

pedestrian safety - vehicular circulation - economic vitality



Township of Millburn

October 2017

High Performance Streets: From Concept to Construction

NJ Complete Streets Summit 2017

Complete Streets

“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.....”



Complete Streets

“...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.”



Complete Streets

“...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





Arterial

Bringing life to our streets

David Lustberg, LLA, PP

CEO + Managing Principal

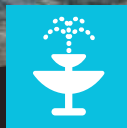
dave@ArterialStreets.com

www.ArterialStreets.com

High Performance Streets



Functionality



Arts and Culture



Health and the Environment



Economic Vitality



Design Quality

High Performance Streets Process (HPSP)

01

PLAN

Capital Improvements Plan is the foundation for rebuilding your town's most important public asset.

DRAW

Schematic drawings layout the entire street design.

02

03

BUILD

Construction drawings and specifications enable us to get busy executing.

Millburn Complete Streets and Traffic Calming



Millburn Complete Streets and Traffic Calming

Is a comprehensive capital improvement strategy to address pedestrian safety, vehicular circulation and economic vitality in downtown.





ONLY ONLY

ONE WAY



Midway Ave

KEEP CALM
SHOP
FROM
HERE



FLAMMA WOOD FIRED PIZZA

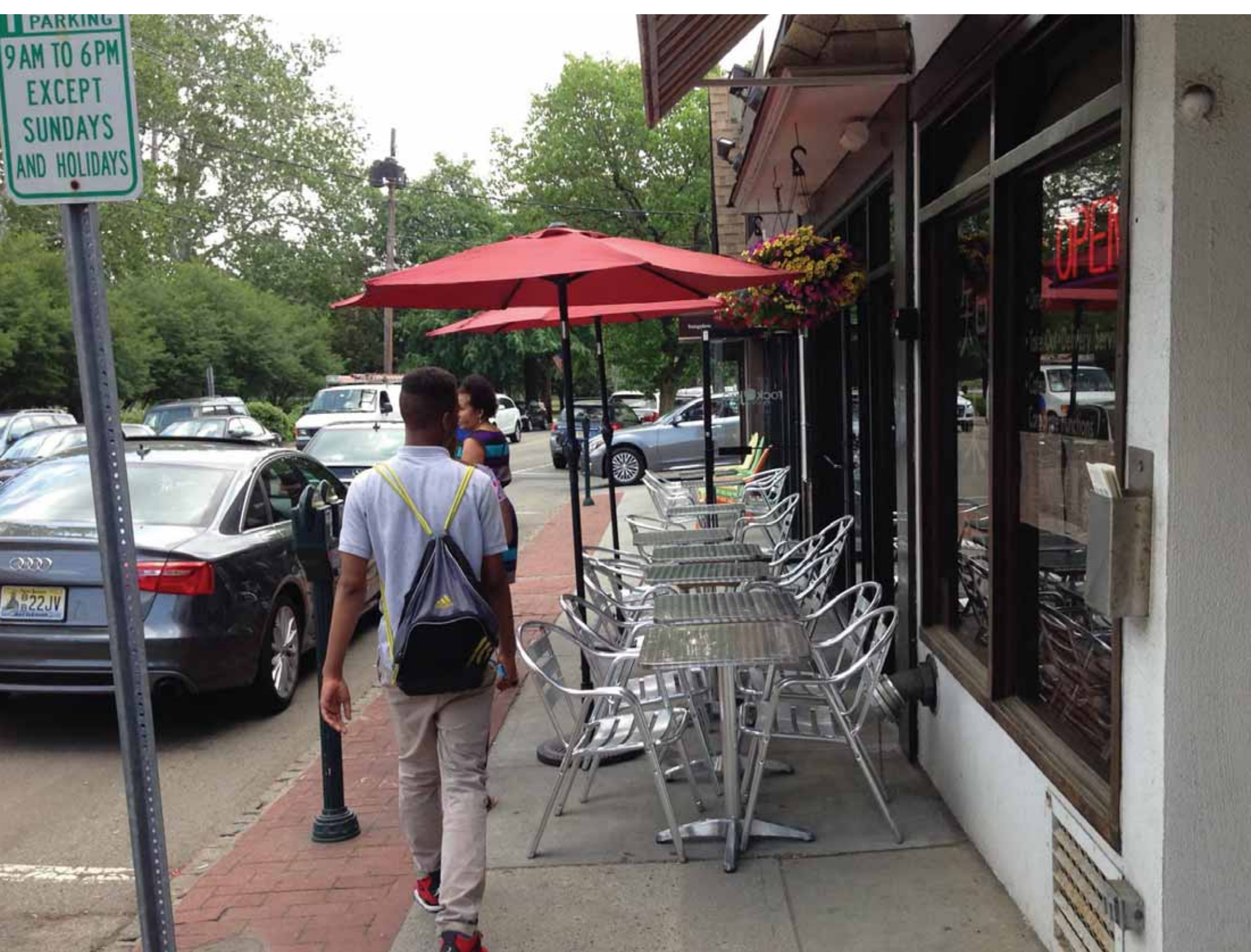
eyeQ
opticians

THERMO KING

AP-3158

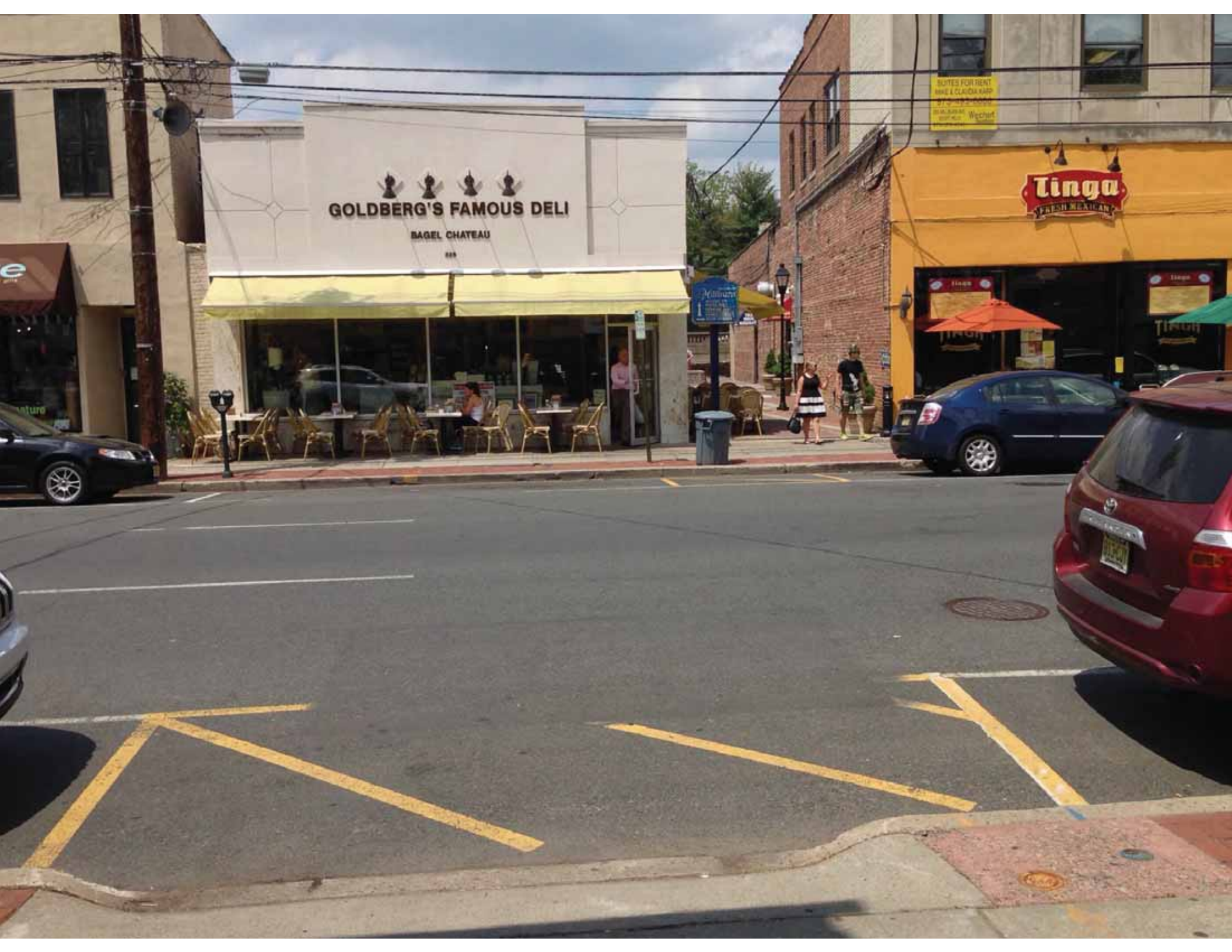


PARKING
9 AM TO 6 PM
EXCEPT
SUNDAYS
AND HOLIDAYS



GOLDBERG'S FAMOUS DELI
BAGEL CHATEAU

Tinga
FRESH MEXICAN





01

PLAN

Capital Improvements Plan is the foundation for rebuilding your town's most important public asset.

DRAW

Schematic drawings layout the entire street design.

02

03

BUILD

Construction drawings and specifications enable us to get busy executing.

Integrated Design Process

Complete Streets Working Group

Core Group

Committee Representatives (2)

Business Administrator (1)

Township Engineer (1)

Police Department - Traffic Division (2)

Expanded Group

Department of Public Works

Fire Department

Downtown Millburn organization (DMDA)

Stakeholder Group

Business Representatives

Residents

Emergency Services

Public Engagement

The Complete Streets Initiative

Is a comprehensive capital improvement strategy to address pedestrian safety, vehicular circulation and economic vitality in downtown.

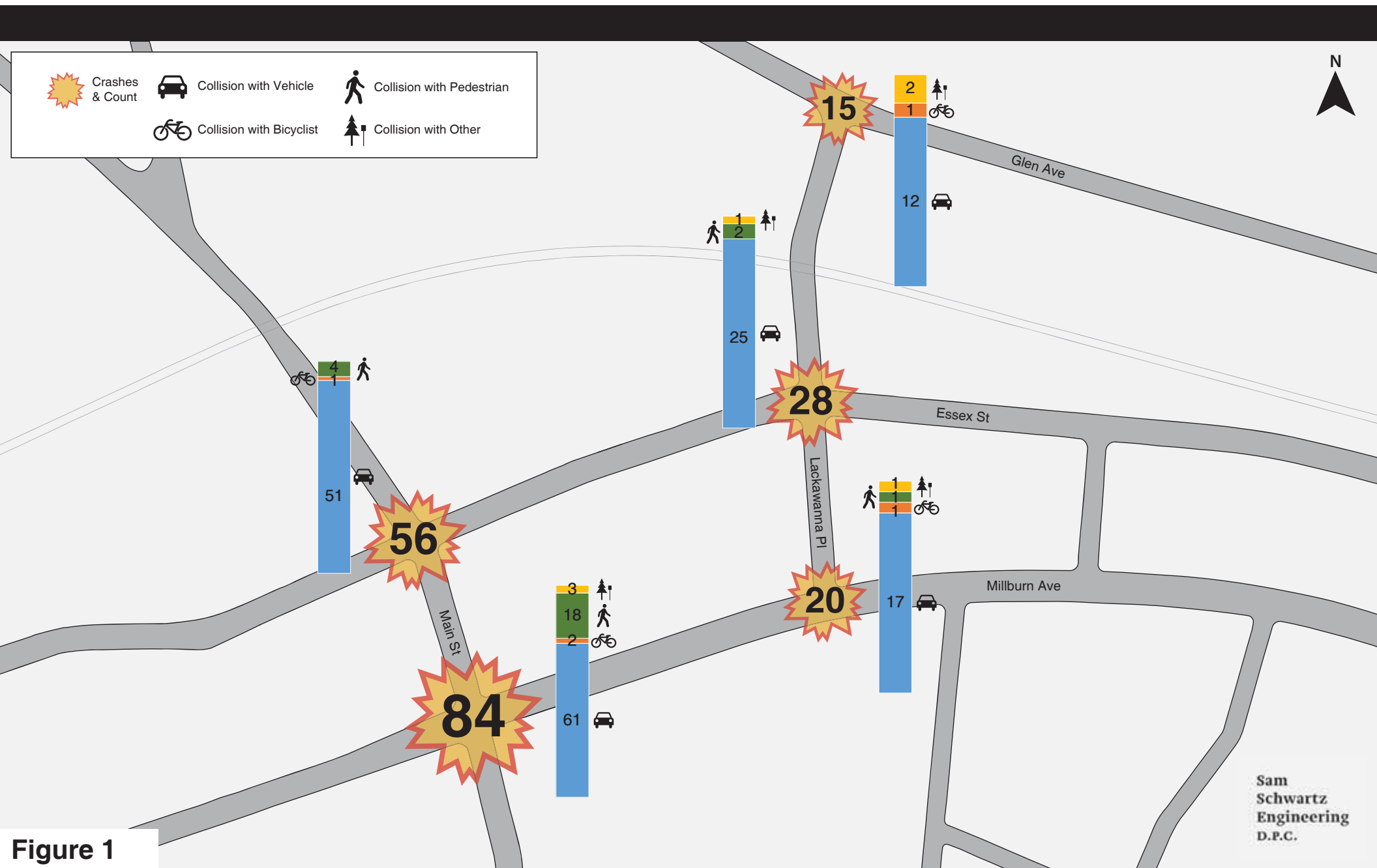


**Create a safe environment
for pedestrians**

**Improve vehicular
circulation & access**

**Support the needs of
adjacent stores &
restaurants**

Data Collection and Traffic Study (2012-2015)



