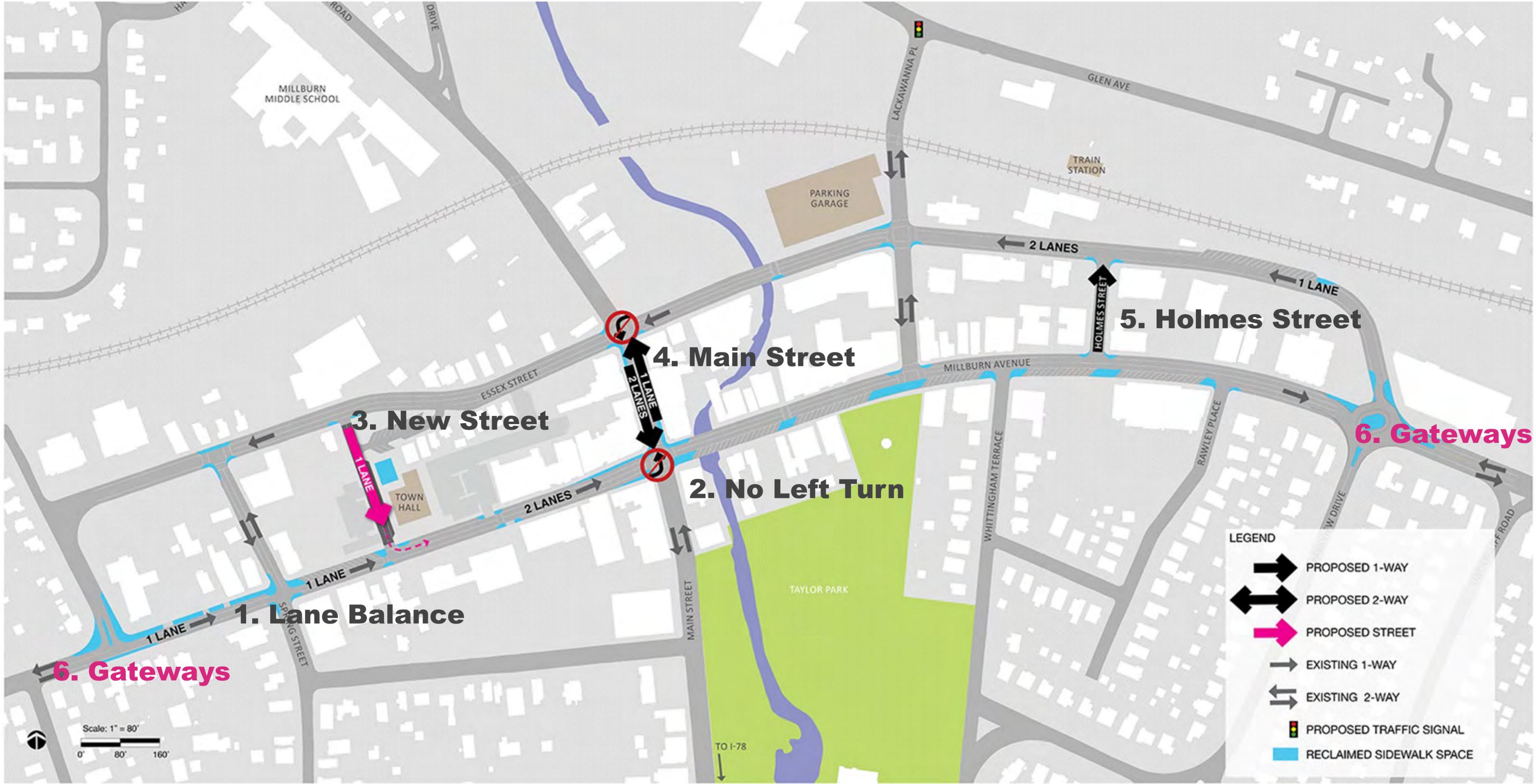
Proposed Circulation



Main Street



Proposed Circulation



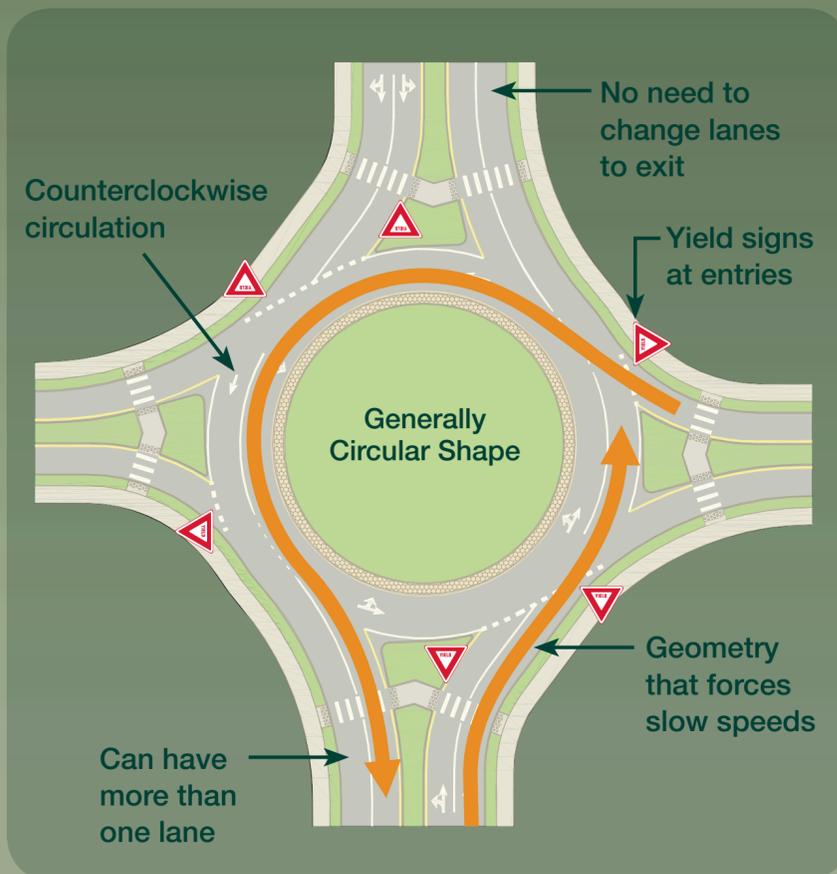
Proposed Circulation

What is a roundabout?

A roundabout is a type of circular intersection with yield control of entering traffic, islands on the approaches, and appropriate roadway curvature to reduce vehicle speeds.

Modern roundabouts are different from rotaries and other traffic circles. For example, roundabouts are typically smaller than the large, high-speed rotaries still in use in some parts of the country. In addition, roundabouts are typically larger than neighborhood traffic circles used to calm traffic.

A roundabout has these characteristics:



Why consider a roundabout?

Compared to other types of intersections, roundabouts have demonstrated safety and other benefits.

