

# COMPLETE STREETS

## THE SOUND SHORE COMMUNITY



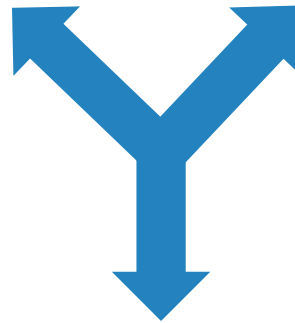
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Robert F. Wagner Graduate School of Public Service



# CAPSTONE OVERVIEW

**NYU Wagner**  
CAPSTONE TEAM



CITY OF RYE

VILLAGE OF  
MAMARONECK

TOWN OF  
MAMARONECK

VILLAGE OF  
LARCHMONT



# WHY COMPLETE STREETS

# 4,092

## U.S. Pedestrian Deaths in 2009

*Source: NHTSA*



Of the **27**  
pedestrians  
killed in  
Westchester  
County from  
2005-2007  
nearly

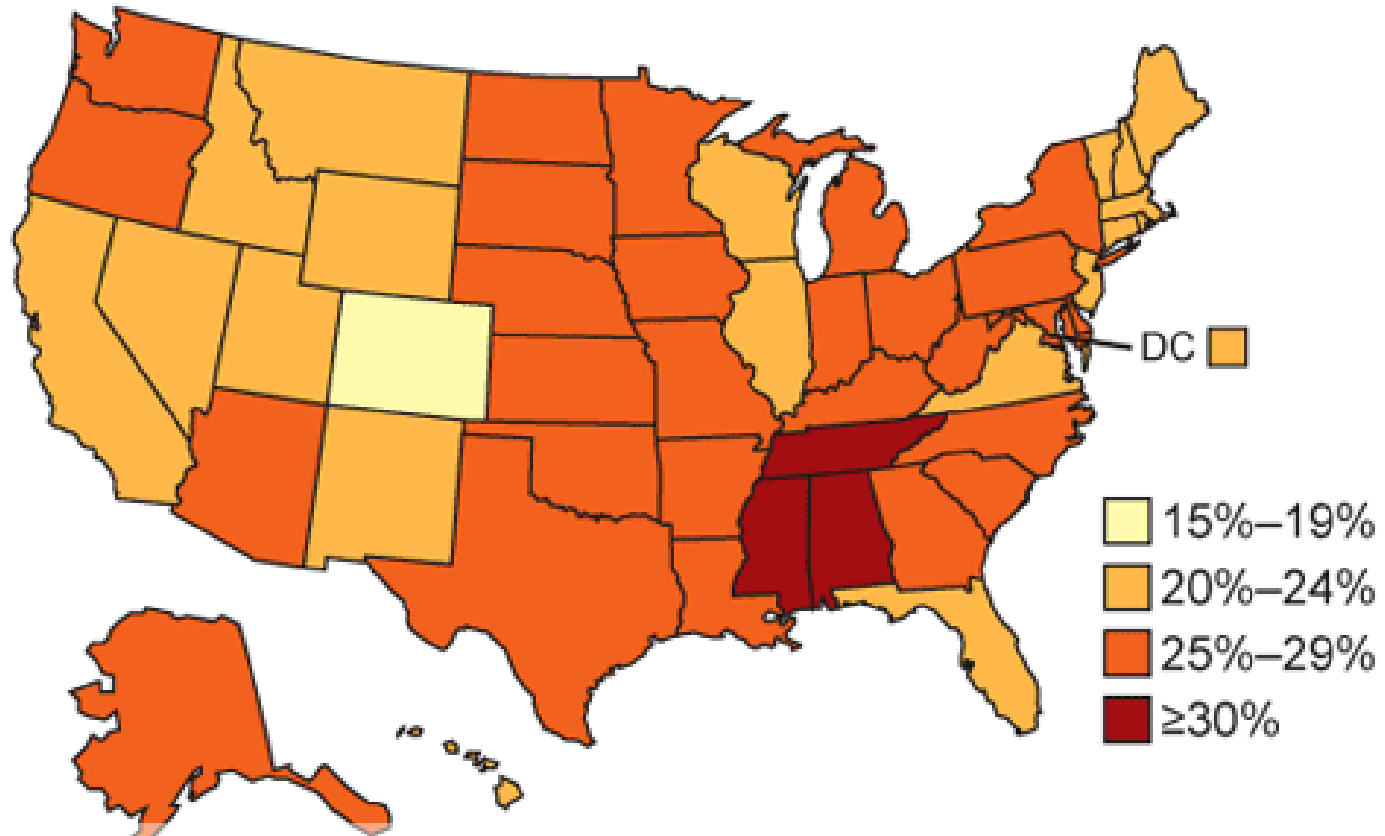
**30%**

were **65 or  
older.**

*Source: TSTC*



# The Prevalence of Obesity (BMI $\geq 30$ ) Among U.S. Adults, 2007



States with the **lowest levels of biking and walking** have, on average, the **highest rates of obesity, diabetes, & high blood pressure.**

*Source: 2010 Benchmarking Report, Alliance for Biking and Walking*



# COMPLETE STREETS OVERVIEW



## STREETS AS COMMUNITY ASSETS

To implement **design features and policy measures** that make streets **safe and accessible** for multiple users, **regardless of age, ability, or mode of transportation.**



# OBJECTIVES

**SAFETY**

**FITNESS AND RECREATION**

**ECONOMIC DEVELOPMENT**

**INTERMODAL CONNECTIVITY**

**ENVIRONMENTAL**



# COMPLETE STREETS HISTORY

**2003**

Complete Streets  
term coined

**2005**

Complete Streets  
Coalition formed

**2011**

Over 200 Complete  
Streets policies



Source: The Complete Streets Coalition (TCSC)