Pedestrian Safety

HIT BY A VEHICLE
TRAVELING AT:

**20
MPH**



9 out of 10 pedestrians survive

HIT BY A VEHICLE
TRAVELING AT:

**30
MPH**



5 out of 10 pedestrians survive

HIT BY A VEHICLE
TRAVELING AT:

**40
MPH**



Only 1 out of 10 pedestrians survives

Pedestrian Safety

HIT BY A VEHICLE
TRAVELING AT:

**20
MPH**



9 out of 10 pedestrians survive

HIT BY A VEHICLE
TRAVELING AT:

**30
MPH**



5 out of 10 pedestrians survive

HIT BY A VEHICLE
TRAVELING AT:

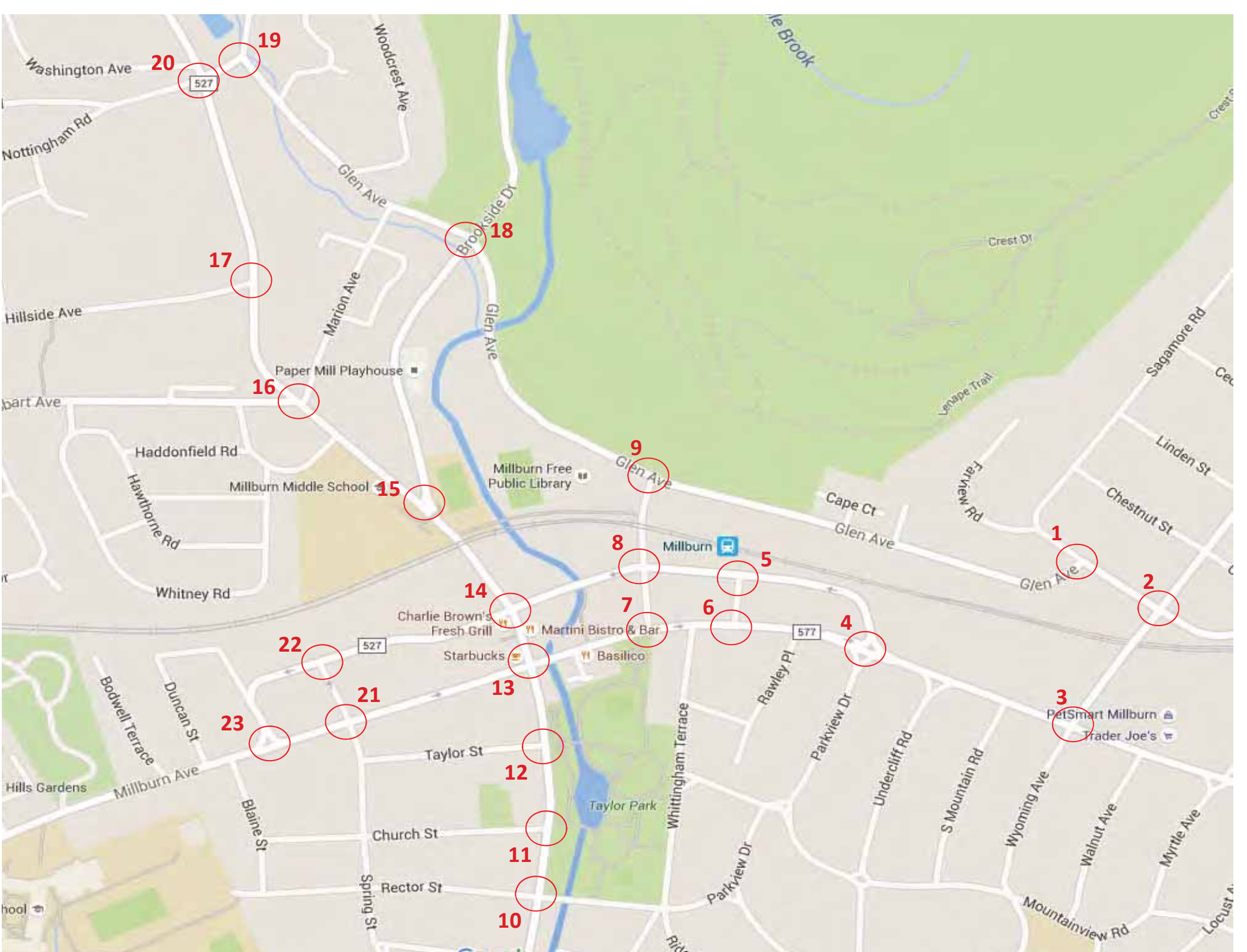
**40
MPH**



Only 1 out of 10 pedestrians survives

**POSTED
SPEED**

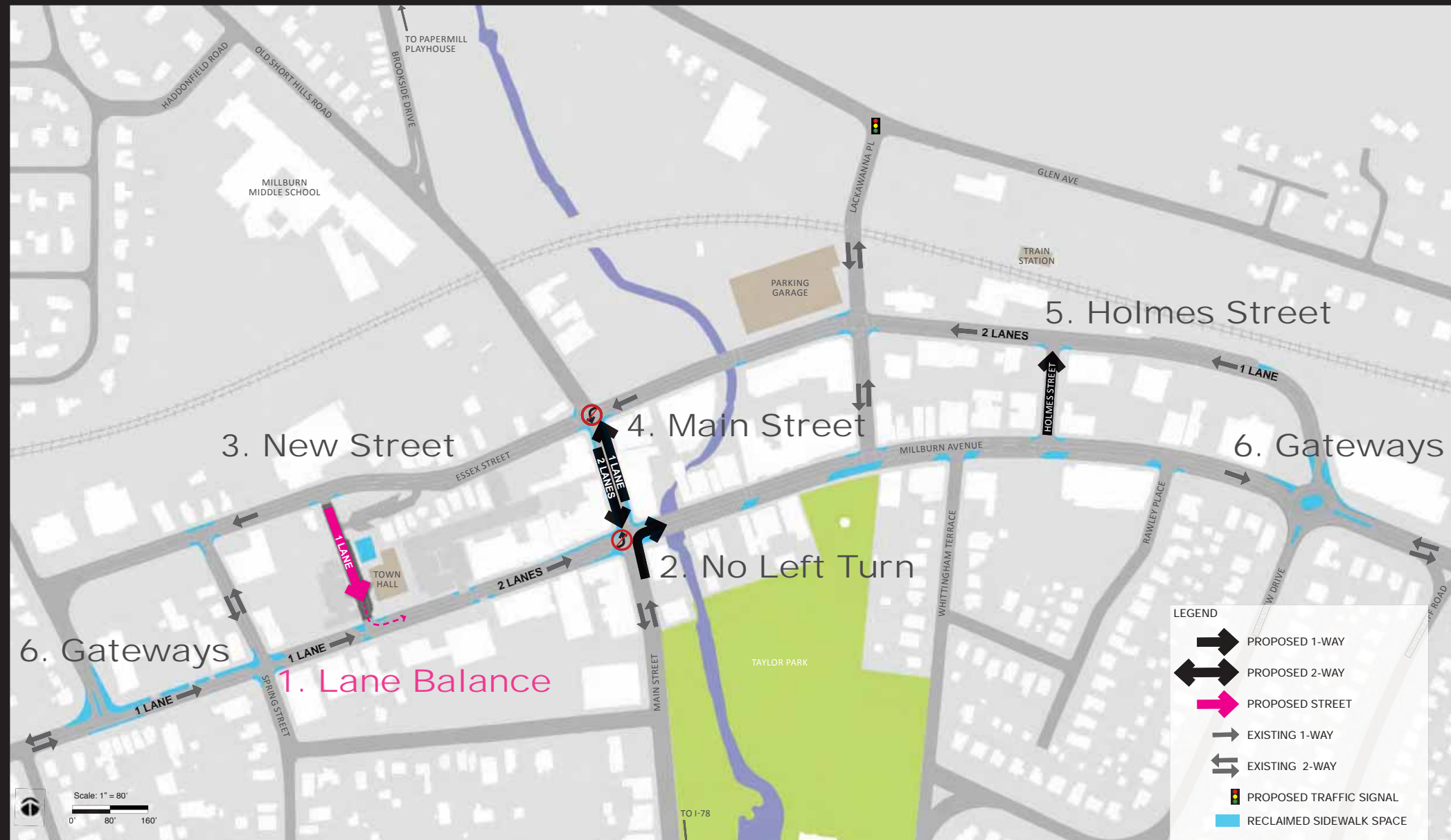
**AVERAGE
SPEED**



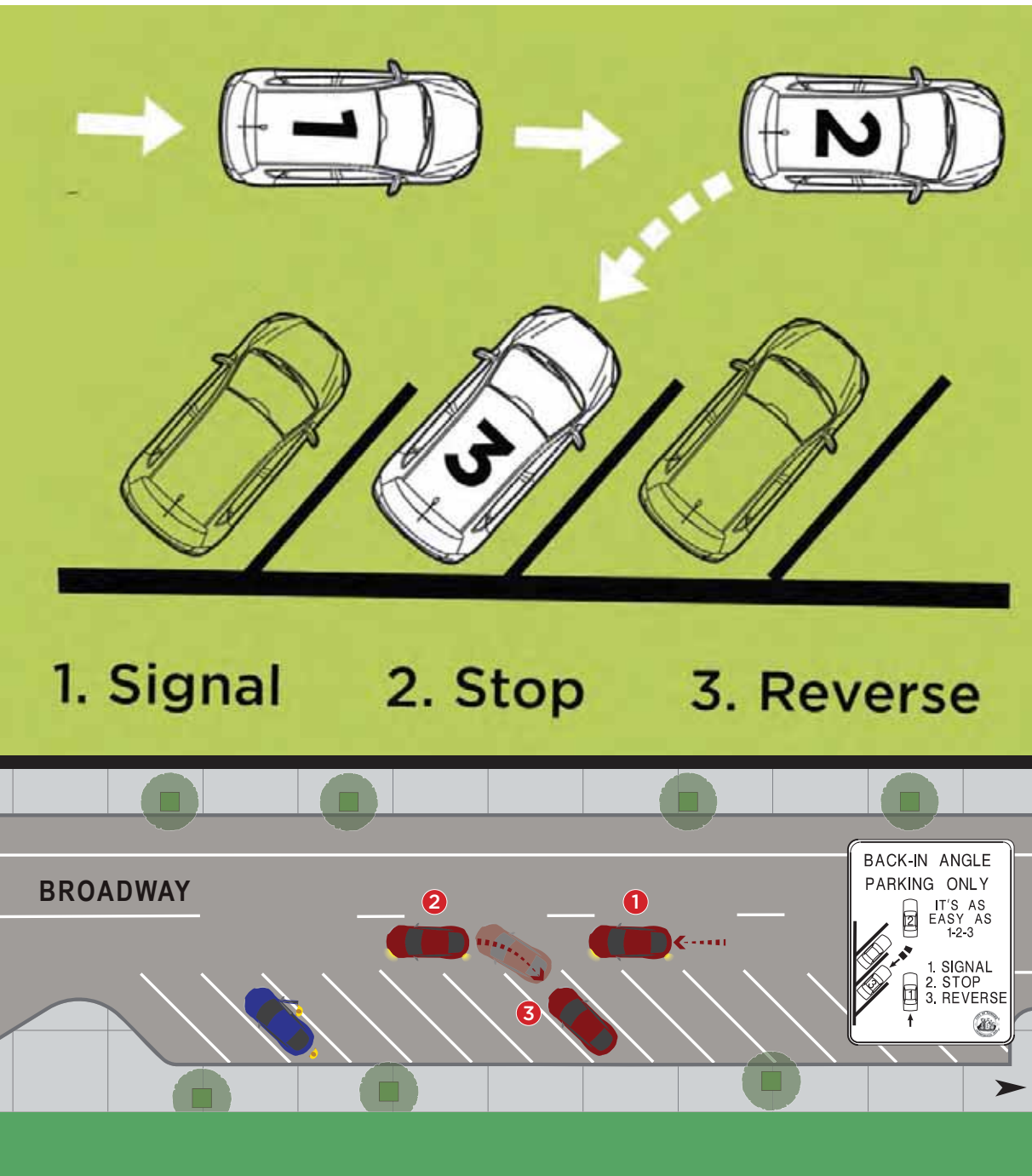
Pedestrian Safety



Circulation & Access



Circulation & Access



Flexible Parking



Community Outreach



Community Outreach



Community Outreach



Community Outreach



Community Outreach



01

PLAN

Capital Improvements Plan is the foundation for rebuilding your town's most important public asset.

DRAW

Schematic drawings layout the entire street design.

02

03

BUILD

Construction drawings and specifications enable us to get busy executing.

Downtown Millburn

"An Interpretive Landscape"



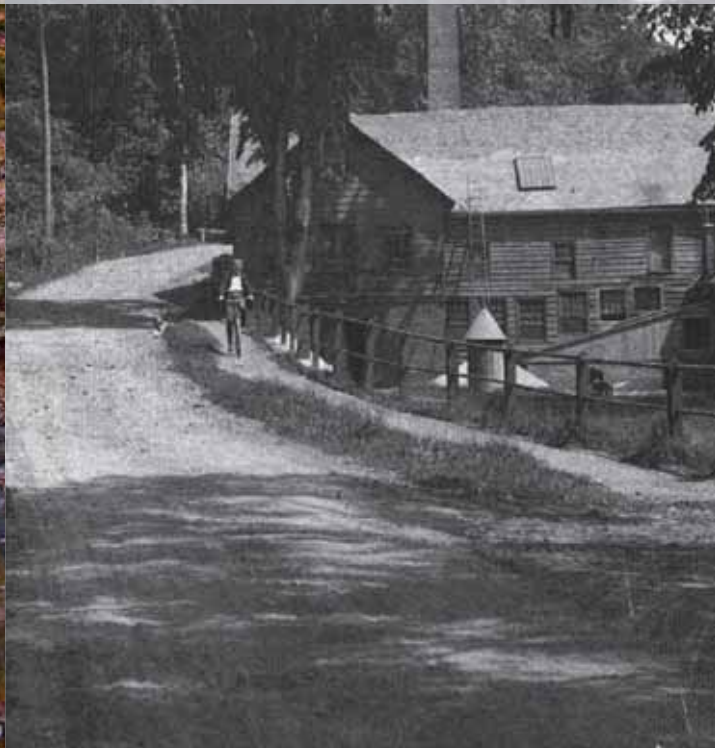
Design Aesthetics



Beauty



Industry



Community



Scenic Beauty

Millburn

"Mill + River"



The Foot of the Watchung Mountains



Paper Mills





Washington Rock



Lighthipe Quarry



Materials & Furniture Palette



Bench: Multiplicity by Landscape Forms



Bicycle Rack: Bola by Landscape Forms



Trash Rec.: Gretchen by LF



Street Lighting: RAMA by Landscape Forms



Top of bollard etched with millstone



Gateway Treatment: Highly Visible Sculptural Elements



Millstone pavement feature



Native Plantings: Rain gardens / bioswales



Removable Bollards



Granite seat wall



Basalt paver



Scored concrete



Granite setts



Granite pavers



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

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

Main Street



01

PLAN

Capital Improvements Plan is the foundation for rebuilding your town's most important public asset.

DRAW

Schematic drawings layout the entire street design.

02

03

BUILD

Construction drawings and specifications enable us to get busy executing.

Construction: Key Considerations

Budget and Construction Costs

- Know your numbers

ADA Compliance

- Understanding the new regulations

Acceptable Level of Disruption

- Store Owners, School, Township Events
- Seasonality and timing

Public / Storeowner Coordination

- Prior to and during construction

Unforeseen Issues

- Below grade conditions
- Weather

Overdue Utility Upgrades

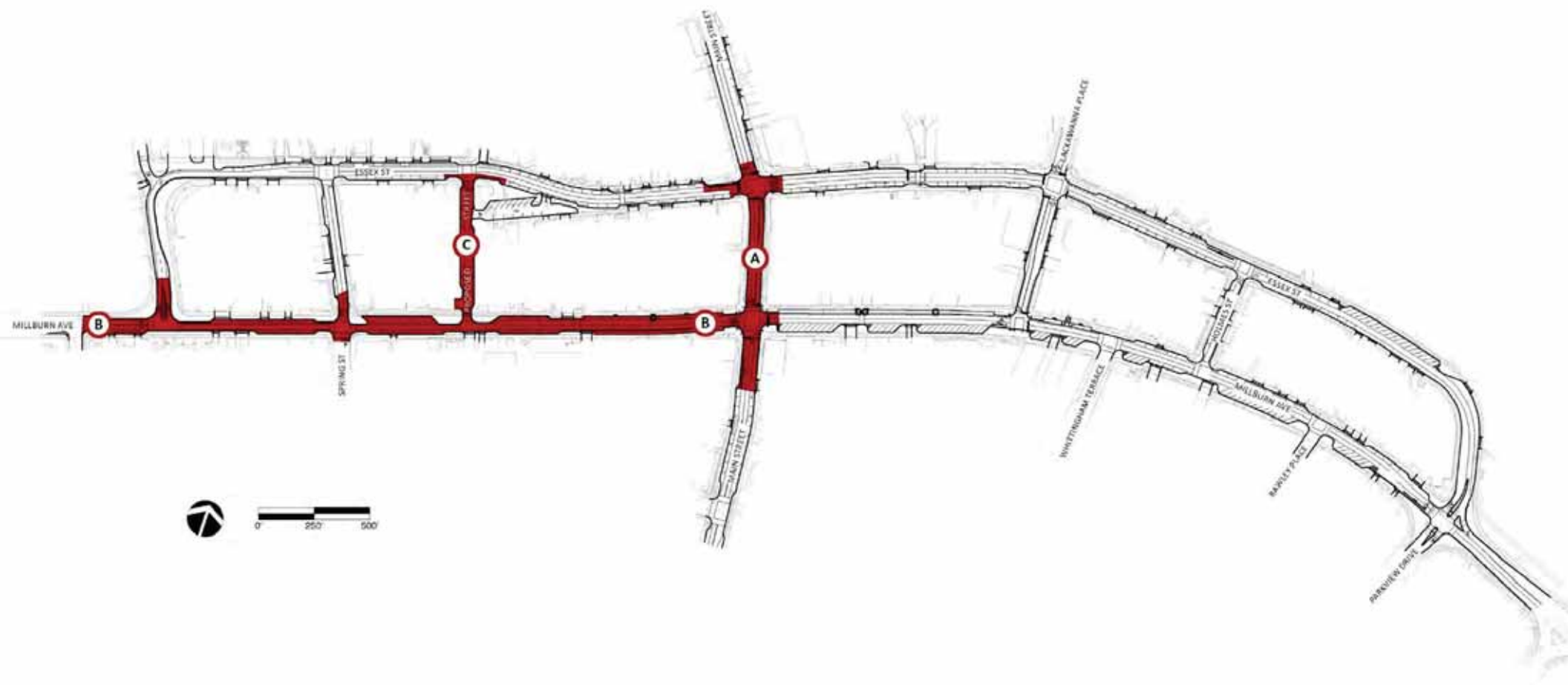
- Water, gas, sewer



KNOW YOUR CONTRACTOR!