Roundabouts:

> Improve safety

- More than 90% reduction in fatalities*
- 76% reduction in injuries**
- 35% reduction in all crashes**
- Slower speeds are generally safer for pedestrians

> Reduce congestion

- Efficient during both peak hours and other times
- Typically less delay

> Reduce pollution and fuel use

- Fewer stops and hard accelerations, less time idling

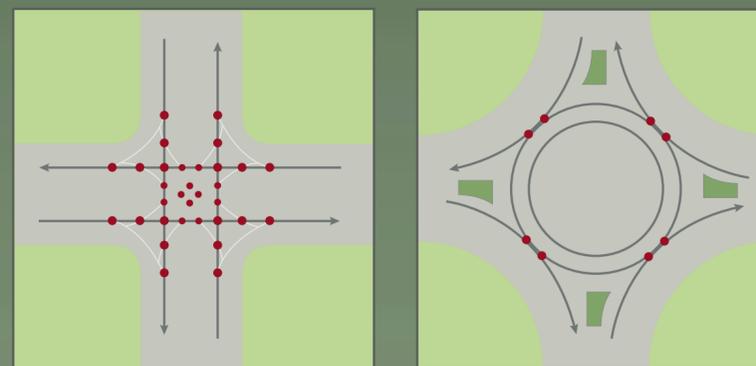
> Save money

- Often no signal equipment to install, power, and maintain
- Smaller roundabouts may require less right-of-way than traditional intersections
- Often less pavement needed

> Complement other common community values

- Quieter operation
- Functional and aesthetically pleasing

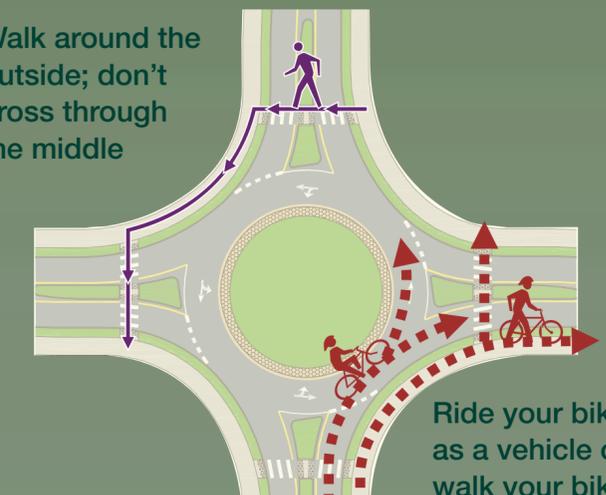
With roundabouts, head-on and high-speed right angle collisions are virtually eliminated.



● Potential vehicle conflict point

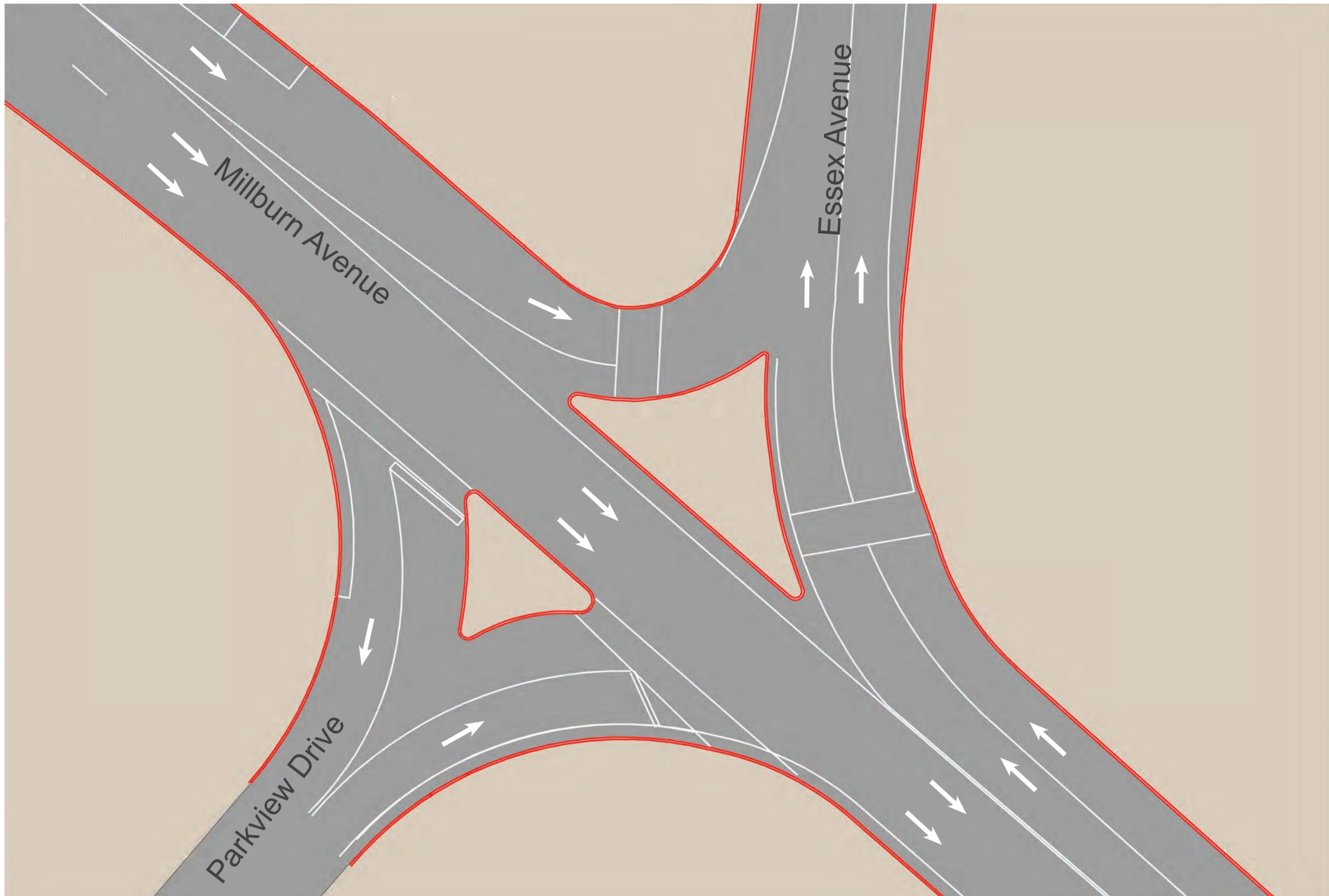
Tips for safely walking and biking through a roundabout