# COMPLETE STREETS POLICY

## Pennsylvania

2007

Pennsylvania DOT  
Design Manual

## Connecticut

2009

State Bill 735, *An Act  
Improving Bicycle and  
Pedestrian Access*

## New Jersey

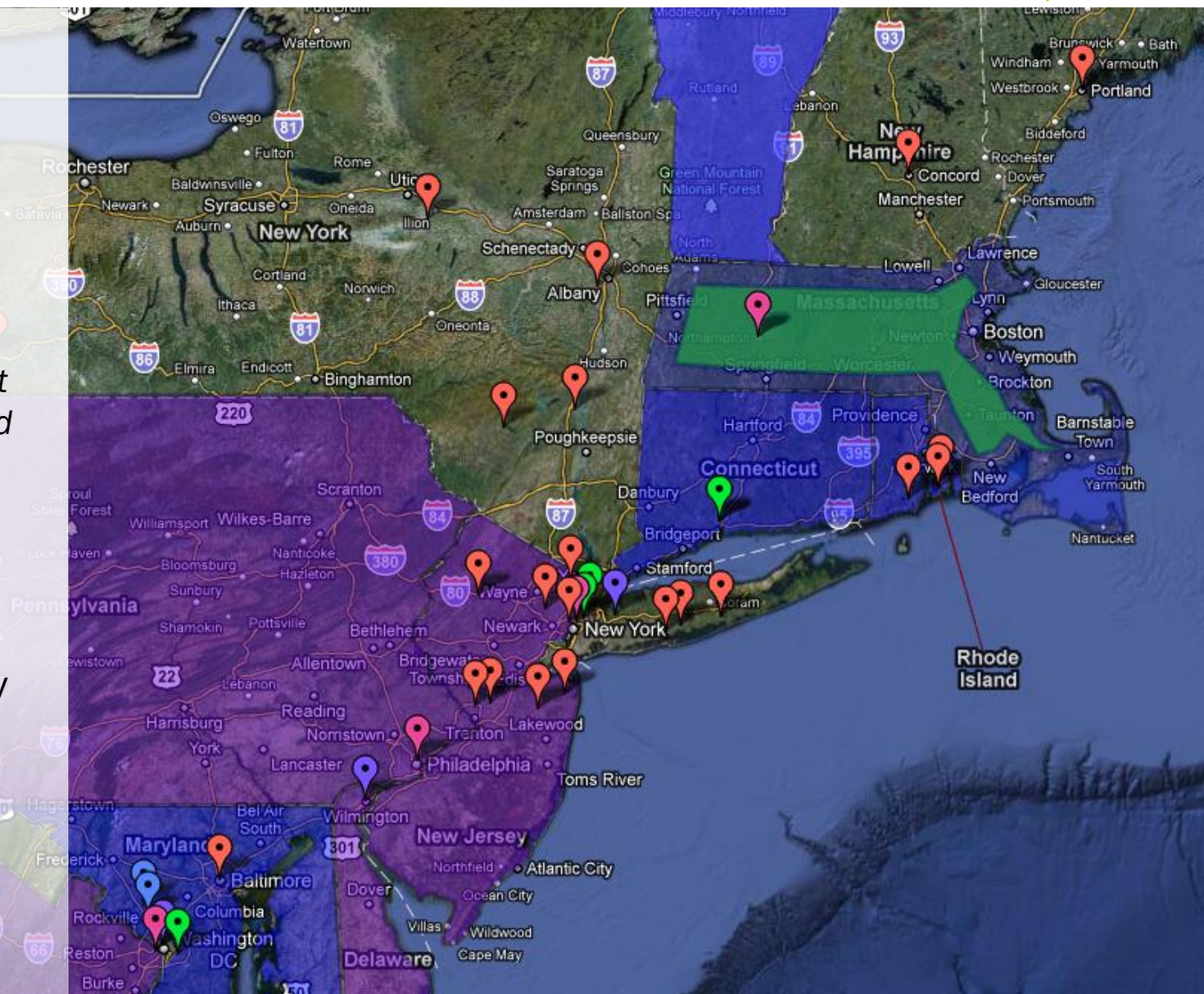
2009

Department of  
Transportation Policy  
No. 703

## New York

2011

**BILL PENDING**



# DESIGN INTERVENTIONS

**PEDESTRIANS**

**BICYCLES**

**VEHICLES**

**ENVIRONMENT**

# PEDESTRIAN INTERVENTIONS

**CURB EXTENSION**



**REFUGE ISLAND**



**CROSSWALK**





# BICYCLE INTERVENTIONS

SHOULDER



SHARROW



BIKE LANE





# BICYCLE INTERVENTIONS



## EASTCHESTER, NY

### California Road Sharrows

2010

In Austin, TX, **74%** of drivers yielded to cyclists after installation when previously it was 38%.

- KVUE ABC News

# VEHICLE INTERVENTIONS

SIGNAGE



SPEED HUMPS



BACK-IN ANGLE





## CITY OF RYE, NY

Boston Post Road

Road-Diet

2008

Reduced travel lanes:

- calm traffic
- widen shoulder
- improve pedestrian crossing



# ENVIRONMENTAL INTERVENTIONS

PERMEABLE PAVEMENT



STREET TREES



BIOSWALES



## IN ONE YEAR, ONE TREE...

- Removes 26 pounds of CO<sub>2</sub> from the atmosphere, equal to 11,000 miles of car emissions
- Intercepts 1,525 gallons of storm water runoff