EXPECT THE UNEXPECTED



Phase 1: Summer / Fall 2016





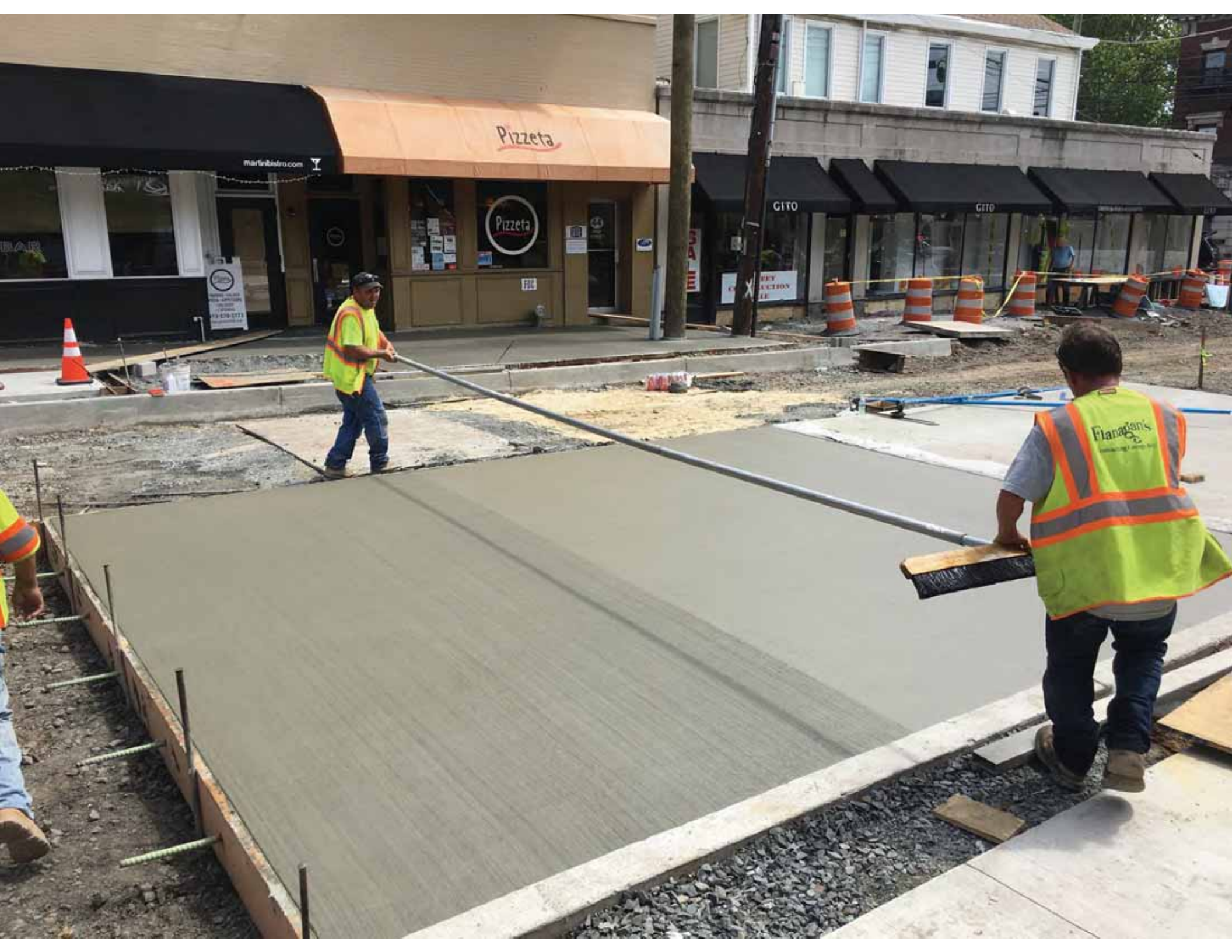




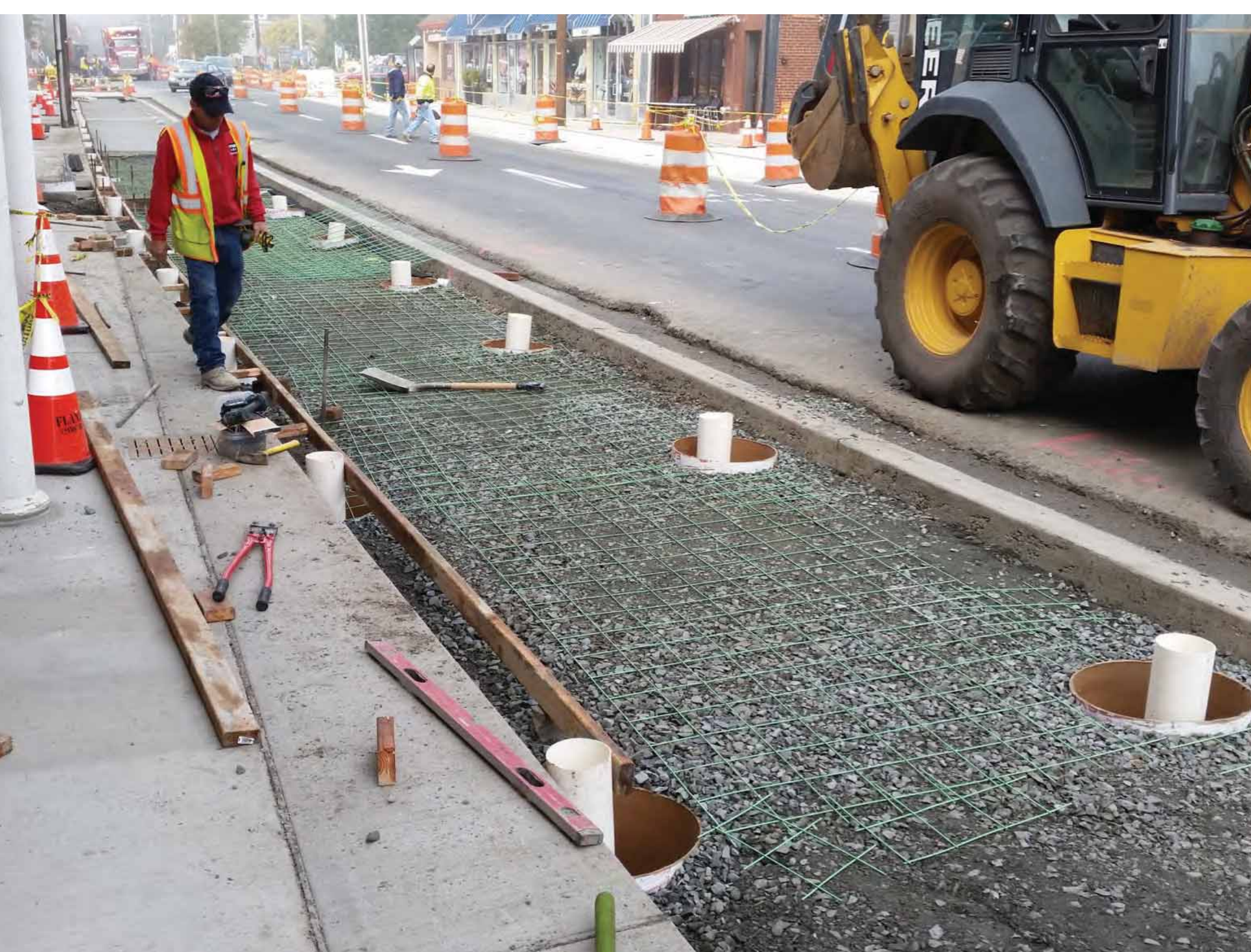




















13'4"