Walk around the outside; don't cross through the middle

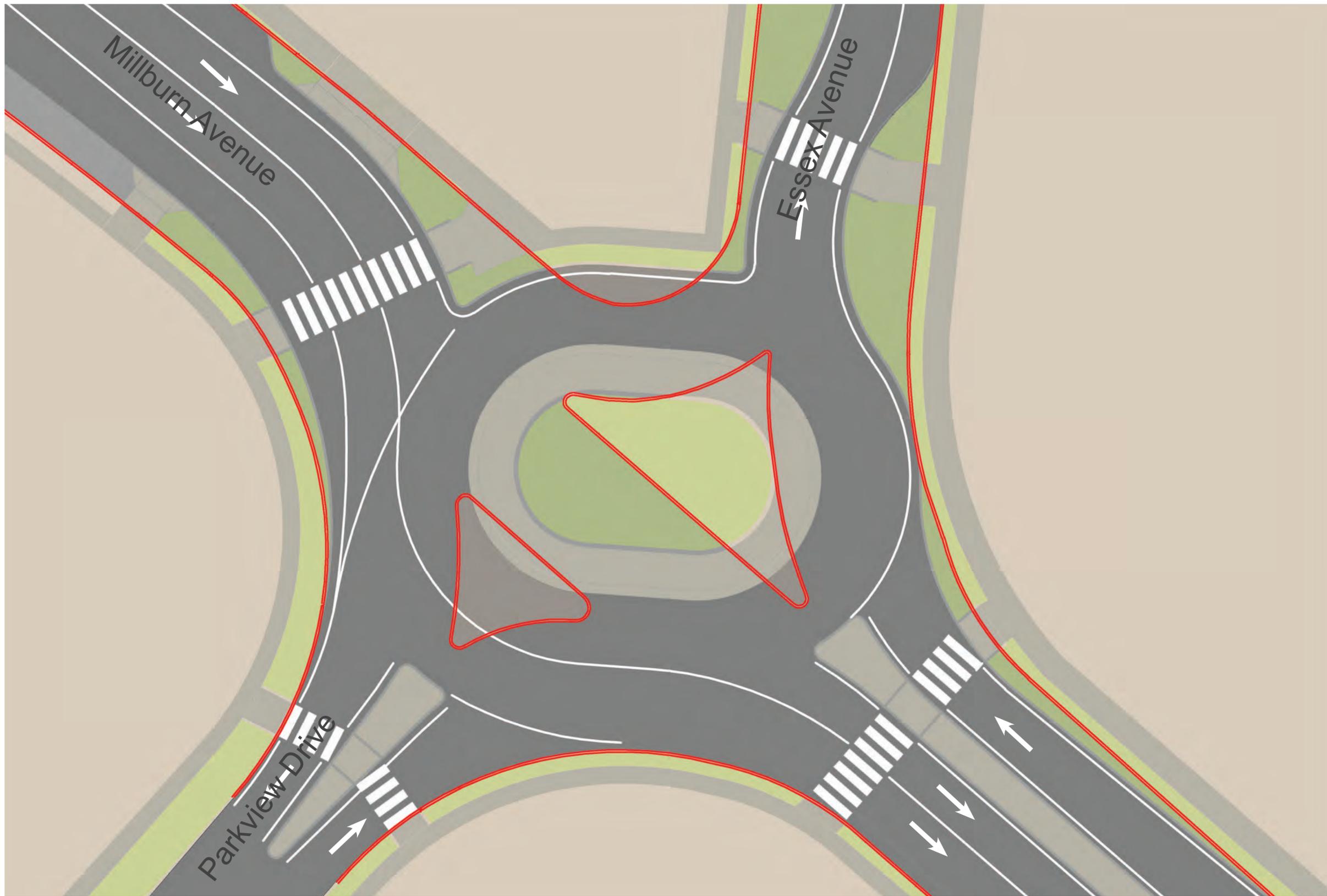


Ride your bike as a vehicle or walk your bike

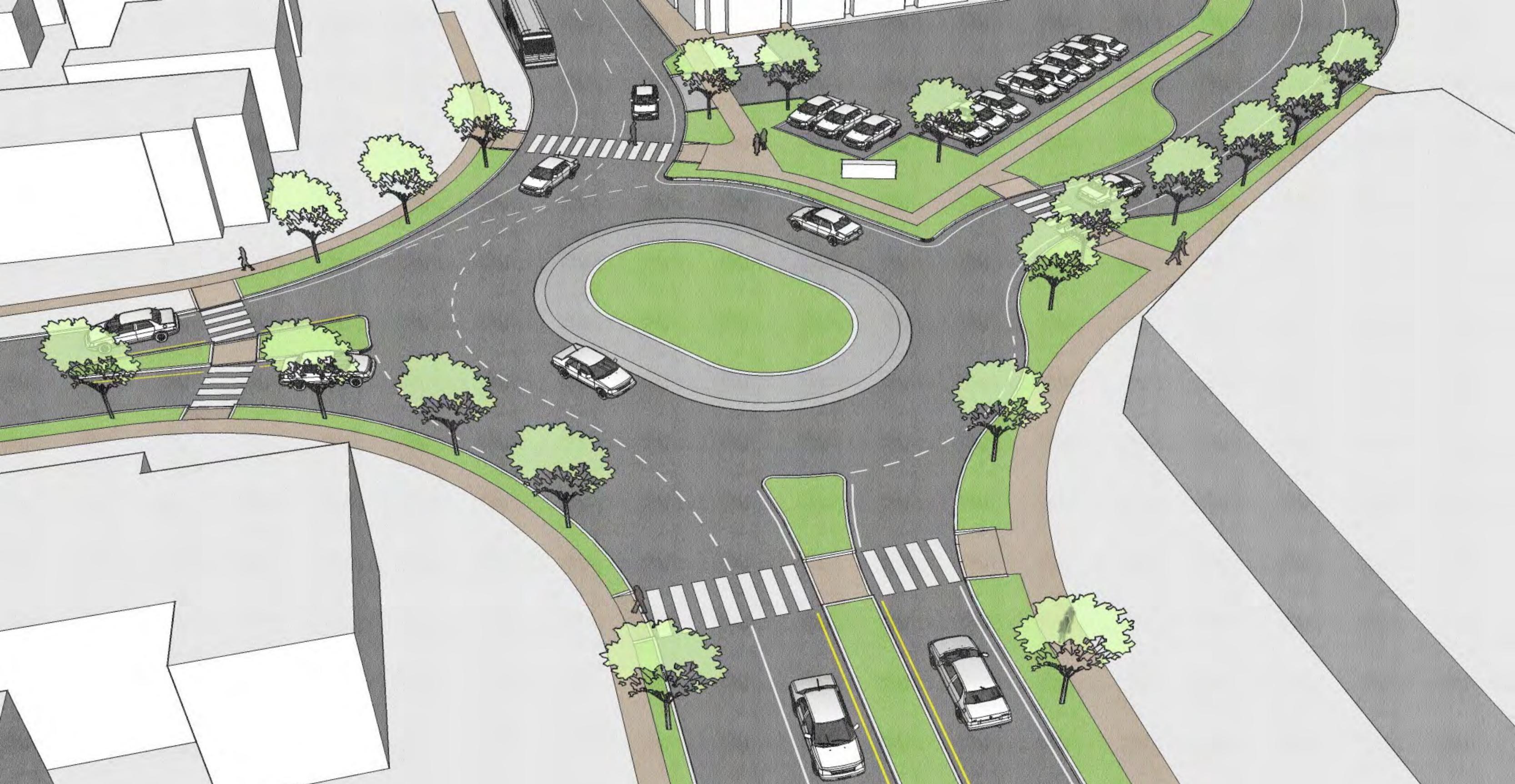
Roundabout



Millburn Ave & Essex St. Existing Intersection



Roundabout at Millburn Ave & Essex St.



Roundabout at Millburn Ave & Essex St.