# COMPLETE STREETS EXAMPLE

## INCOMPLETE

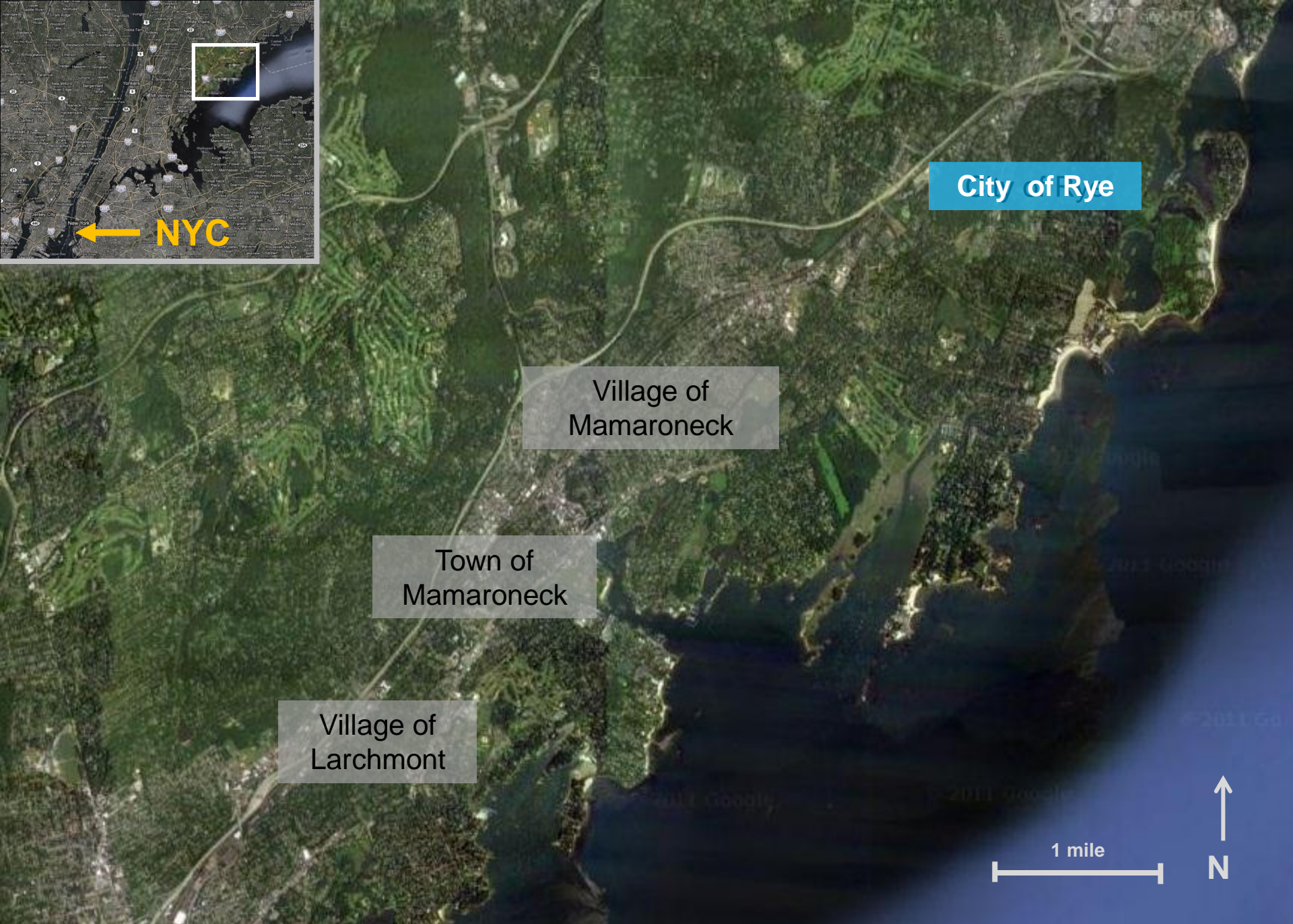


## COMPLETE

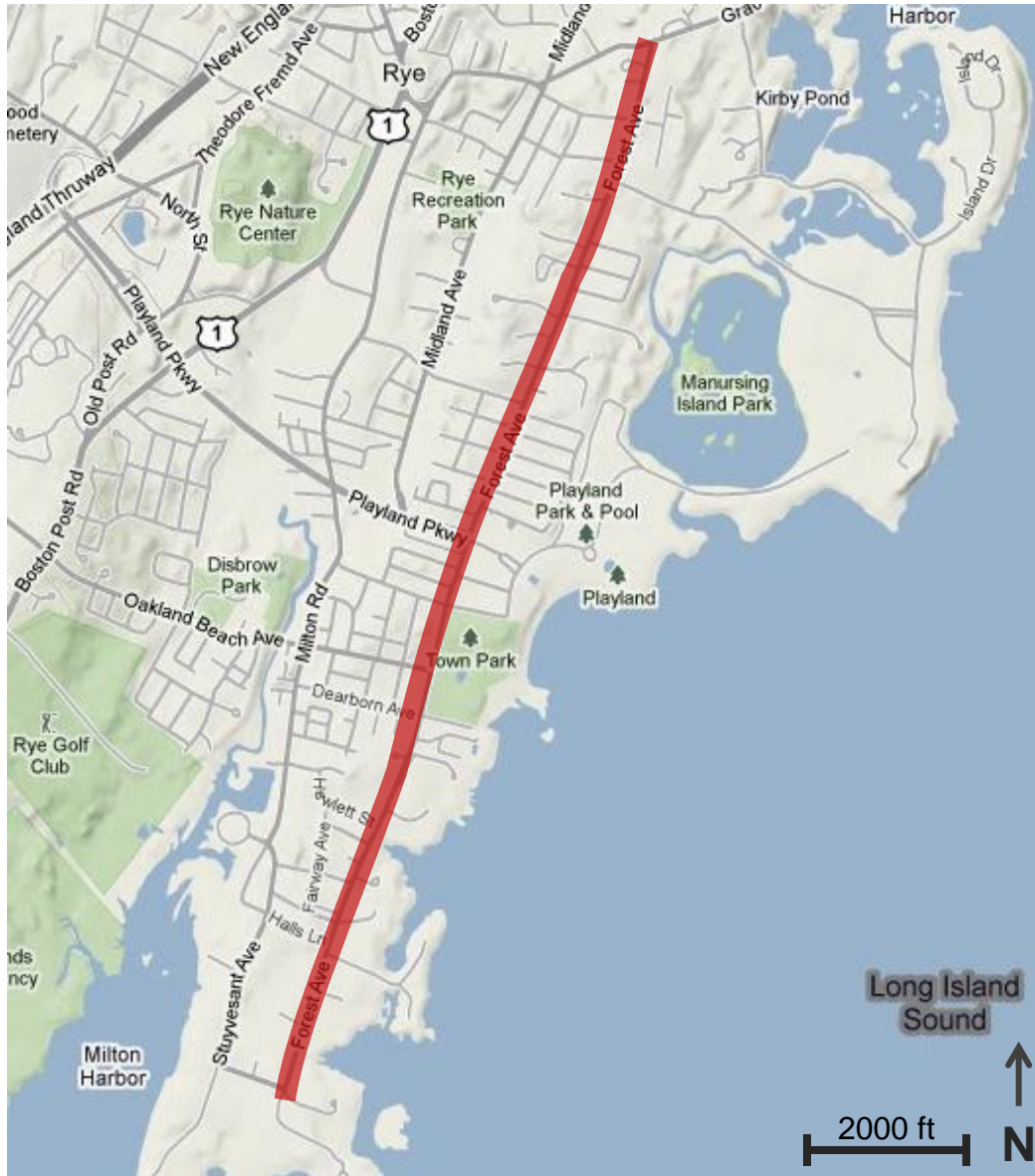


*Source: Seattle Department of Transportation, N 130<sup>th</sup> Street*









## FOREST AVENUE

between Grace Church St & Van Wagenen Ave

### FEATURES:

**PLAYLAND PARK**

**TOWN PARK**

**MIDLAND SCHOOL**

**MILTON SCHOOL**

### OBJECTIVES:

**RECREATION & FITNESS**

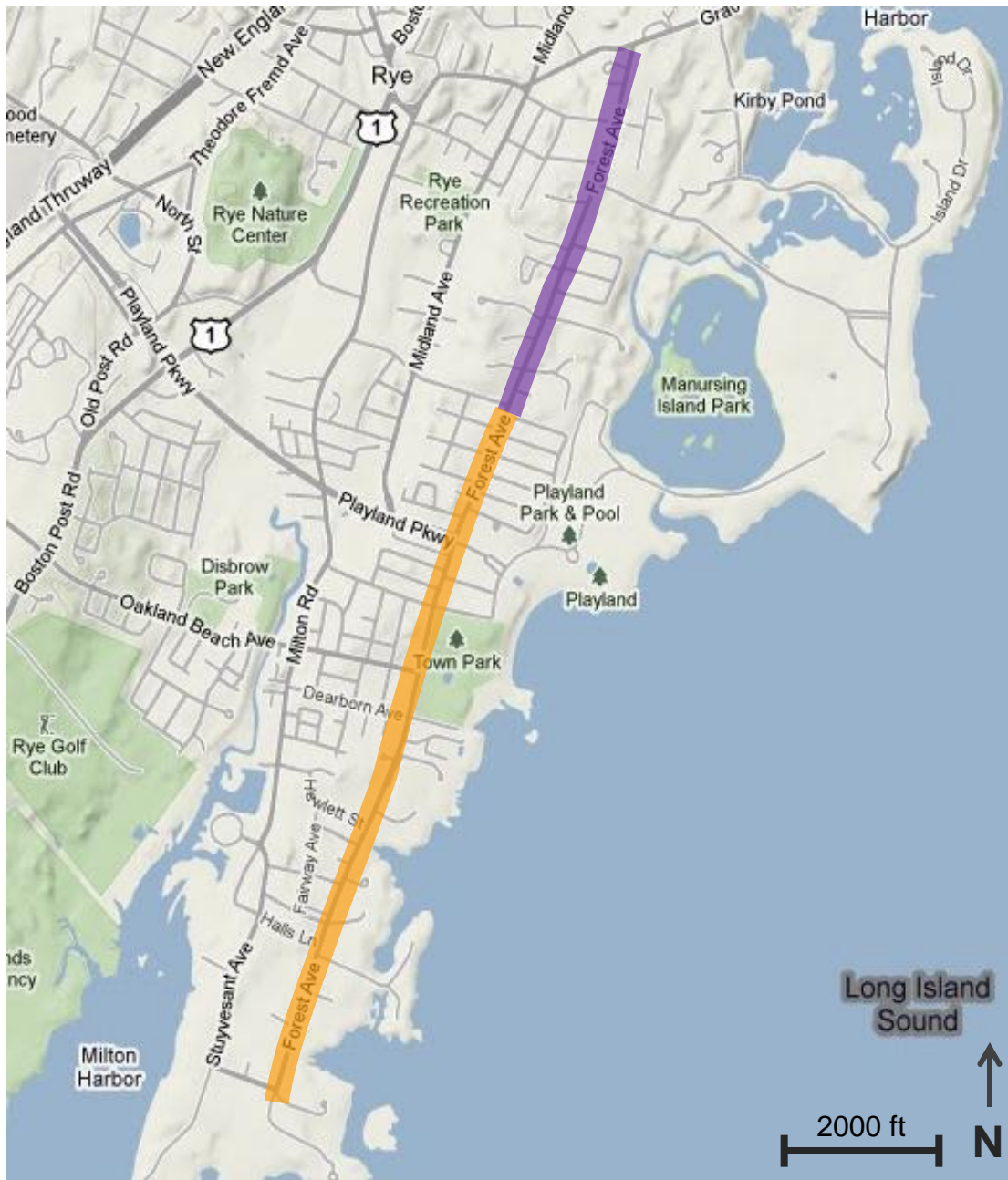