MARY POPPINS
PAPER MILL PLAYHOUSE
MAY 24 - JUN 25



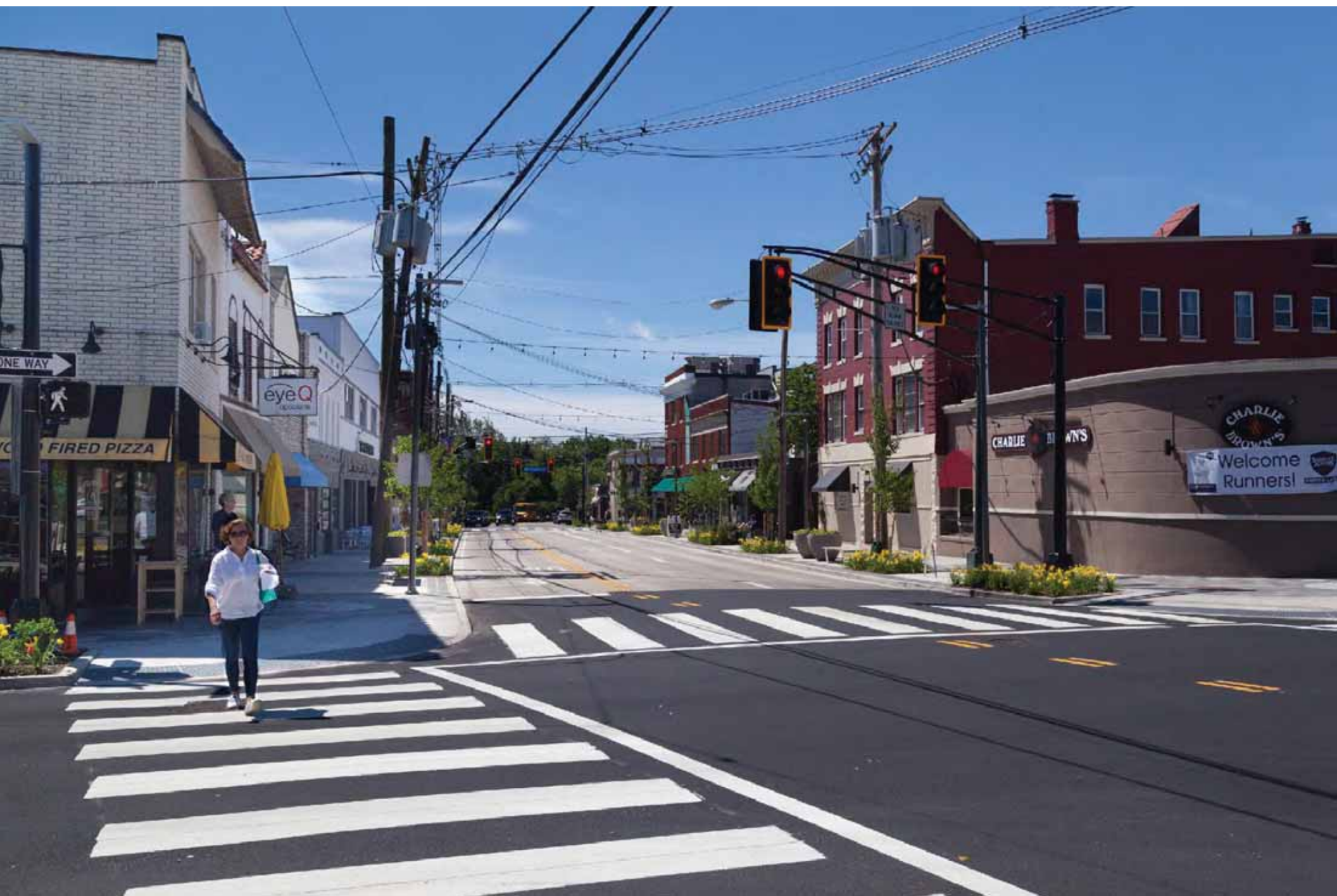
Before & After Photos



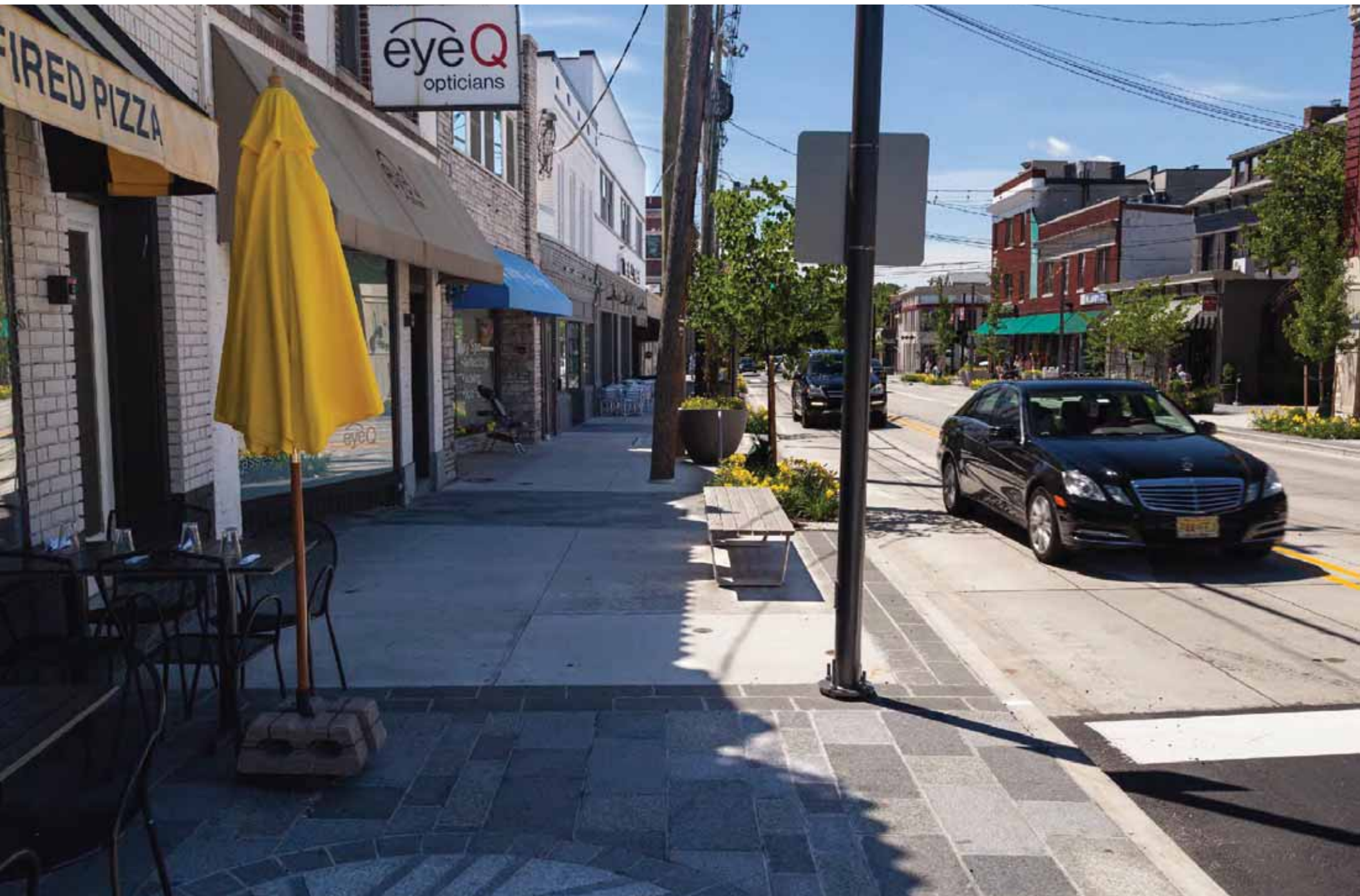


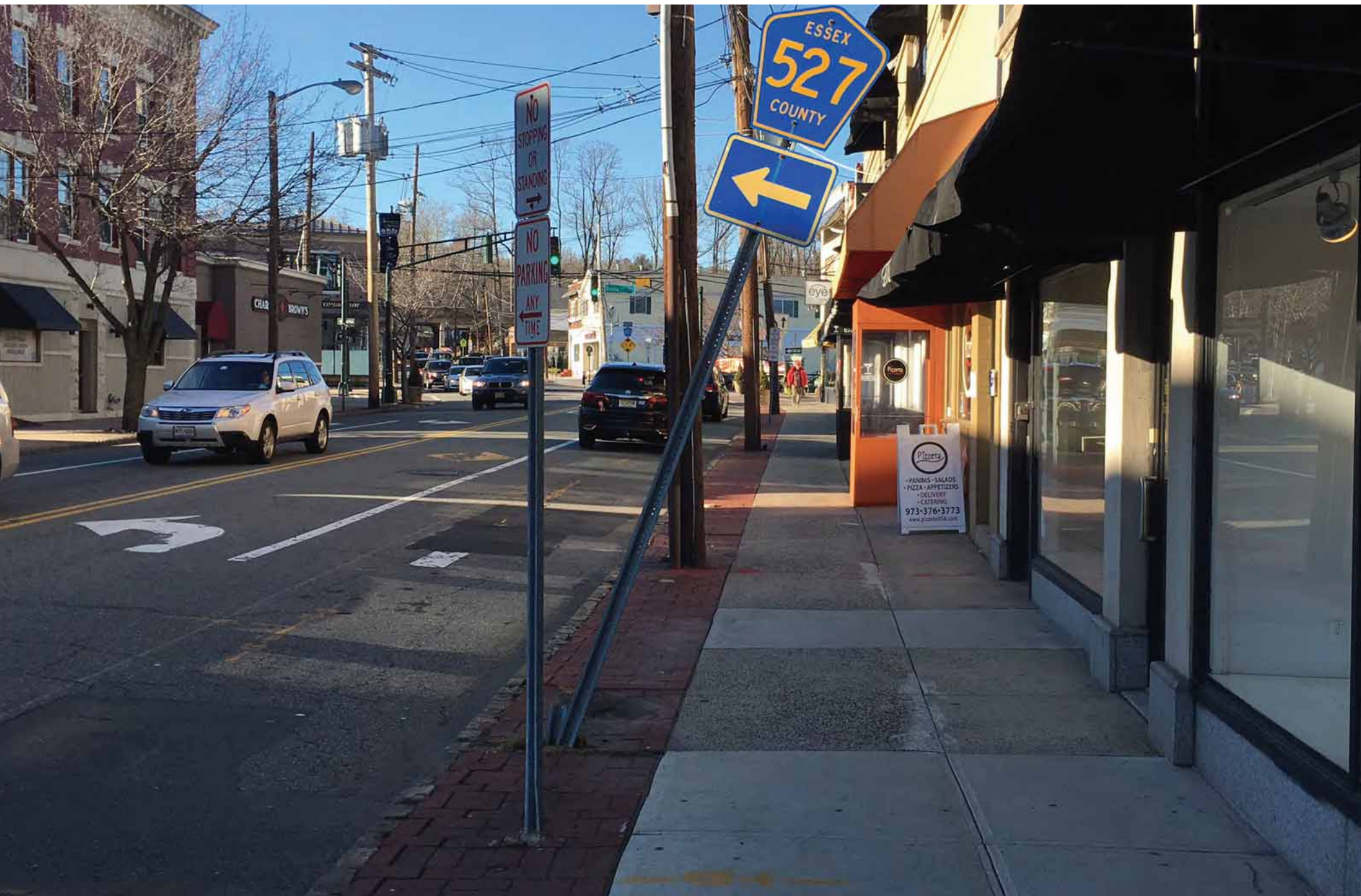












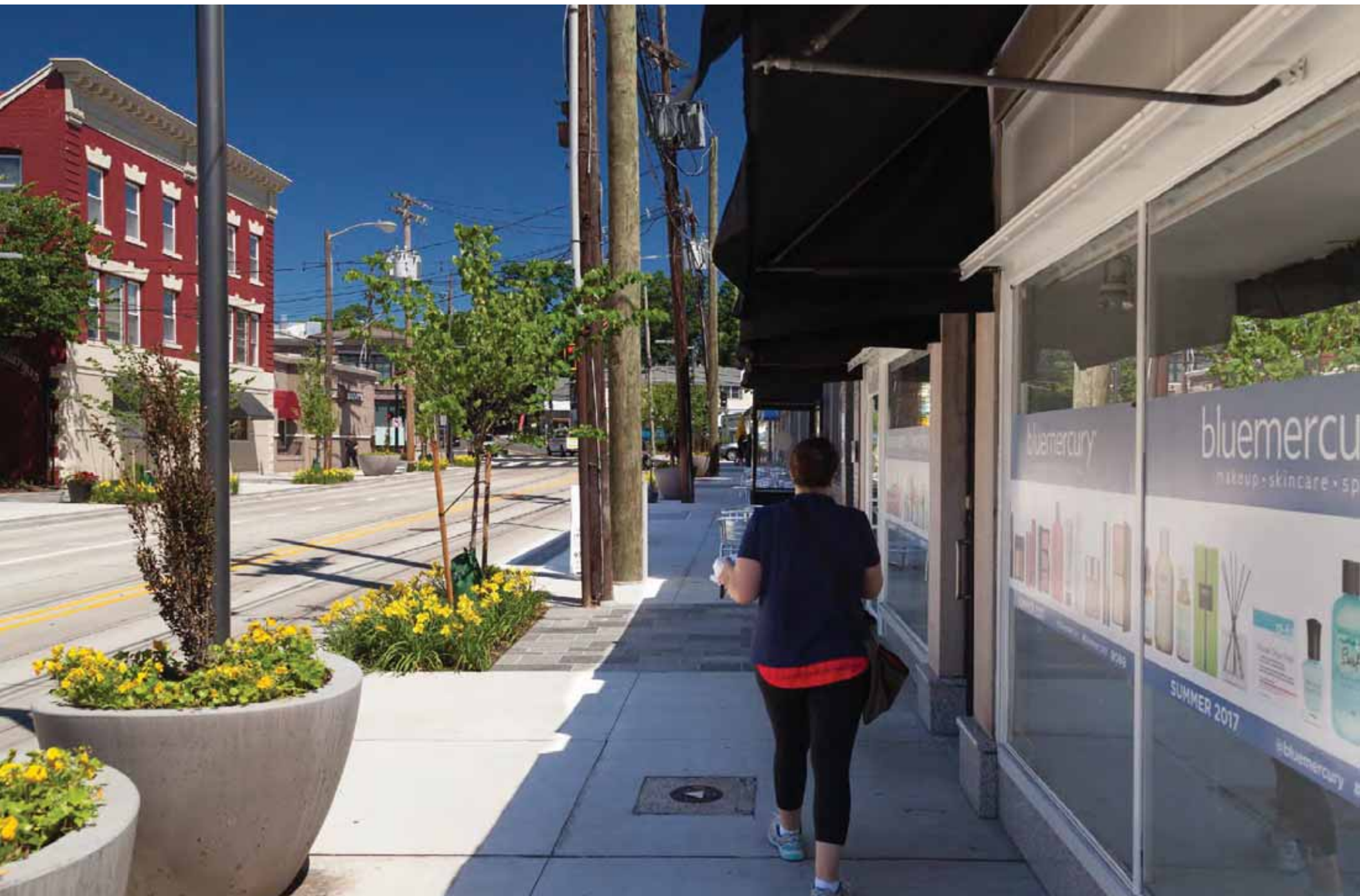
ESSEX
527
COUNTY



NO STOPPING
OR STANDING
↓

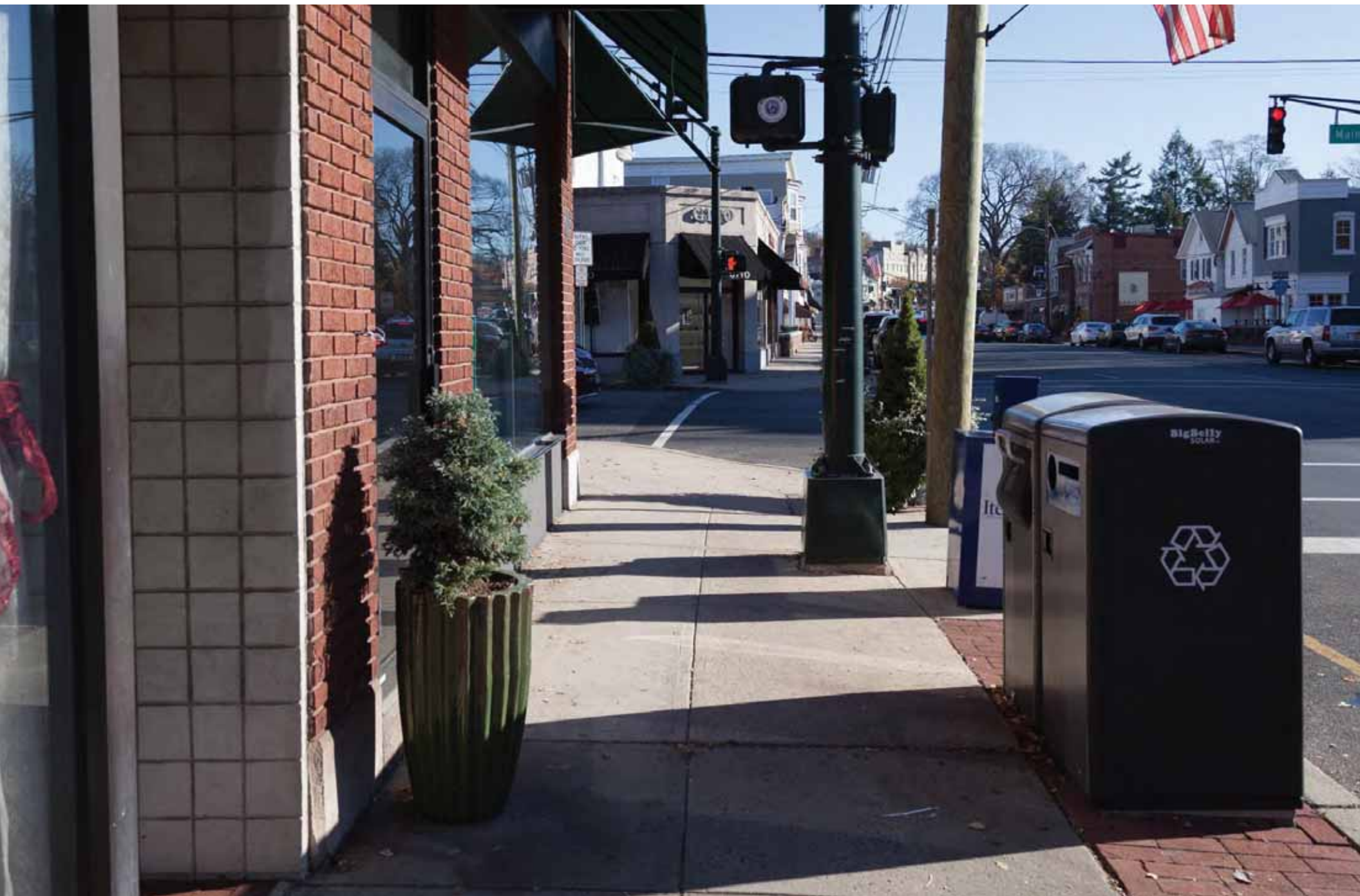
NO PARKING
ANY TIME
←

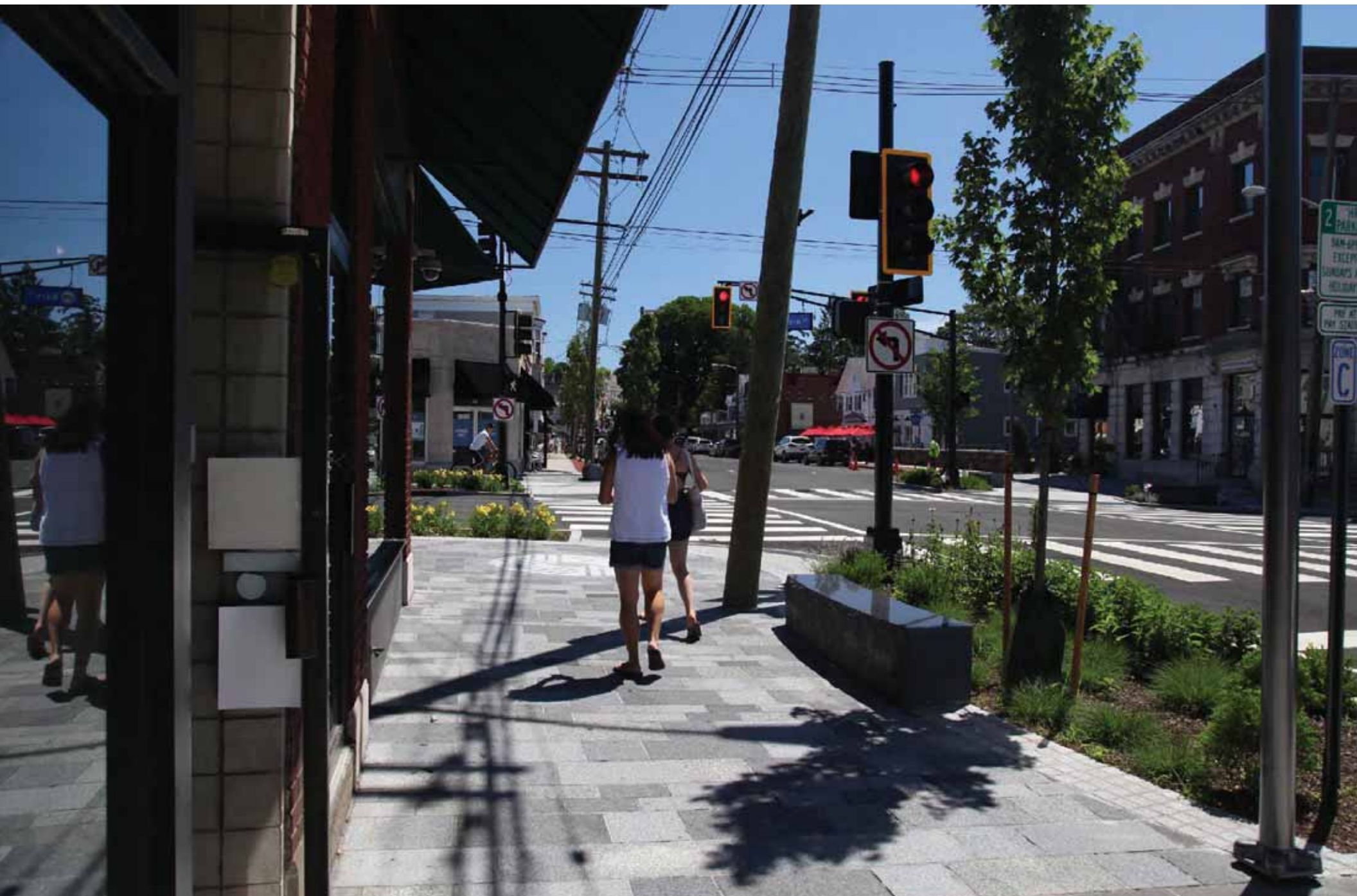
Pizzeria