**TRAFFIC
FLOW**

SAFETY



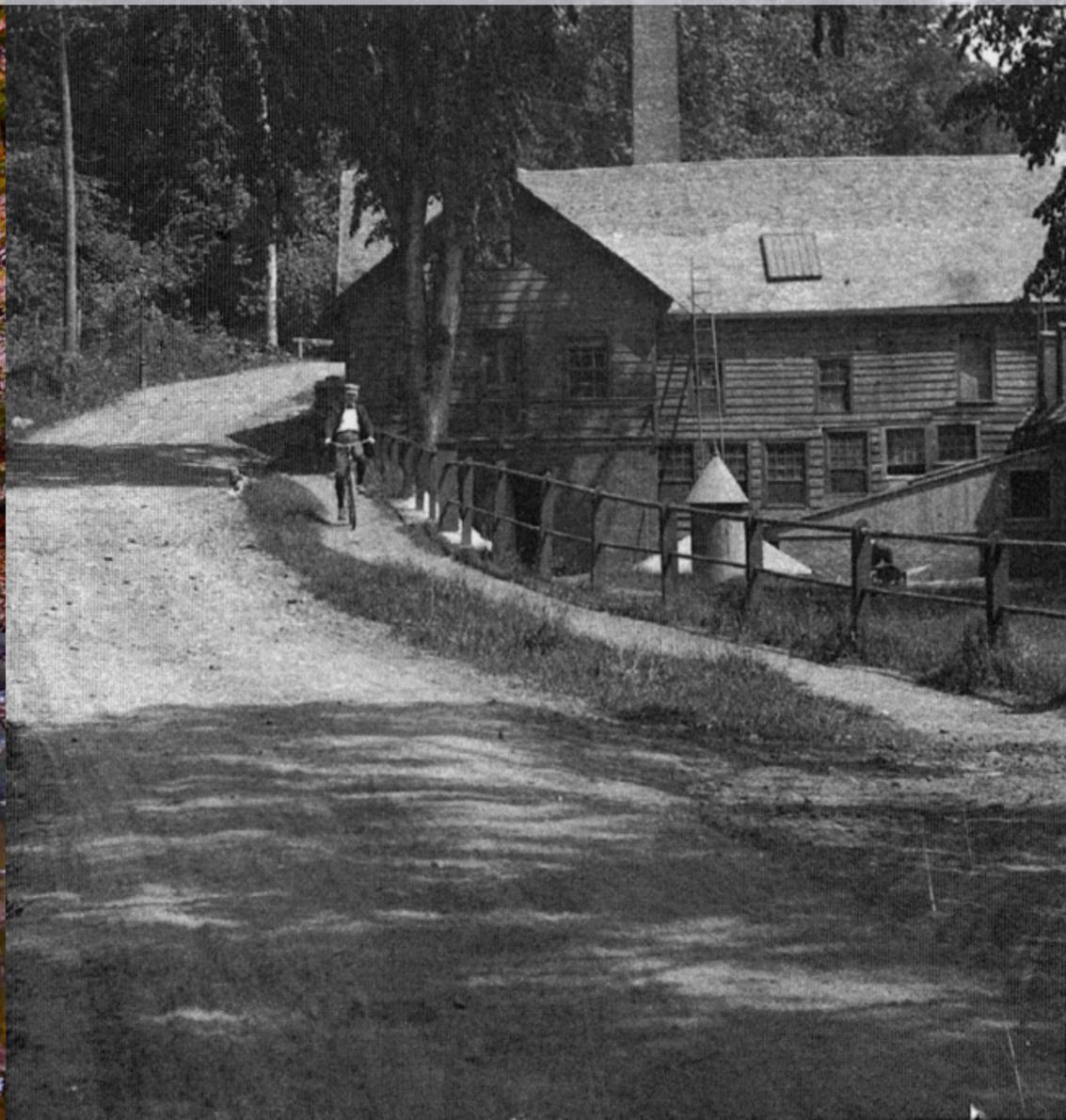
Design Aesthetics



Beauty

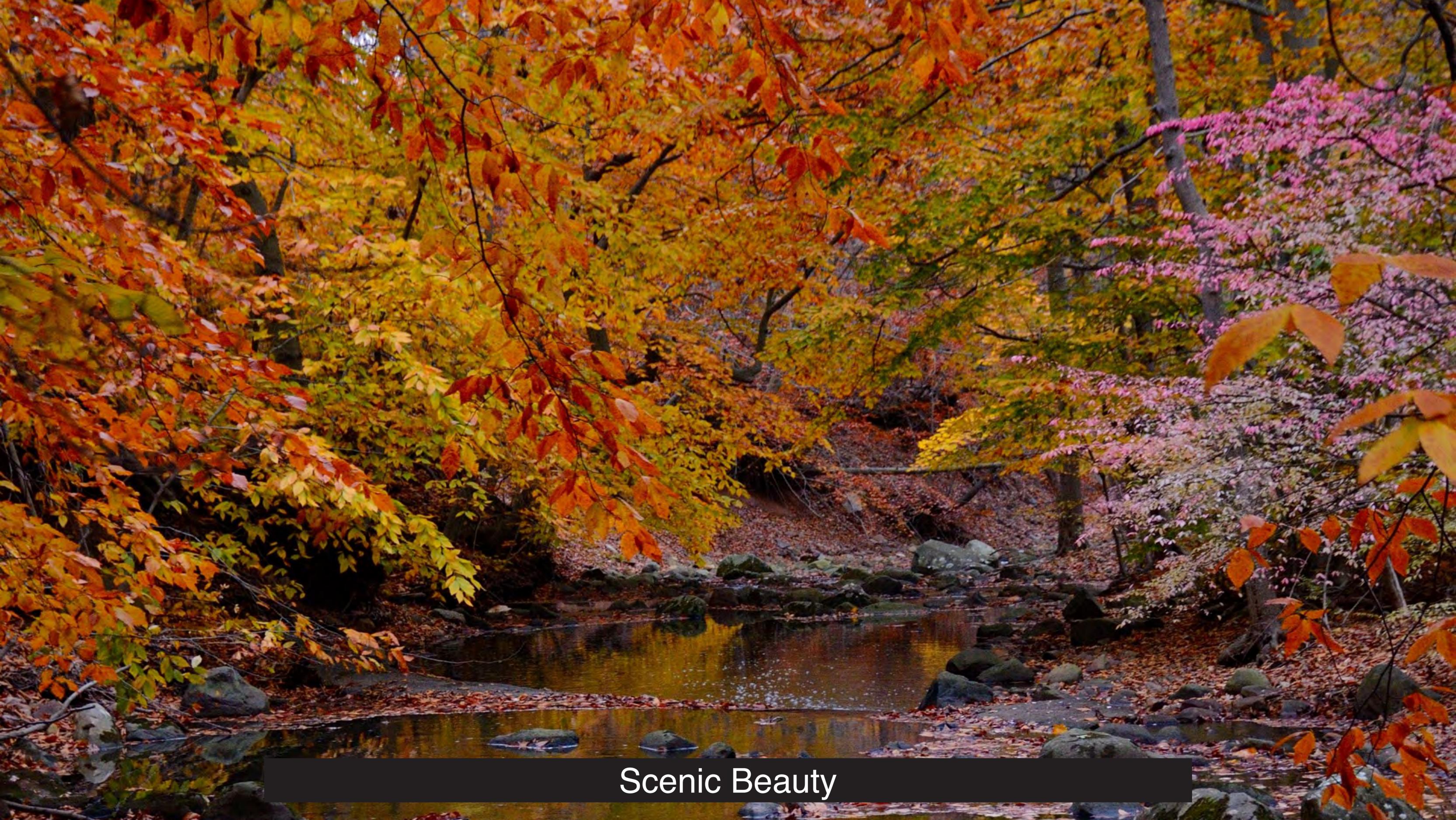
Industry

Community





The Foot of the Watching Mountains



Scenic Beauty



Millburn

“Mill + River”