**SAFETY**



# UNDEFINED PEDESTRIAN AND BICYCLE SPACE







## Where: NO SIDEWALKS



## Where: SIDEWALKS







# NO SHOULDER ON PUBLIC RIGHT-OF-WAY





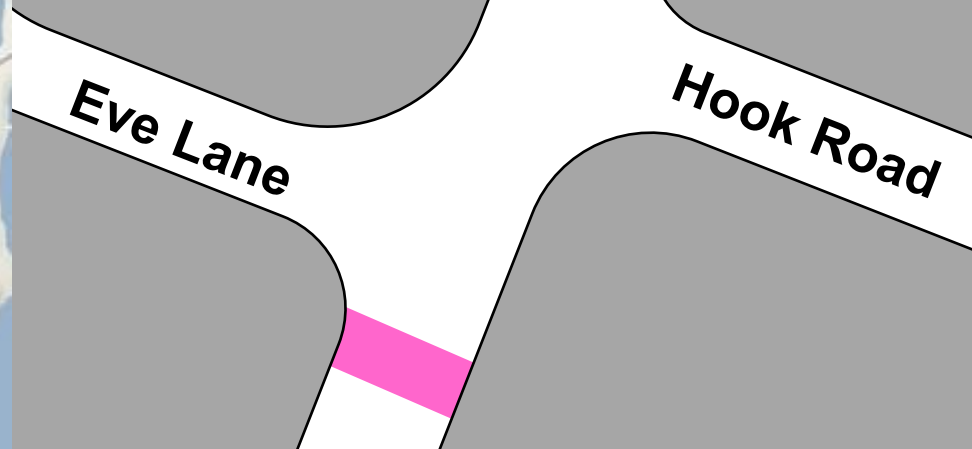
**REMOVE ROCKS AND PAVE SHOULDER  
WHERE FEASIBLE**



# INEFFECTIVE CROSSINGS NEAR SCHOOLS

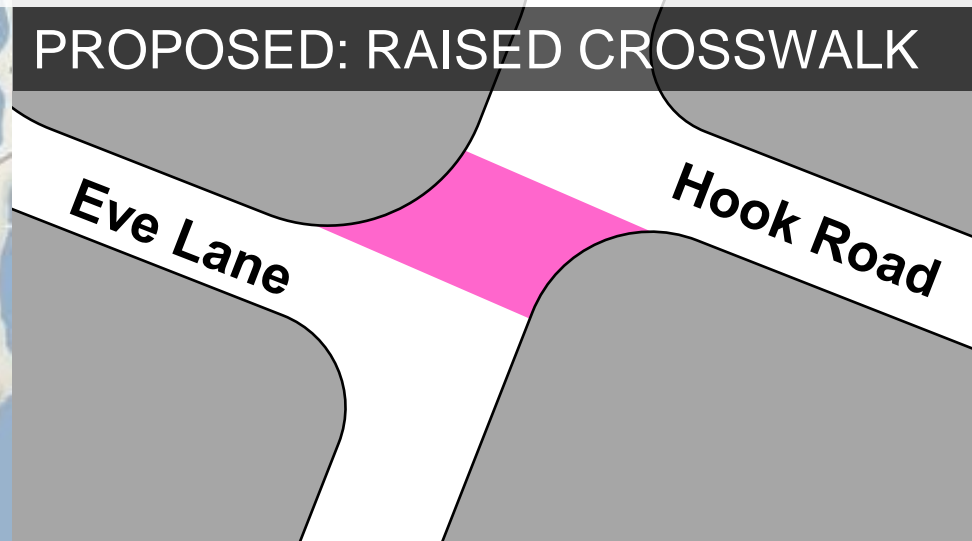


EXISTING: EVE LANE CROSSWALK

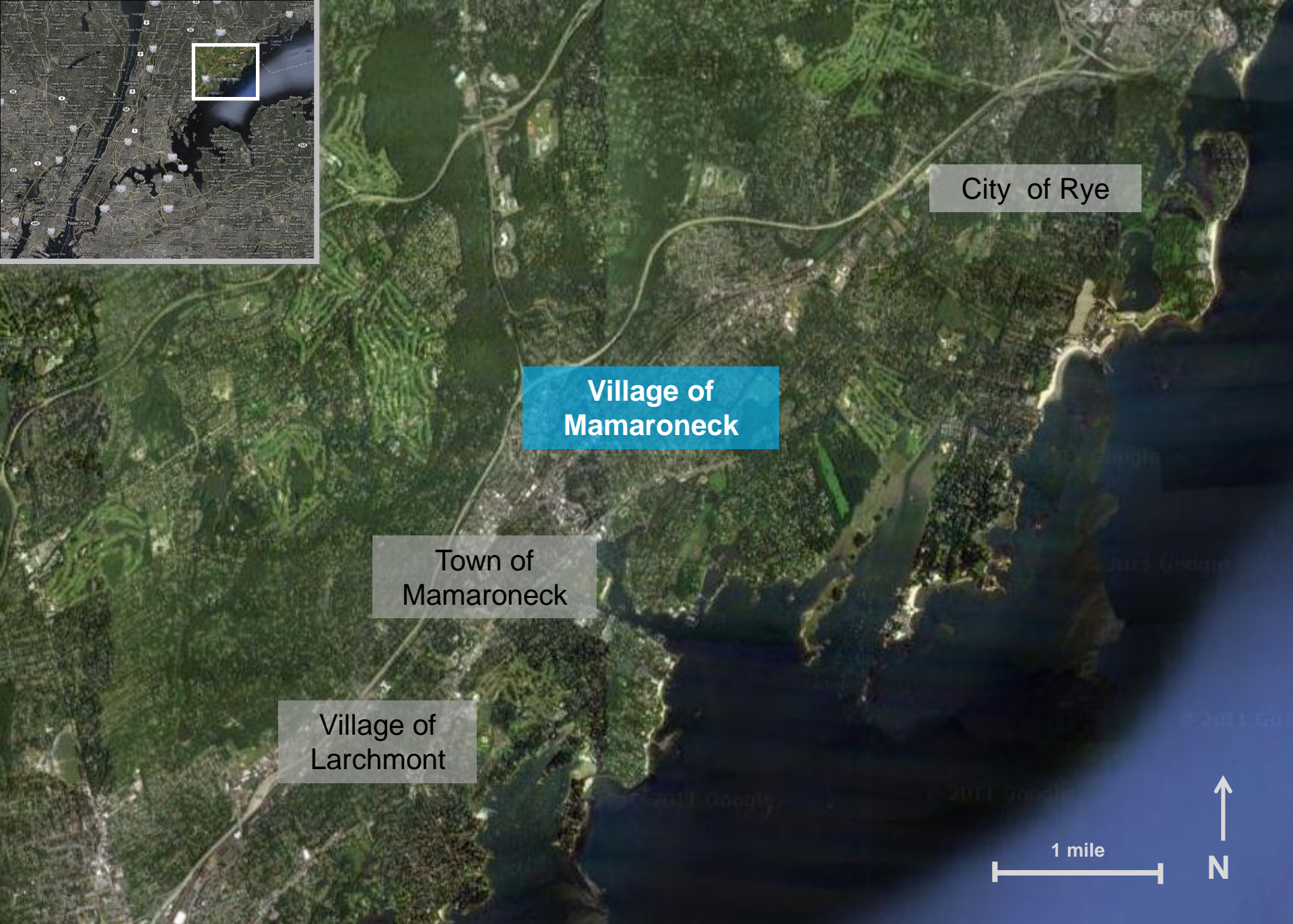
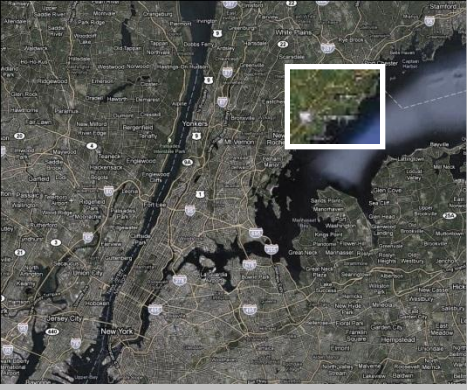