• PANINIS • SALADS
• PIZZA • APPETIZERS
• DELIVERY
• CATERING
973-376-3773
www.pizzeriausa.com

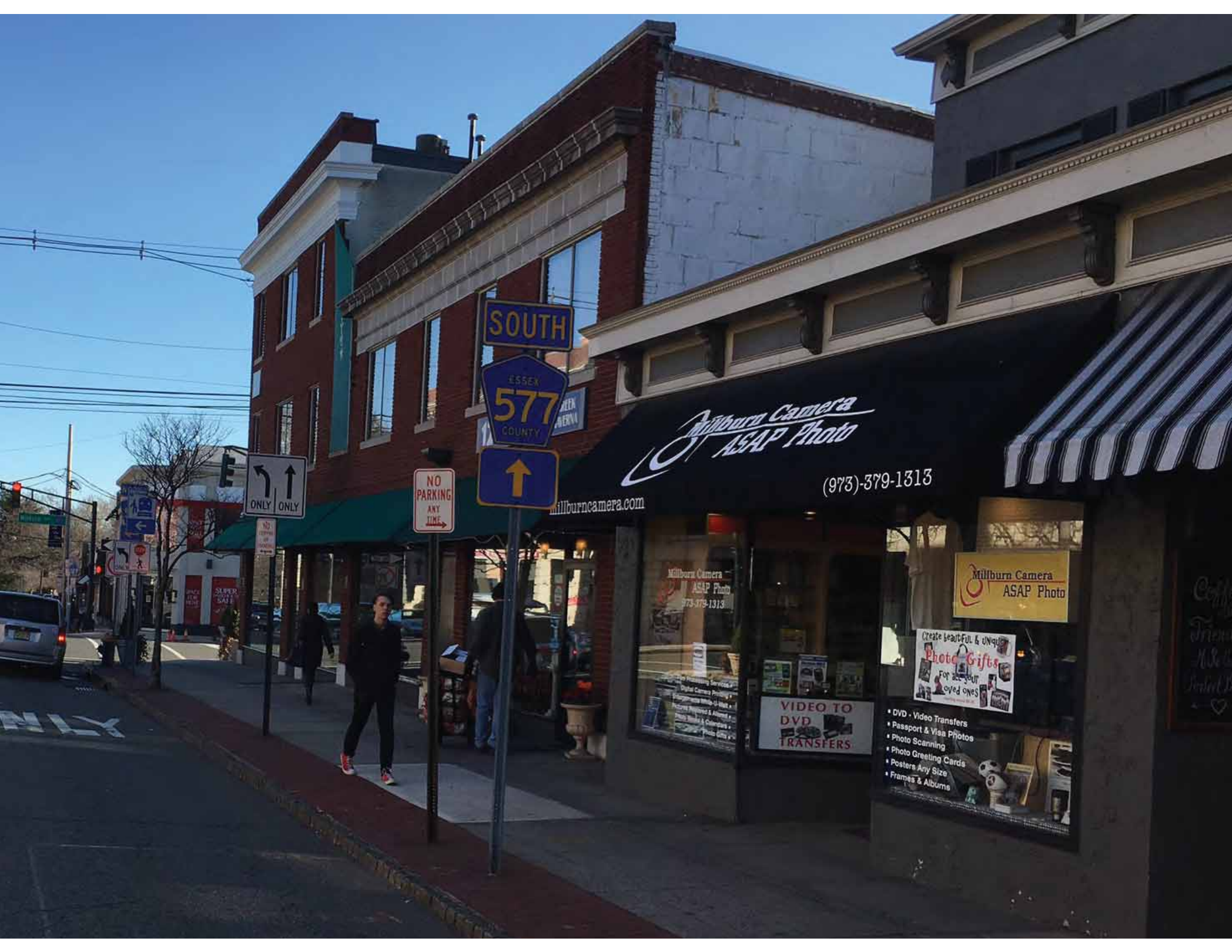












SOUTH

ESSEX
577
COUNTY



NO
PARKING
ANY
TIME

ONLY ONLY

Millburn Camera
ASAP Photo

(973)-379-1313

millburncamera.com

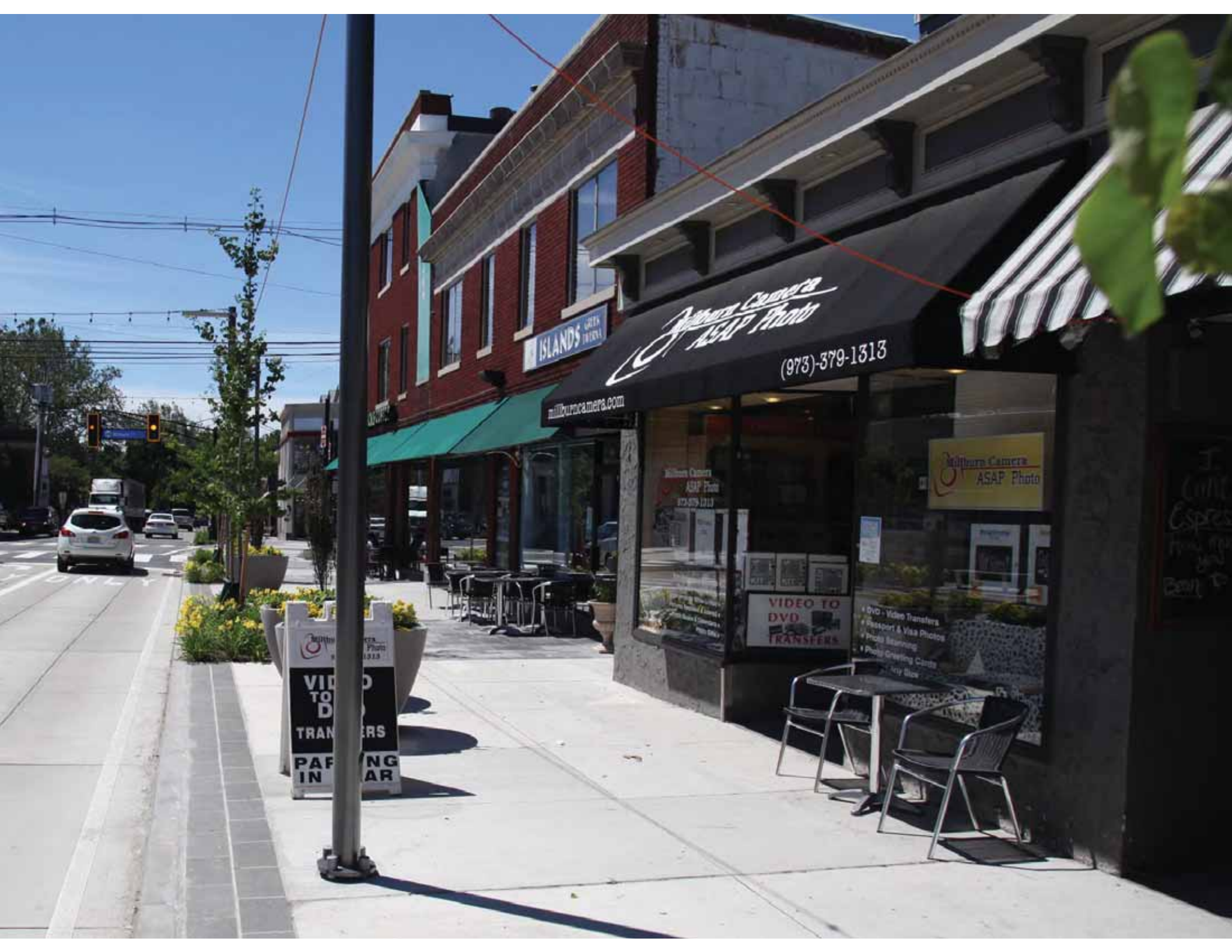
Millburn Camera
ASAP Photo
373-379-1313

Millburn Camera
ASAP Photo

Create beautiful & unique
Photo Gifts
for your loved ones

VIDEO TO
DVD
TRANSFERS

- DVD - Video Transfers
- Passport & Visa Photos
- Photo Scanning
- Photo Greeting Cards
- Posters Any Size
- Frames & Albums



ISLANDS

Millburn Camera
& Photo
(973)-379-1313
millburncamera.com

Millburn Camera
& Photo
(973)-379-1313

Millburn Camera
& Photo

VIDEO TO
DVD
TRANSFERS

- DVD - Video Transfers
- Passport & Visa Photos
- Photo Scanning
- Photo Greeting Cards
- Any Size