Scenic Beauty



Paper Mills



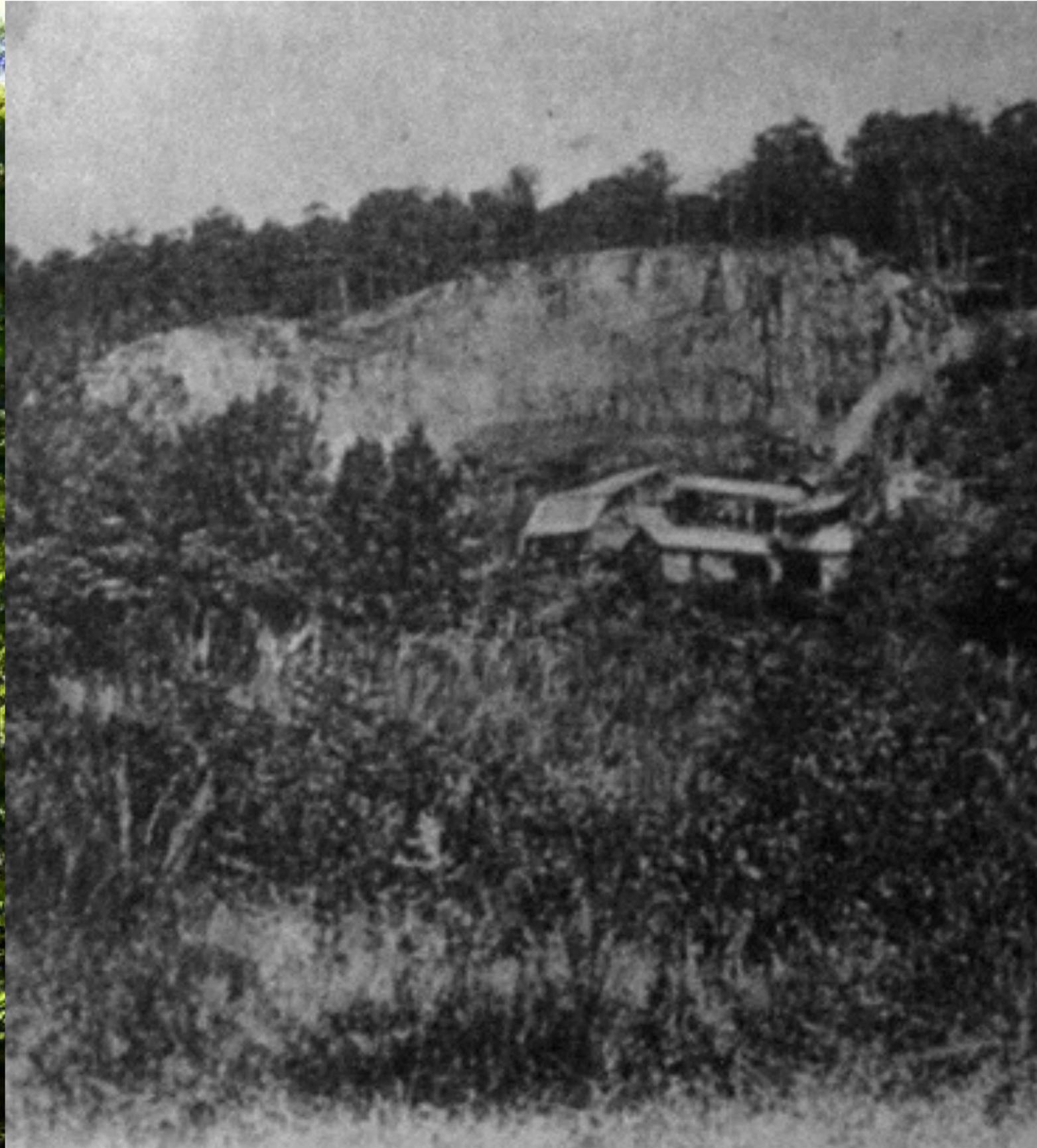
Hat Mills



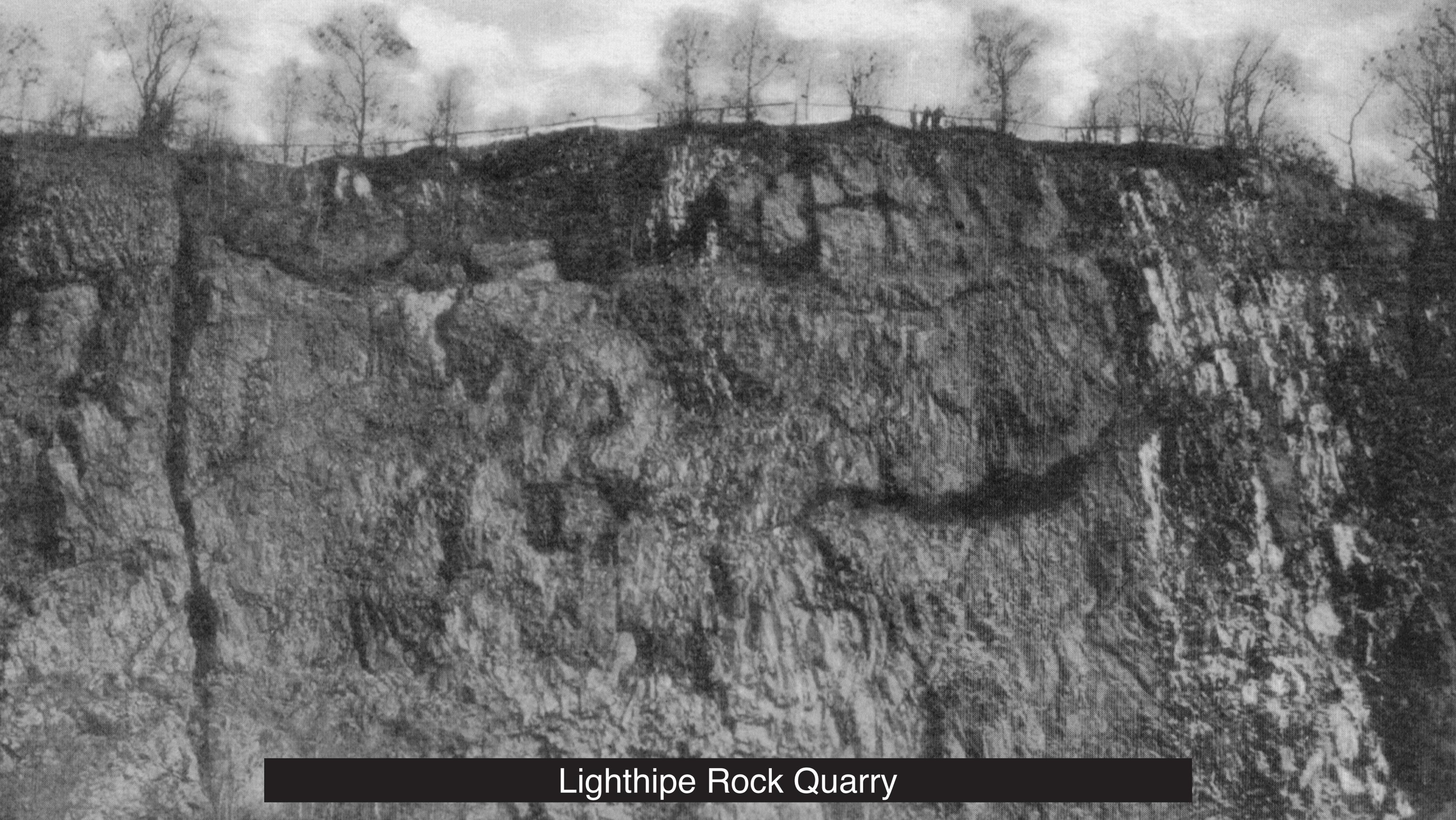
Mill Stones



Washington Rock



Lighthipe Rock Quarry



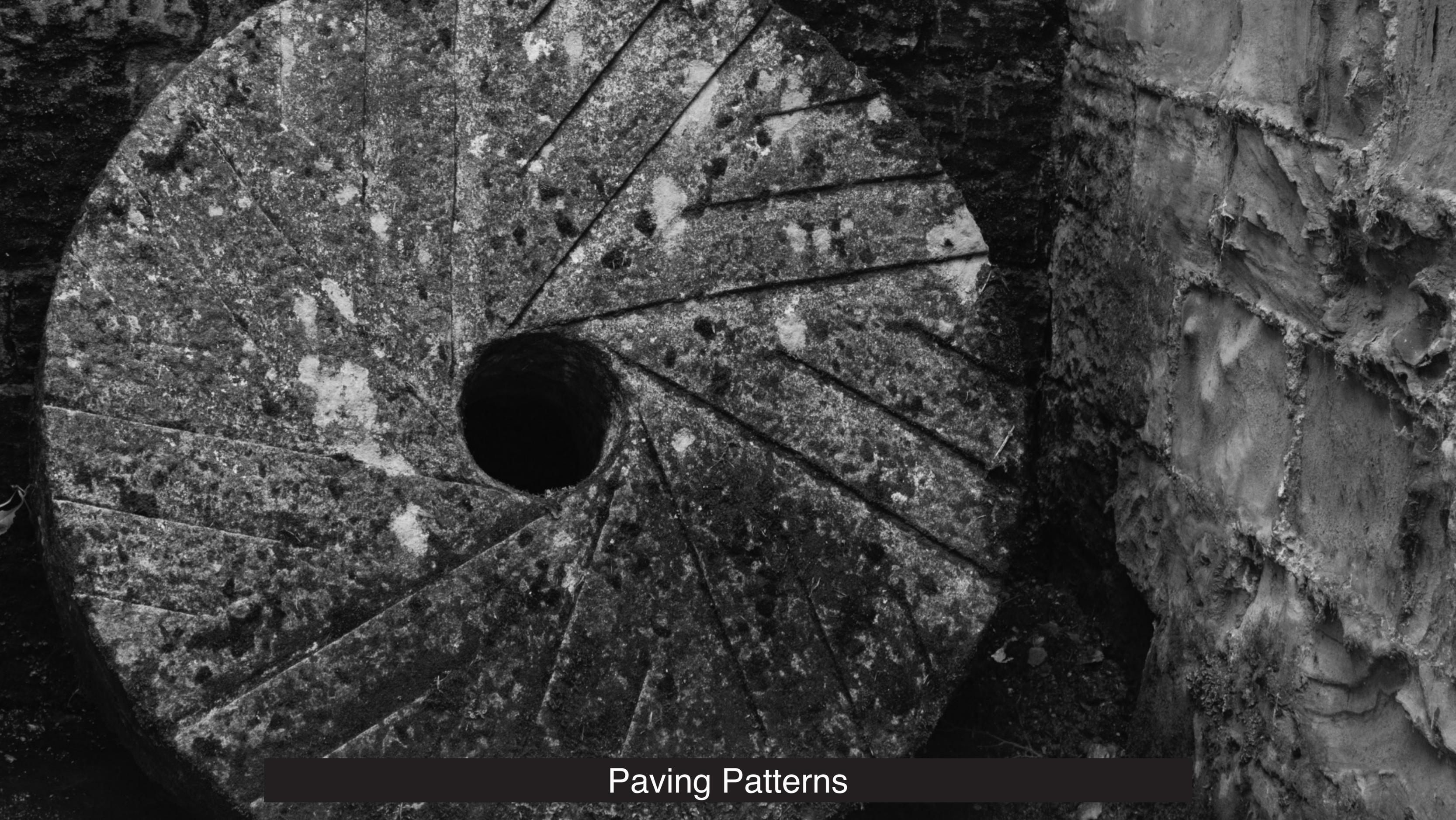
Lighthipe Rock Quarry



Downtown Millburn
“An Interpretive Landscape”



Gateway Monuments & Historic Markers



Paving Patterns



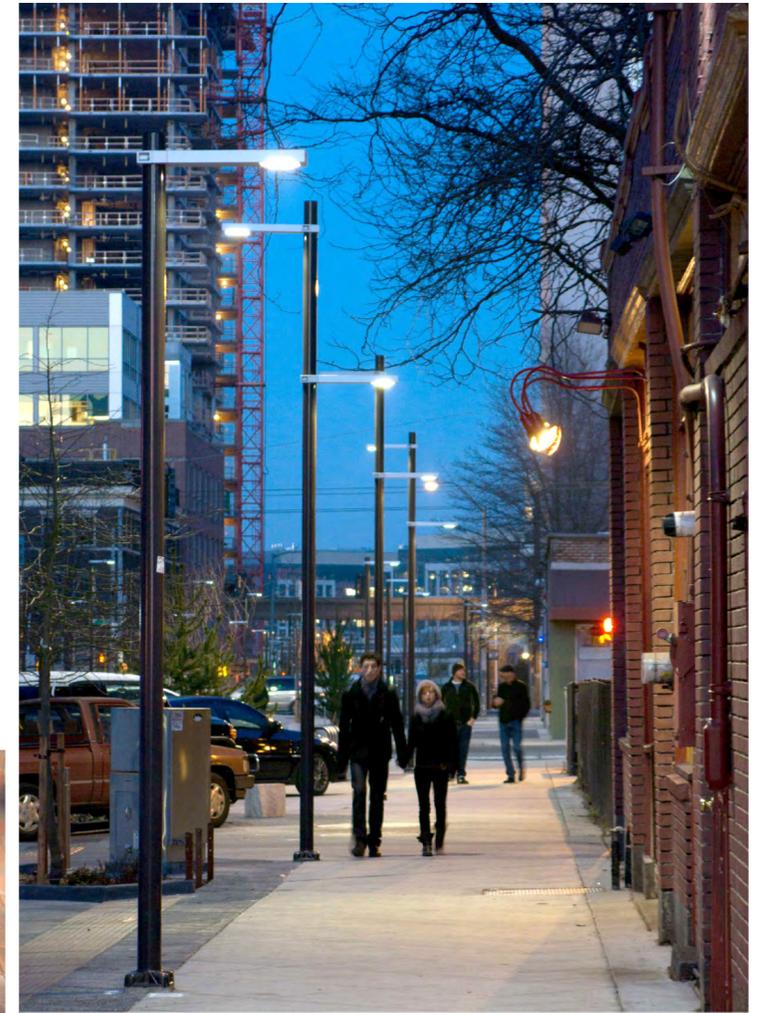
Bench: Multiplicity by Landscape Forms



Bicycle Rack: Bola by Landscape Forms



Trash Rec.: FGP by Landscape Forms