# INEFFECTIVE CROSSINGS NEAR SCHOOLS

PROPOSED: RAISED CROSSWALK







City of Rye

Village of  
Mamaroneck

Town of  
Mamaroneck

Village of  
Larchmont

1 mile





# VILLAGE OF MAMARONECK



## HALSTEAD AVE MAMARONECK AVE PALMER AVE

between Hunter St & Richbell Road

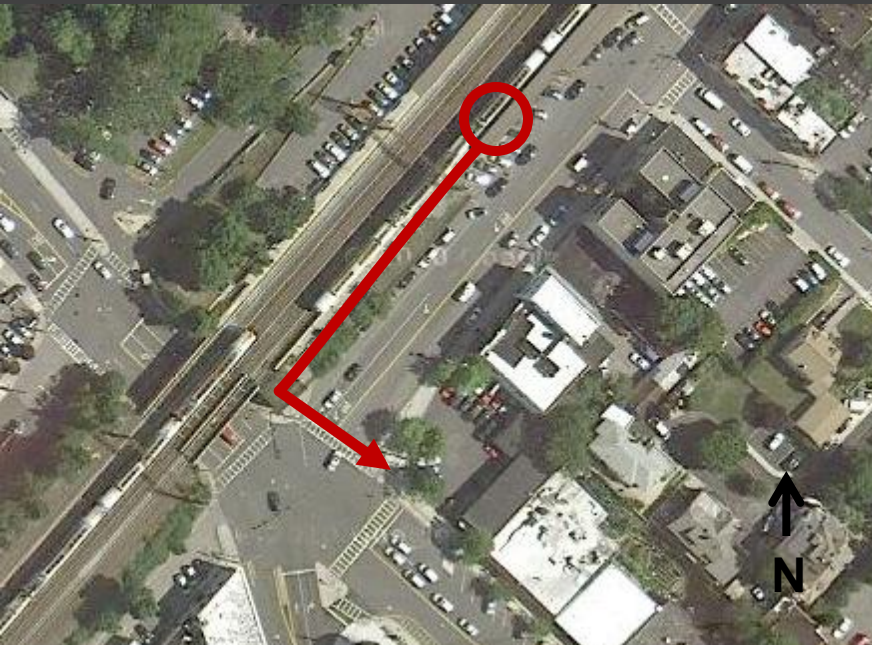
FEATURES:  
**DOWNTOWN MAMARONECK**  
**METRO NORTH STATION**  
**COLUMBUS PARK**  
**HARBOR ISLAND PARK**

OBJECTIVES:  
**ECONOMIC DEVELOPMENT**  
**RECREATION & FITNESS**  
**INTERMODAL**



# METRO NORTH STATION EXIT

How do I get across  
the street?