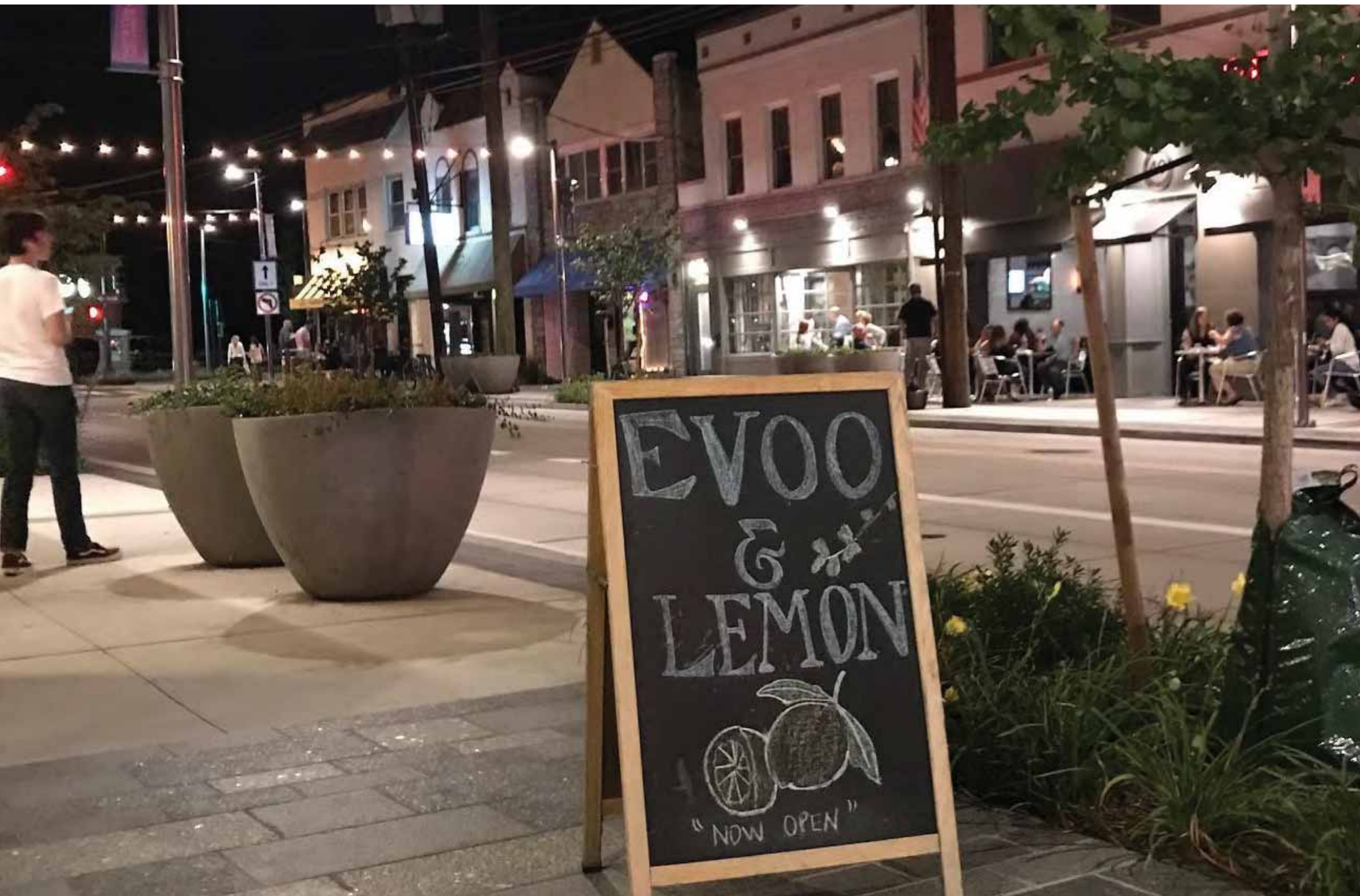
VIDEO TO
DVD
TRANSFERS
PASSPORT
PHOTOS



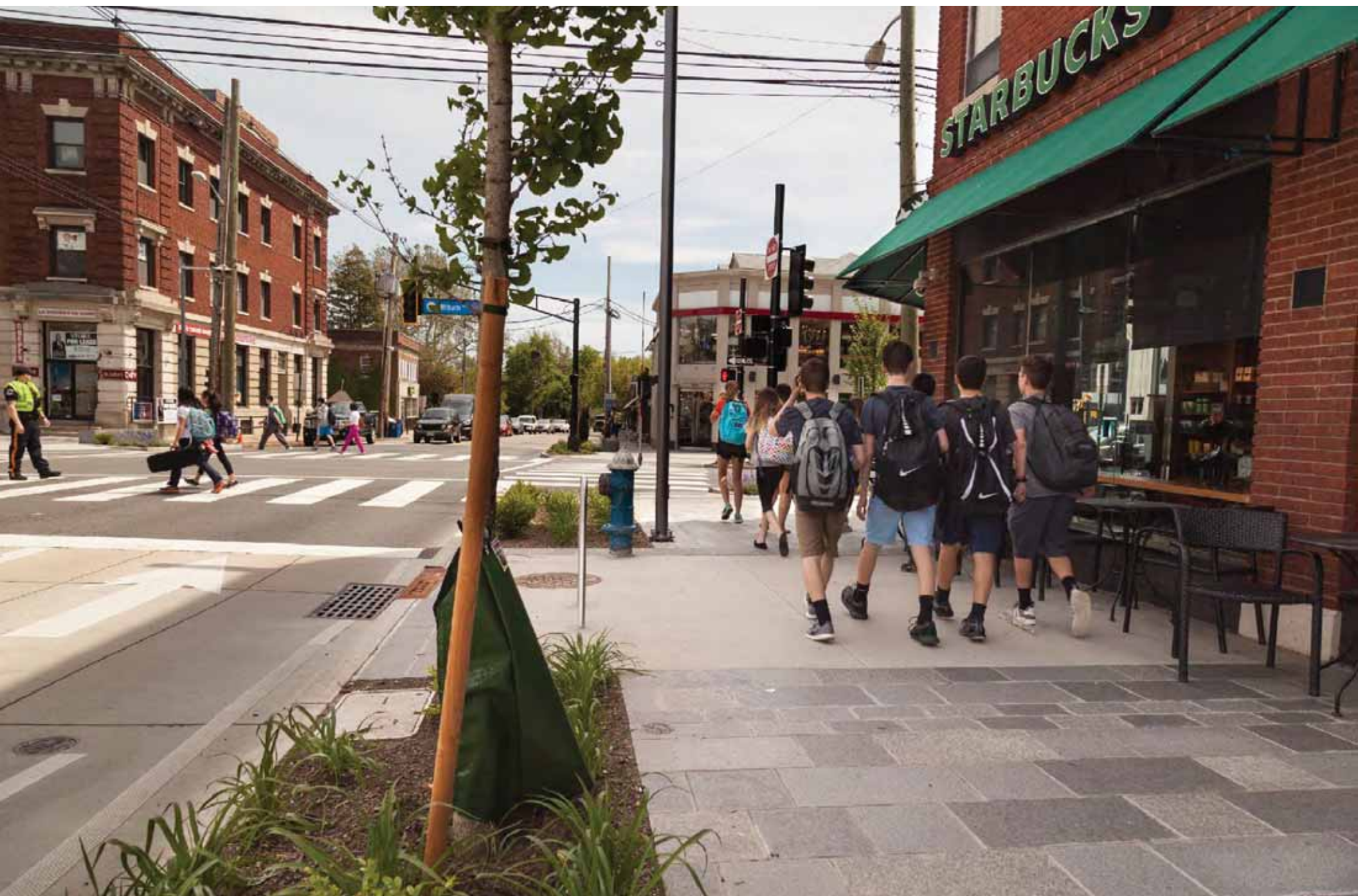








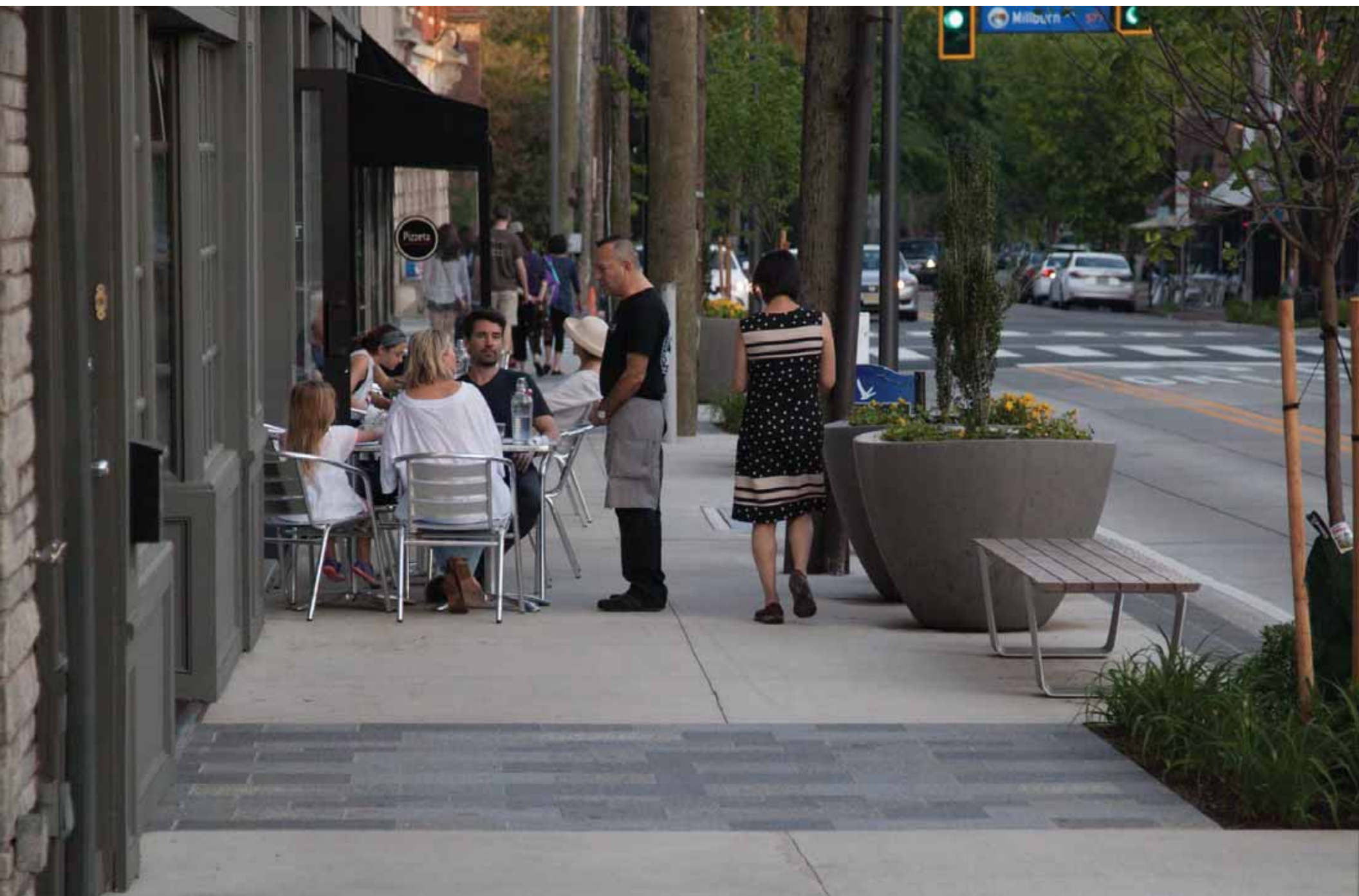












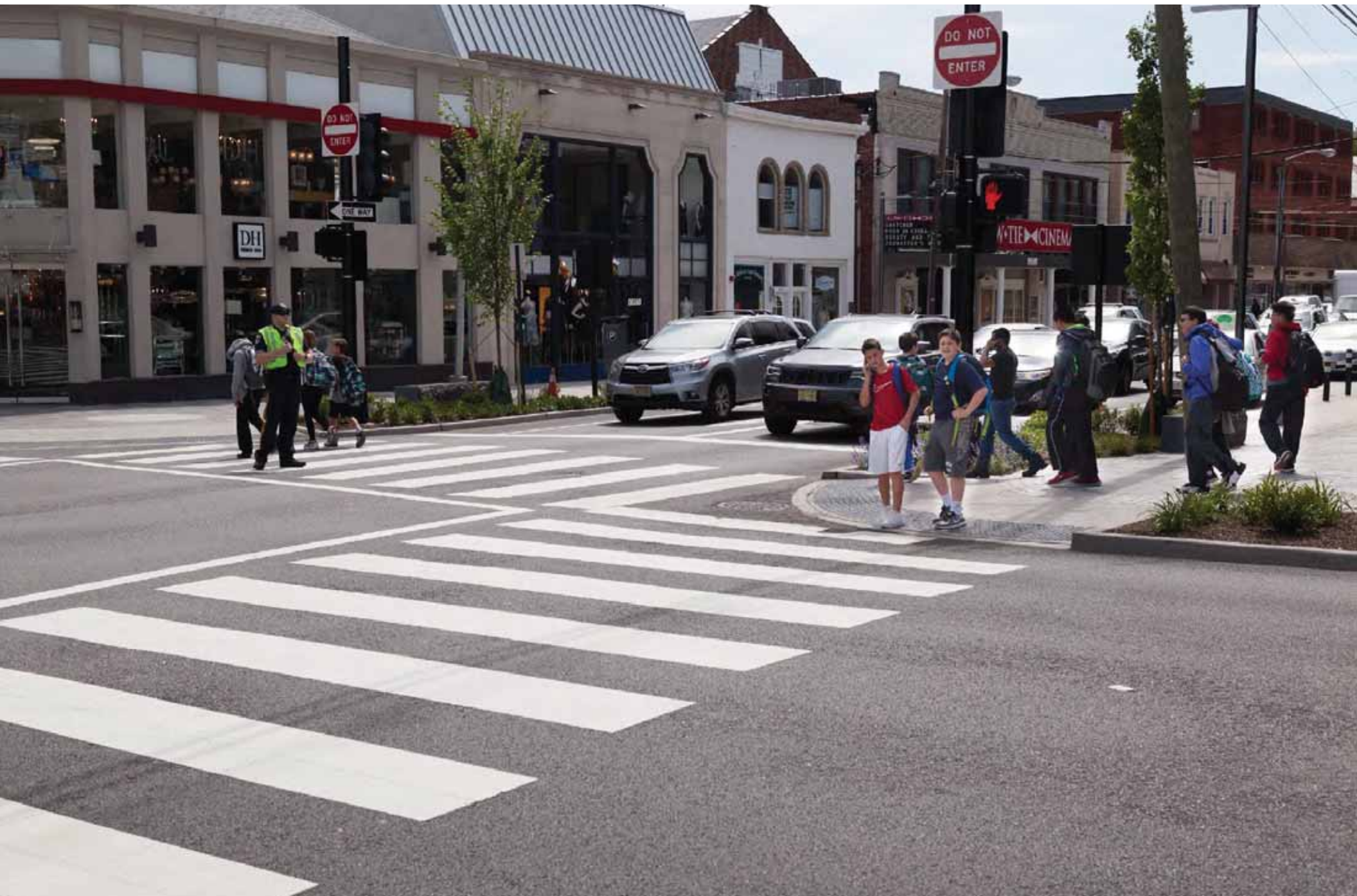










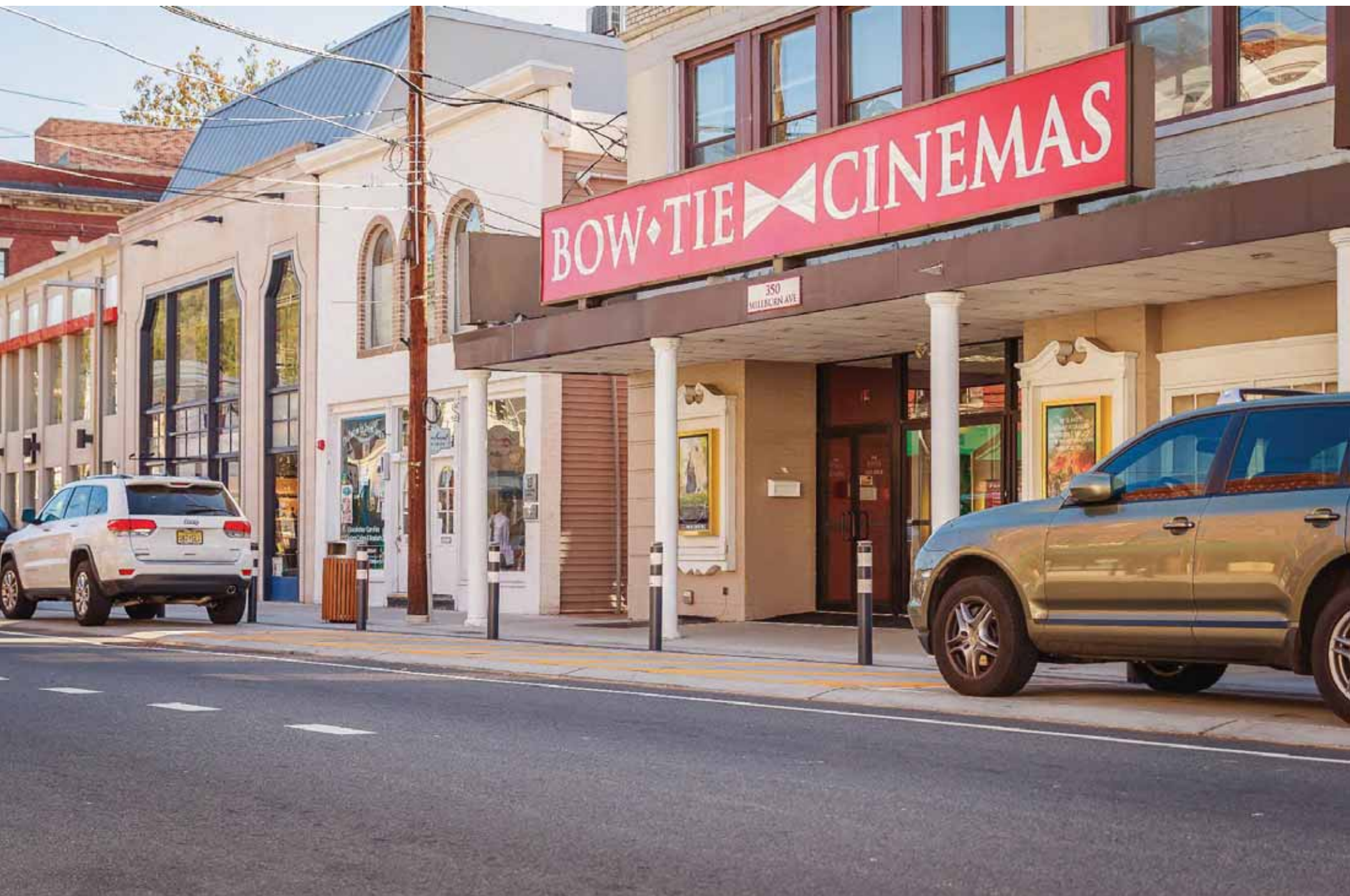






























Top Concerns Raised*:

Curb Bump-Outs

Emergency Vehicles

Flexible Parking

Traffic Congestion / Restriction

Cut-through Traffic

Pedestrian Safety

HIT BY A VEHICLE
TRAVELING AT:

**20
MPH**



9 out of 10 pedestrians survive

HIT BY A VEHICLE
TRAVELING AT:

**30
MPH**



5 out of 10 pedestrians survive

HIT BY A VEHICLE
TRAVELING AT:

**40
MPH**