Street Lighting: RAMA by Landscape Forms



Top of bollard etched with millstone



Gateway Treatment: Highly Visible Sculptural Elements



Millstone pavement feature



Removable Bollards



Granite seatwall



Basalt paver



Scored concrete



Granite setts

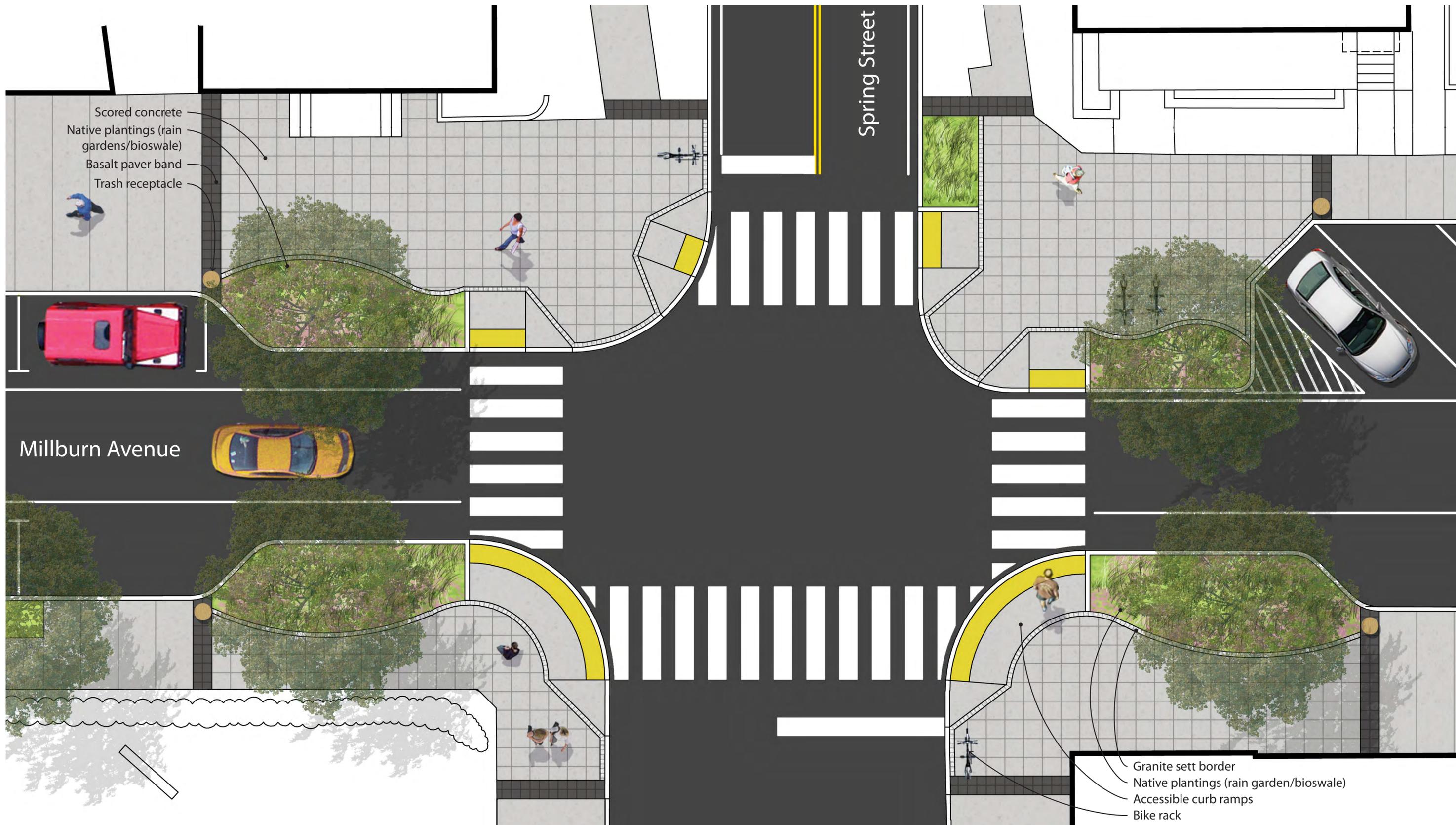


Granite pavers



Native Plantings: Rain gardens / bioswales

Materials & Furniture Palette



Scored concrete
 Native plantings (rain gardens/bioswale)
 Basalt paver band
 Trash receptacle