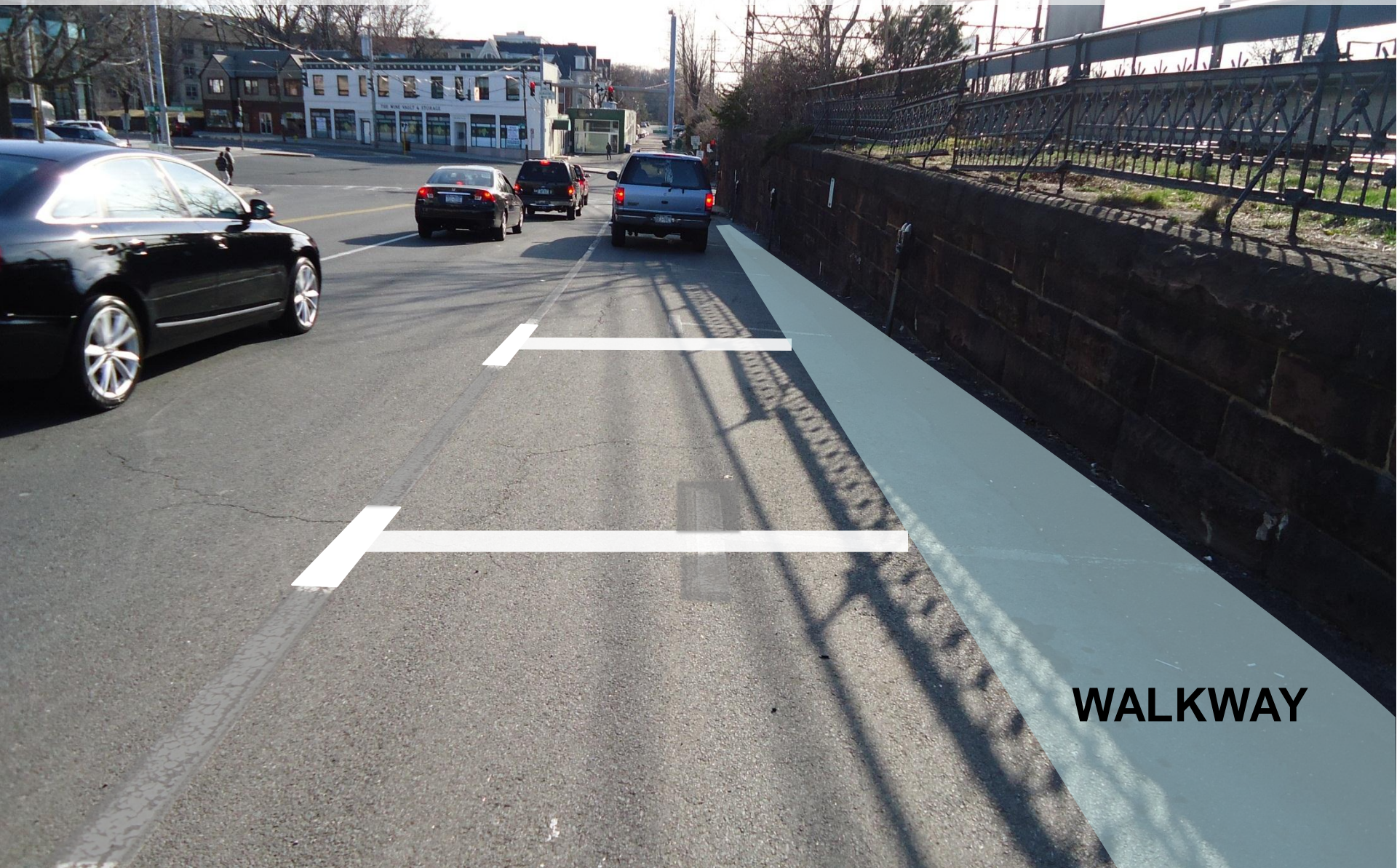


# PEDESTRIAN WALKWAY





# PEDESTRIAN WALKWAY



**WALKWAY**





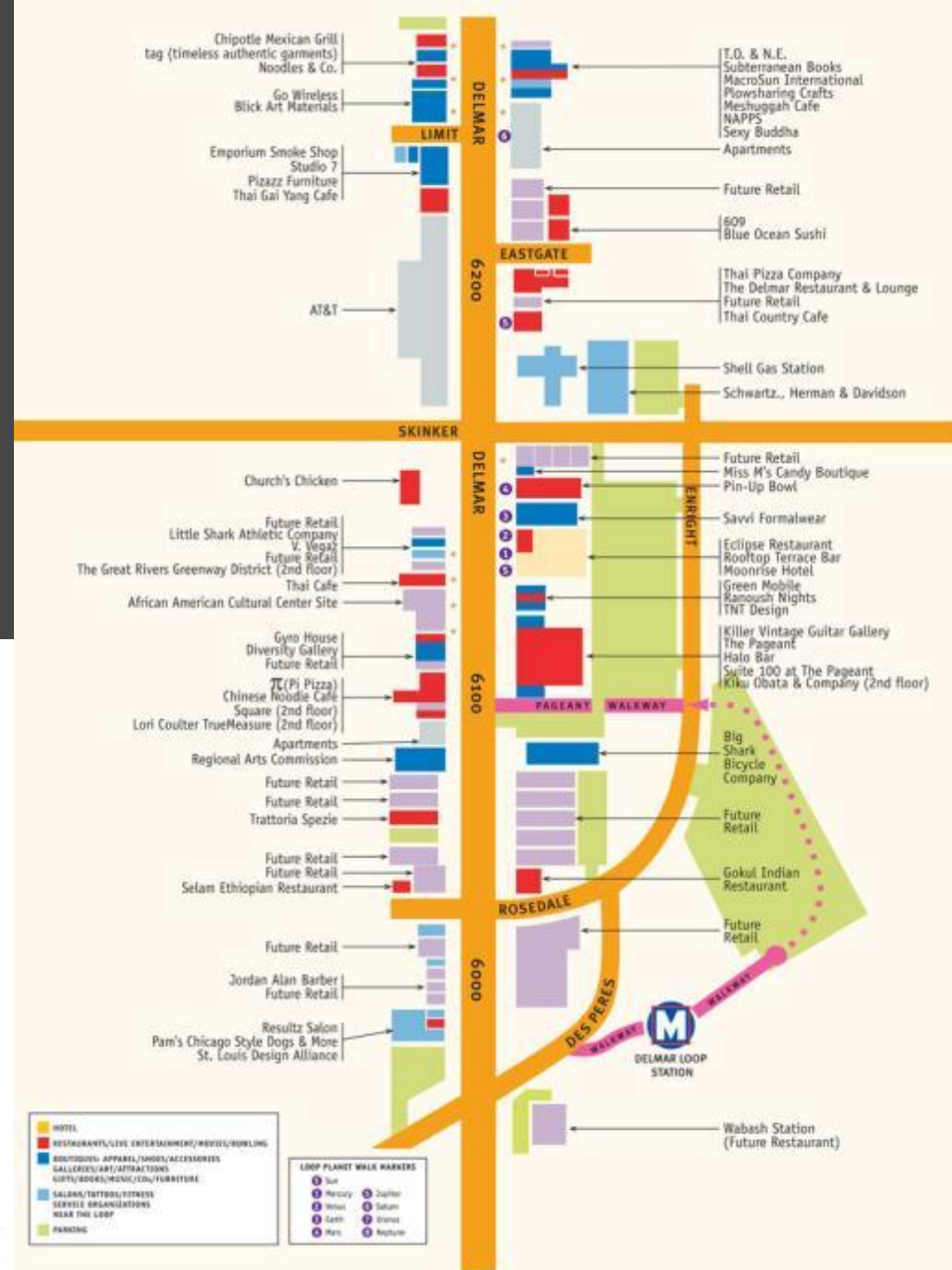
# CENTRAL SHOPPING DISTRICT

Where is it?



# WAYFINDING

Good for shoppers and businesses





# MAMARONECK AVENUE

## Parking in Downtown





# BACK-IN ANGLE PARKING



# 25%

## REDUCTION IN ACCIDENTS

- Pennsylvania DOT

- Improved safety
- Increased visibility
- Fewer collisions
- Easier loading & unloading