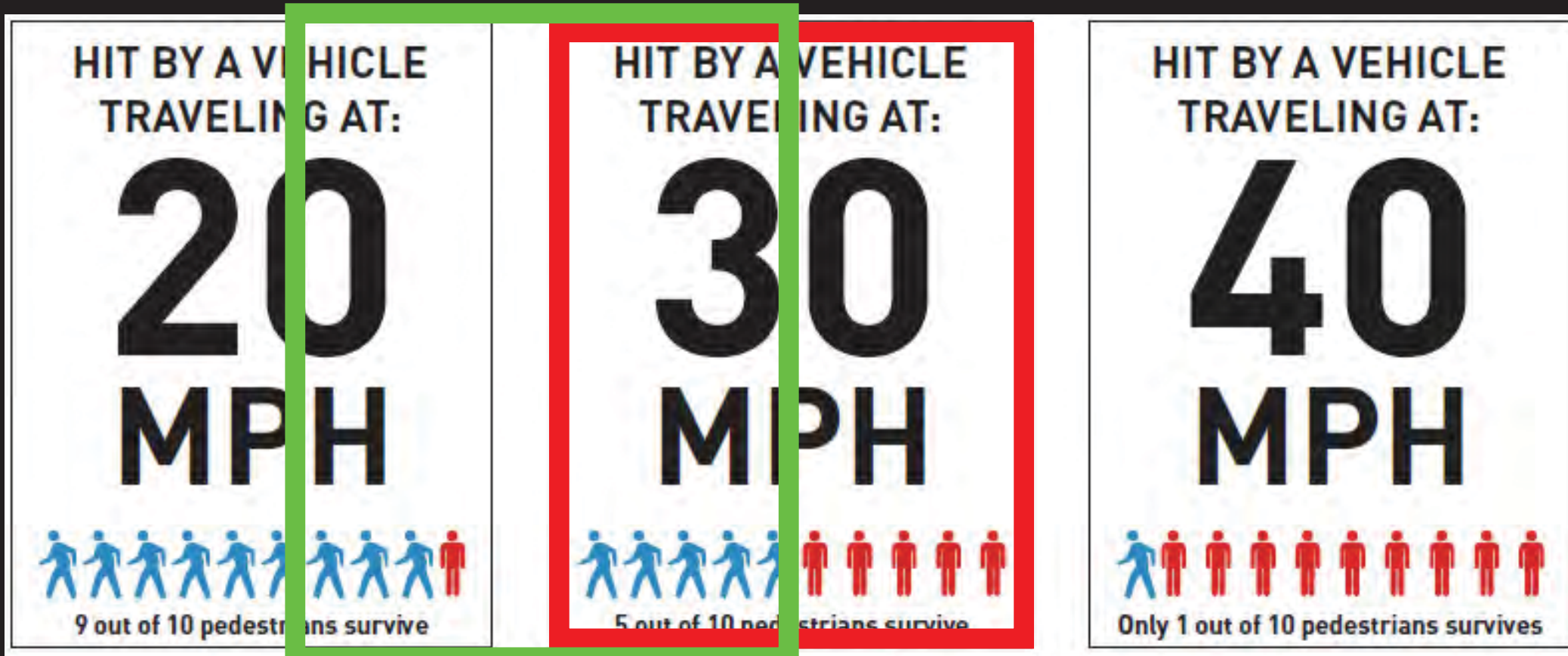


Only 1 out of 10 pedestrians survives

**POSTED
SPEED**

**AVERAGE
SPEED**

TRAFFIC CALMING RESULTS



POSTED
SPEED
25MPH

AVERAGE
SPEED
28MPH

Results*:

Parking Transaction increased by +/- 7% from prior years

New retail has opened including regional retailers Blue Mercury and Playa Bowls.

Average travel speeds in the downtown have been measured at 26mph and 28mph (85th percentile).

Pedestrian related crashes have decreased 58%

Vehicular related crashes have decreased 38%

****Statistics provided by Millburn Township***



David Lustberg, LLA, PP
CEO + Managing Principal
dave@ArterialStreets.com
www.ArterialStreets.com