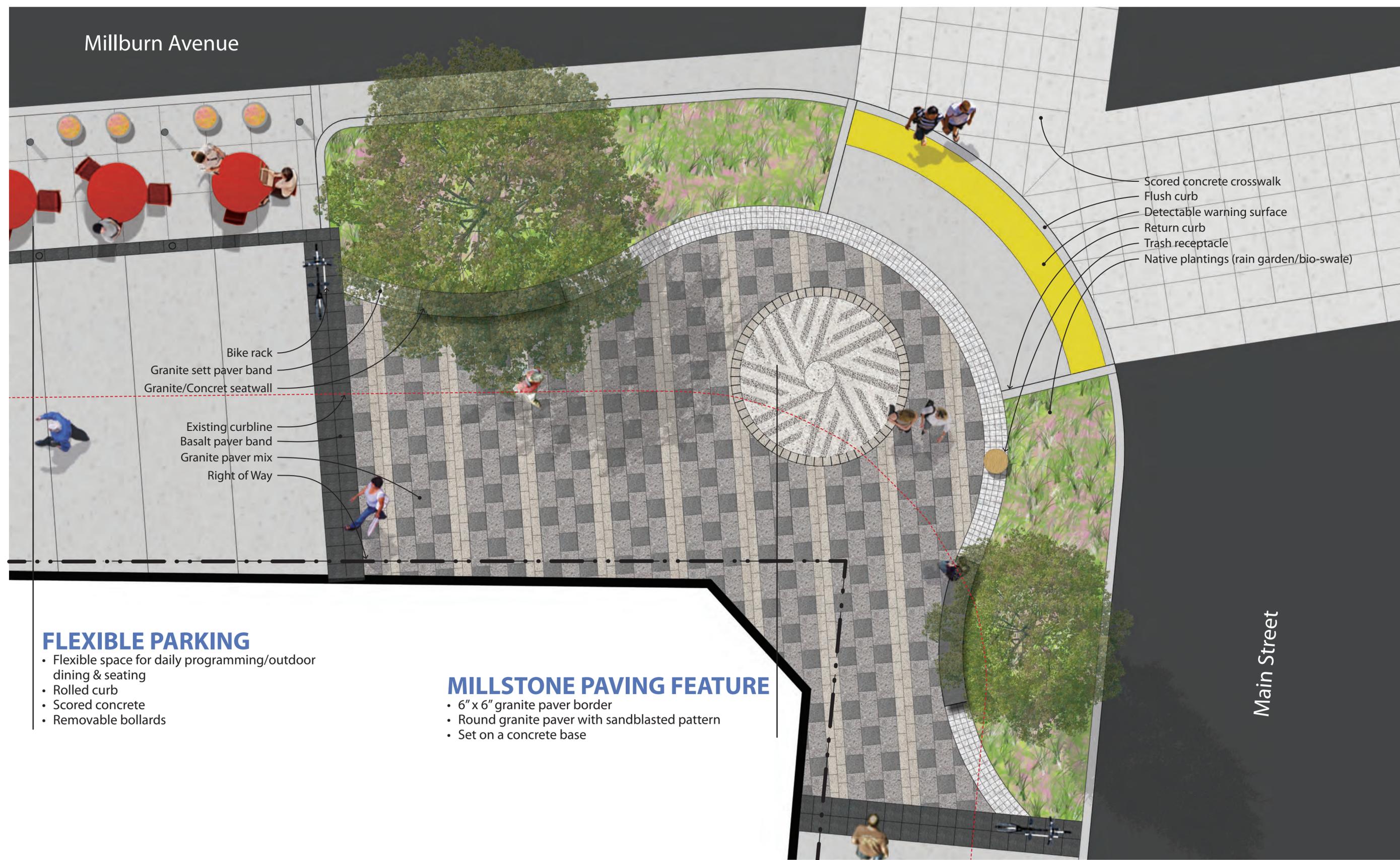
Millburn Avenue

Spring Street

Granite sett border
 Native plantings (rain garden/bioswale)
 Accessible curb ramps
 Bike rack

Typical Intersection Treatment

Millburn Avenue



Bike rack
 Granite sett paver band
 Granite/Concret seatwall

Existing curbline
 Basalt paver band
 Granite paver mix
 Right of Way

Scored concrete crosswalk
 Flush curb
 Detectable warning surface
 Return curb
 Trash receptacle
 Native plantings (rain garden/bio-swale)

FLEXIBLE PARKING

- Flexible space for daily programming/outdoor dining & seating
- Rolled curb
- Scored concrete
- Removable bollards

MILLSTONE PAVING FEATURE

- 6" x 6" granite paver border
- Round granite paver with sandblasted pattern
- Set on a concrete base