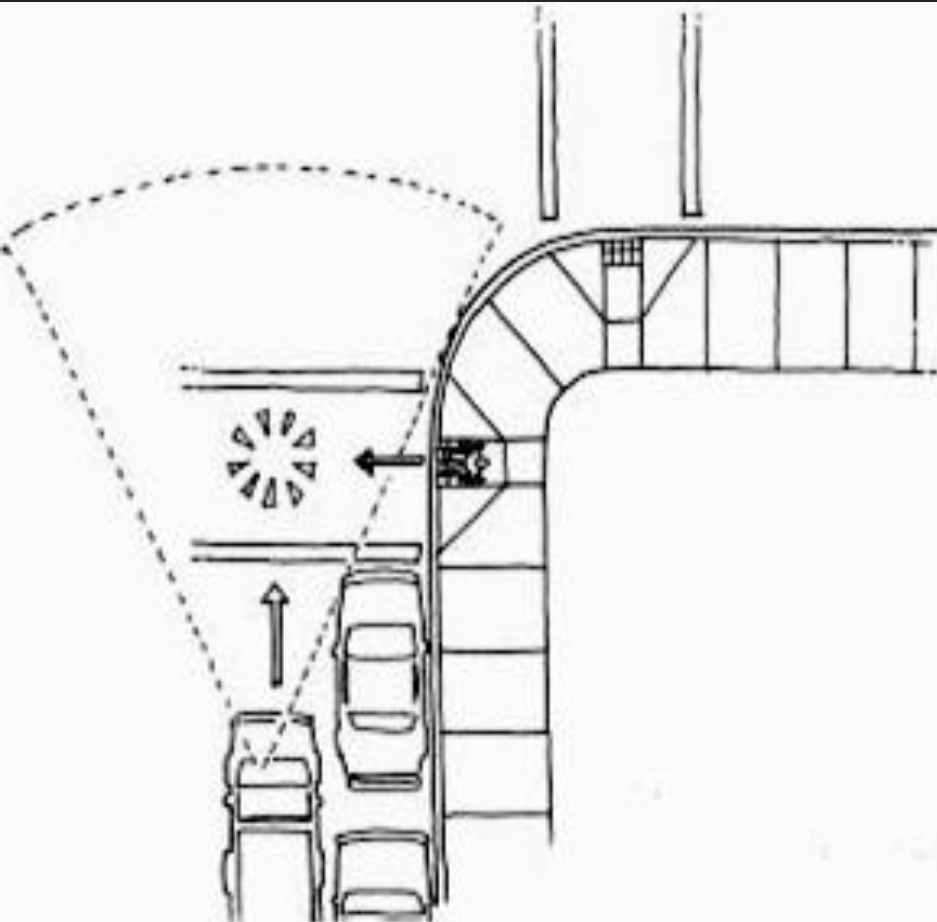


# NORTH BARRY & HALSTEAD

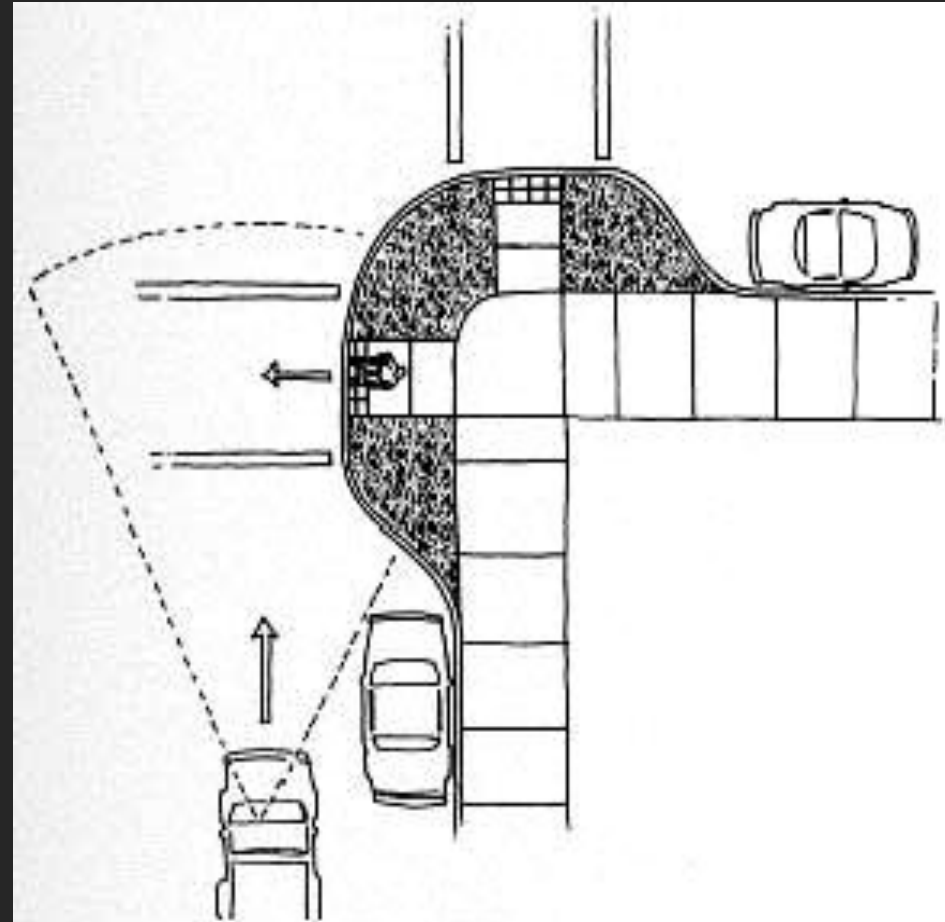
## Thinking Beyond Crosswalks



# CURB EXTENSIONS



**LESS SAFE**



**MORE SAFE**



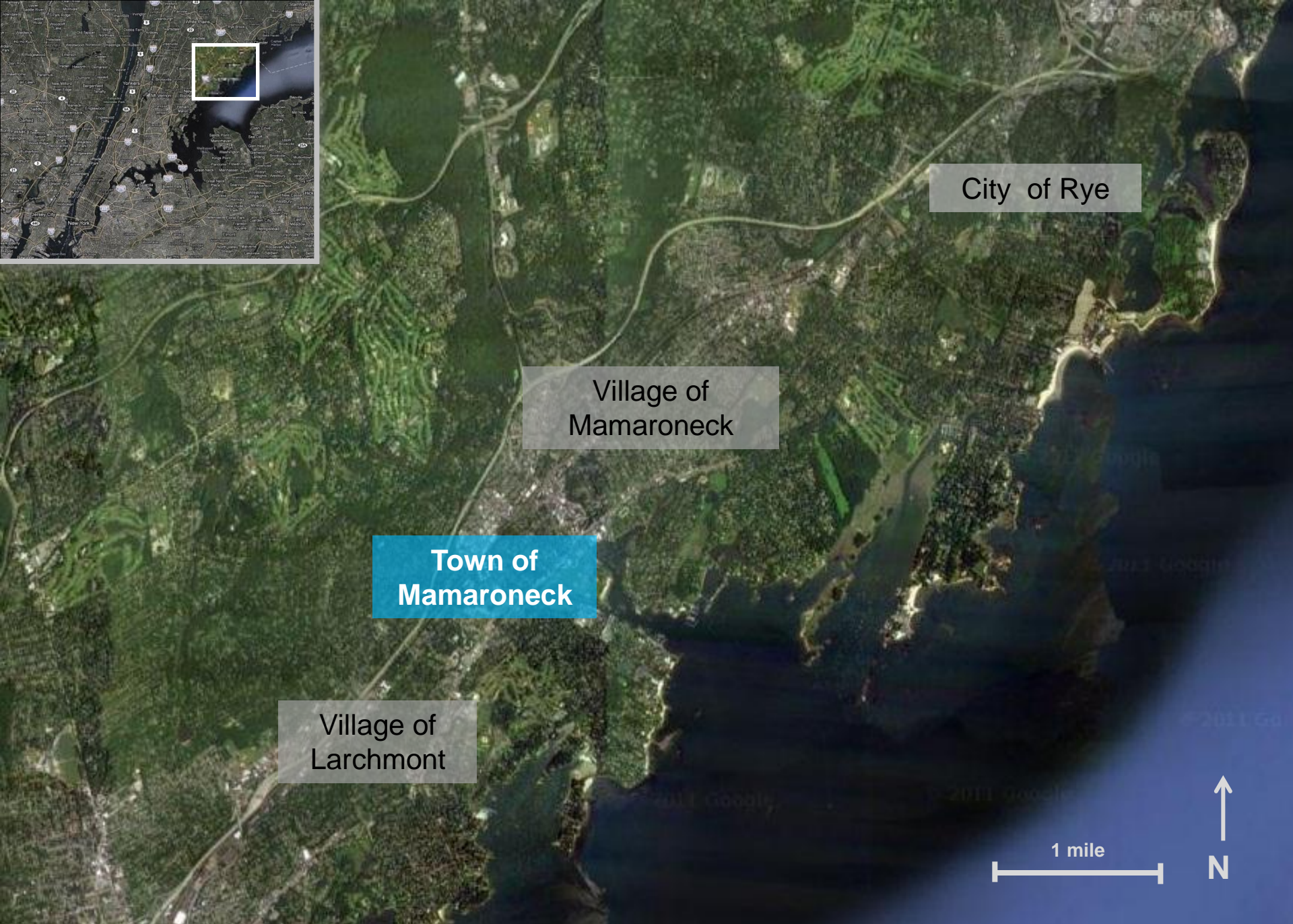
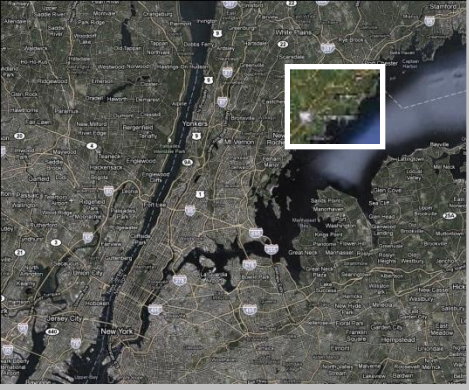