Main Street

Enhanced Corner Treatment



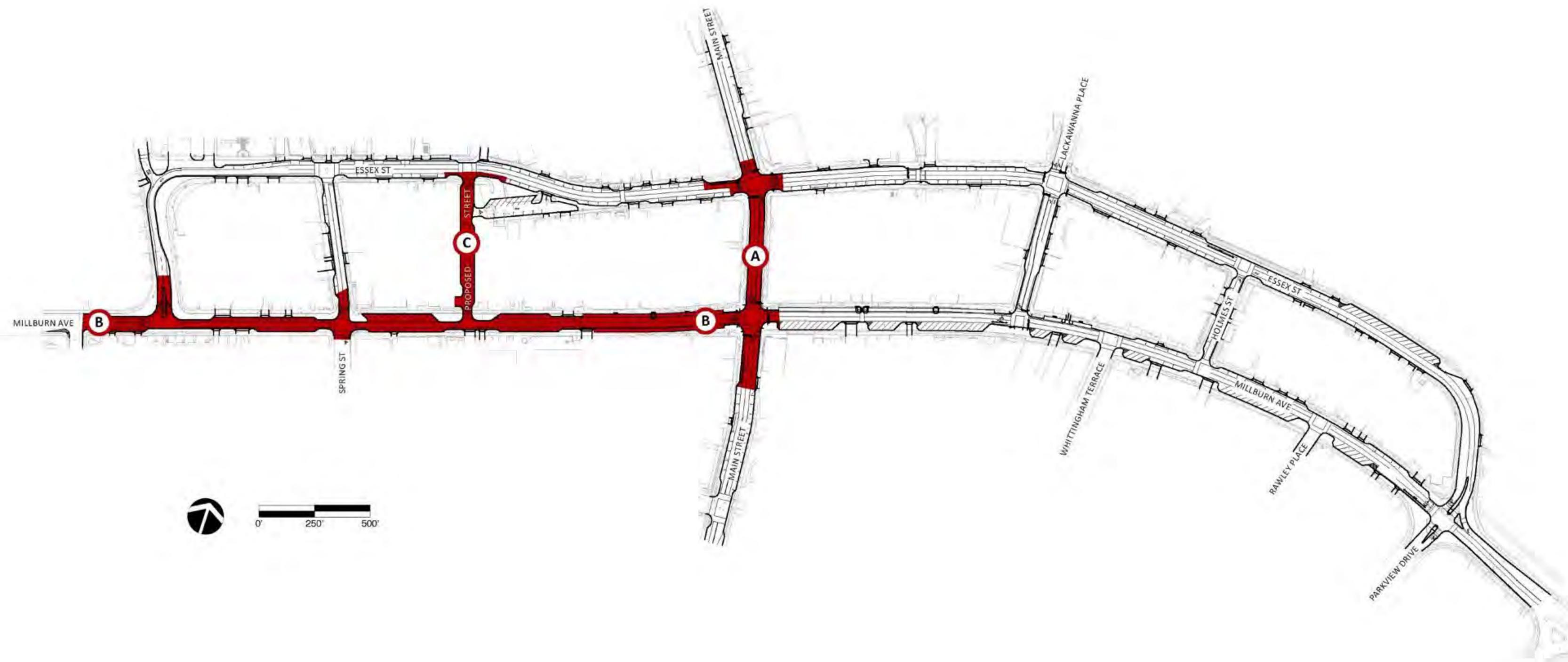
Before: Main St & Millburn Ave



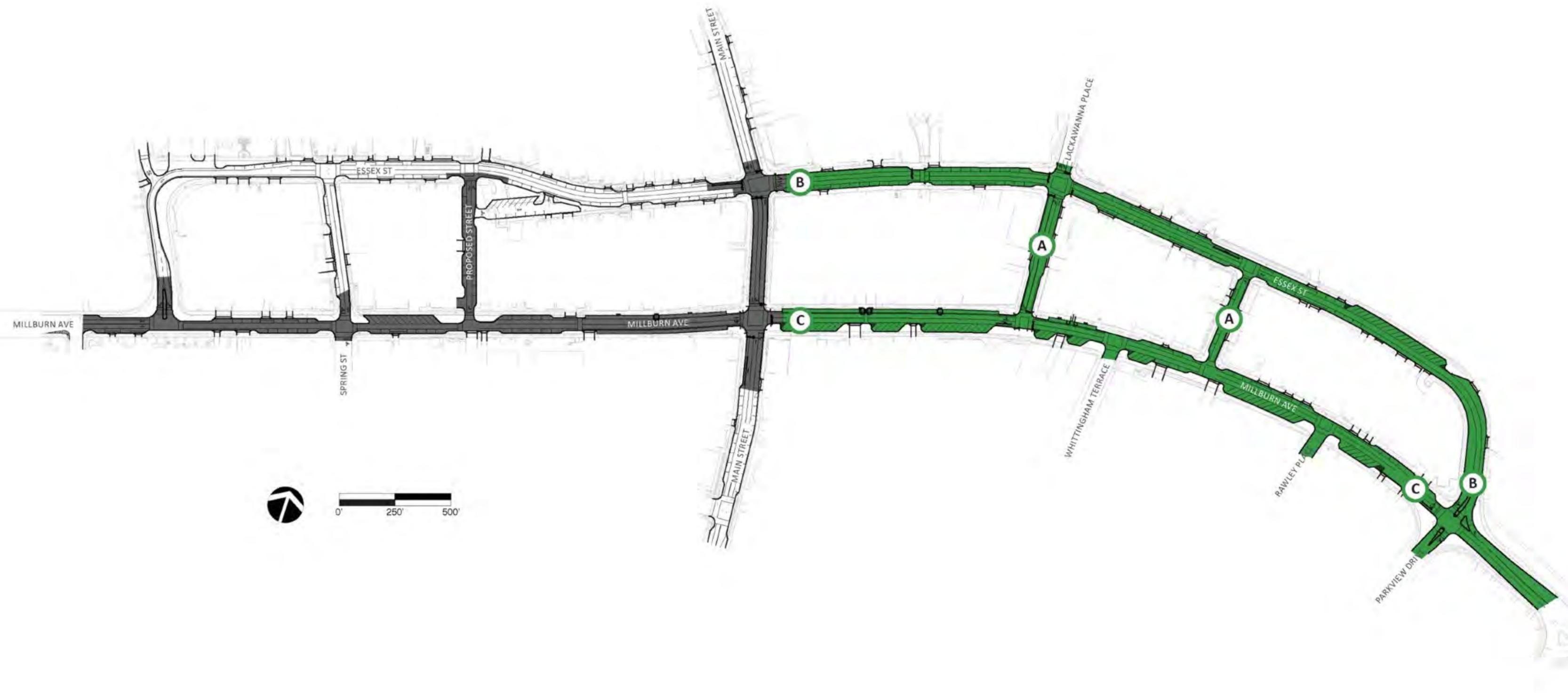
After: Main St & Millburn Ave



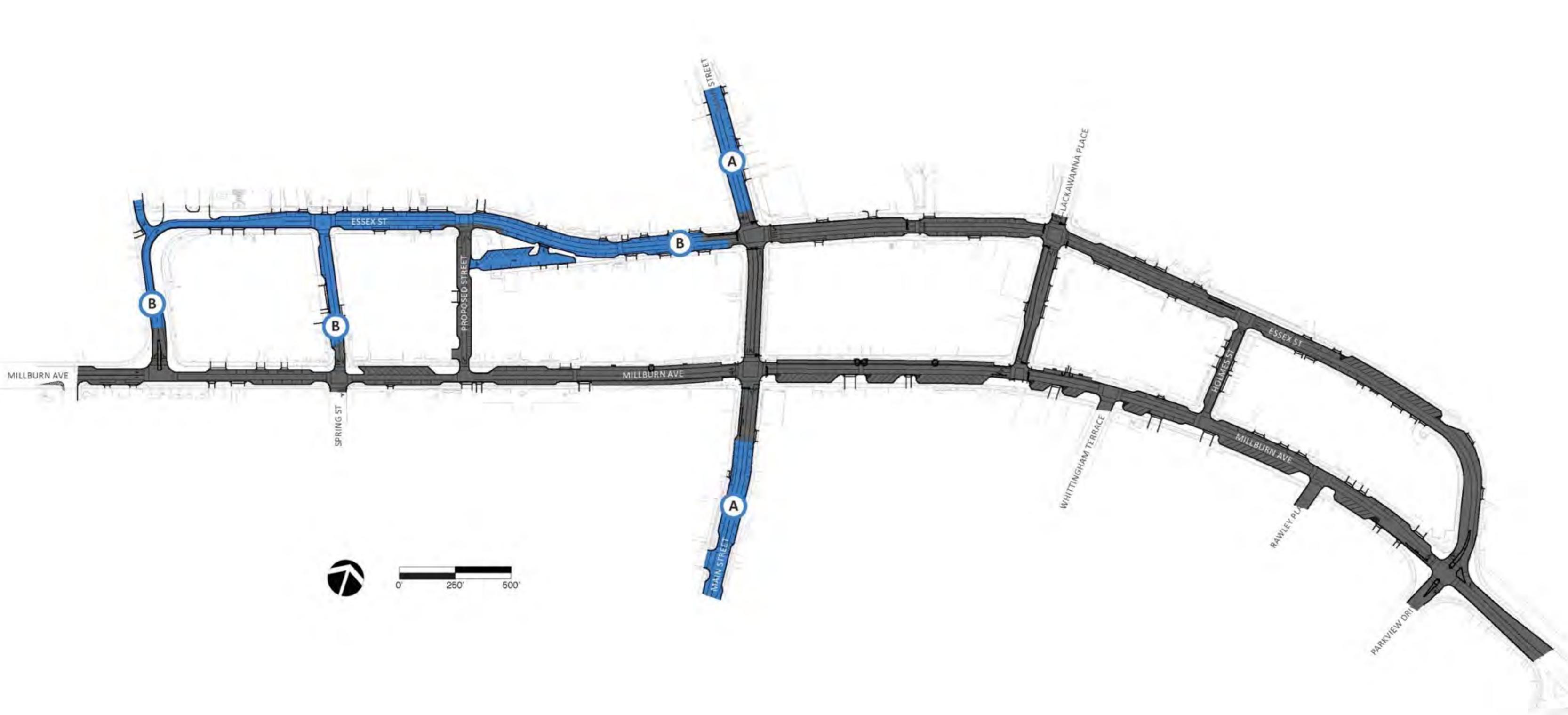
Implementation



Phase 1: Summer / Fall 2016



Phase 2: Spring / Summer 2017



Phase 3: Summer / Fall 2017



Schedule and Immediate Next Steps:

- **Public Open Houses**
- **Phase 1 Final Design**
- **Phase 1 Bidding and Construction**