# ON-STREET CROSSWALK SIGN

A street safe for kids







City of Rye

Village of  
Mamaroneck

Town of  
Mamaroneck

Village of  
Larchmont

1 mile





# TOWN OF MAMARONECK



## PALMER AVENUE

between Richbell Road & Depot Way E

FEATURES:

**CENTRAL SCHOOL**

**WALTER'S HOTDOG STAND**

OBJECTIVES:

**RECREATION & FITNESS**  
**SAFETY**



# MAMARONECK CENTRAL SCHOOL

## Insufficient Crosswalk





# SAFER CROSSING



**CURB EXTENSION**



# PALMER AVENUE

Unsafe for bicyclists





# DEFINE PARKING LANE & SHARROWS

## Safe for bicyclists





# WALTER'S HOTDOG STAND

## A Local Culinary Destination







**Bike Parking**

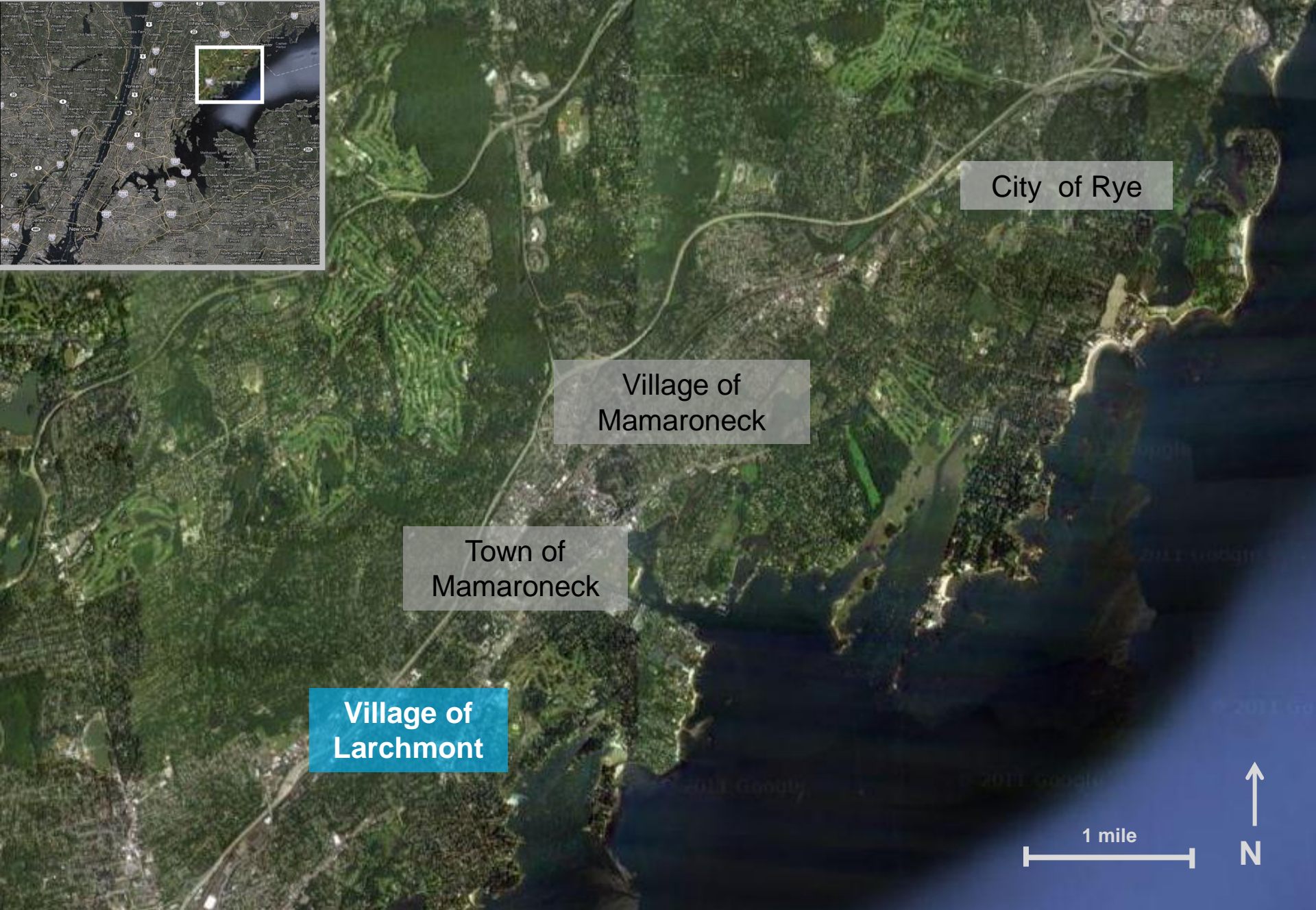
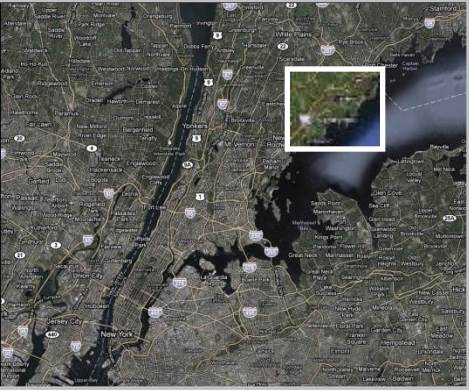


**Pop-Up Cafe**



**GREAT  
DESTINATIONS  
MADE BETTER**





City of Rye

Village of  
Mamaroneck

Town of  
Mamaroneck

Village of  
Larchmont

1 mile





# VILLAGE OF LARCHMONT



## CHATSWORTH AVE

between Palmer Ave & Boston Post Road

## LARCHMONT AVE

between Palmer Ave & Magnolia Avenue

### FEATURES:

**DOWNTOWN LARCHMONT**  
**METRO NORTH STATION**  
**MANOR BEACH PARK**  
**HOUSES OF WORSHIP**  
**MUNICIPAL BUILDINGS**

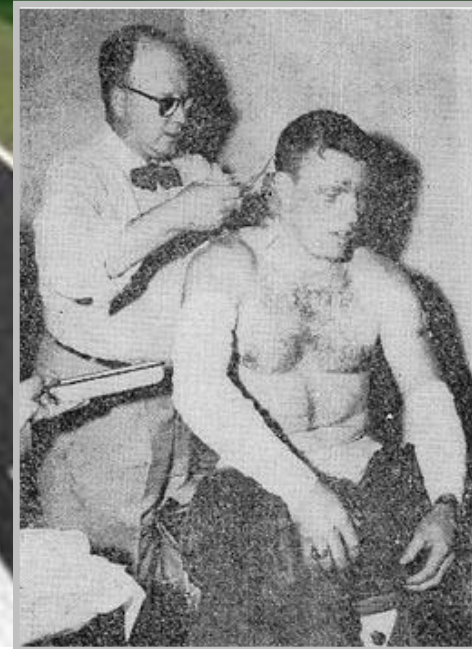
### OBJECTIVES:

**ECONOMIC DEVELOPMENT**  
**RECREATION & FITNESS**  
**INTERMODAL**



# LARCHMONT AVENUE @ Willow

Underutilized & Underused





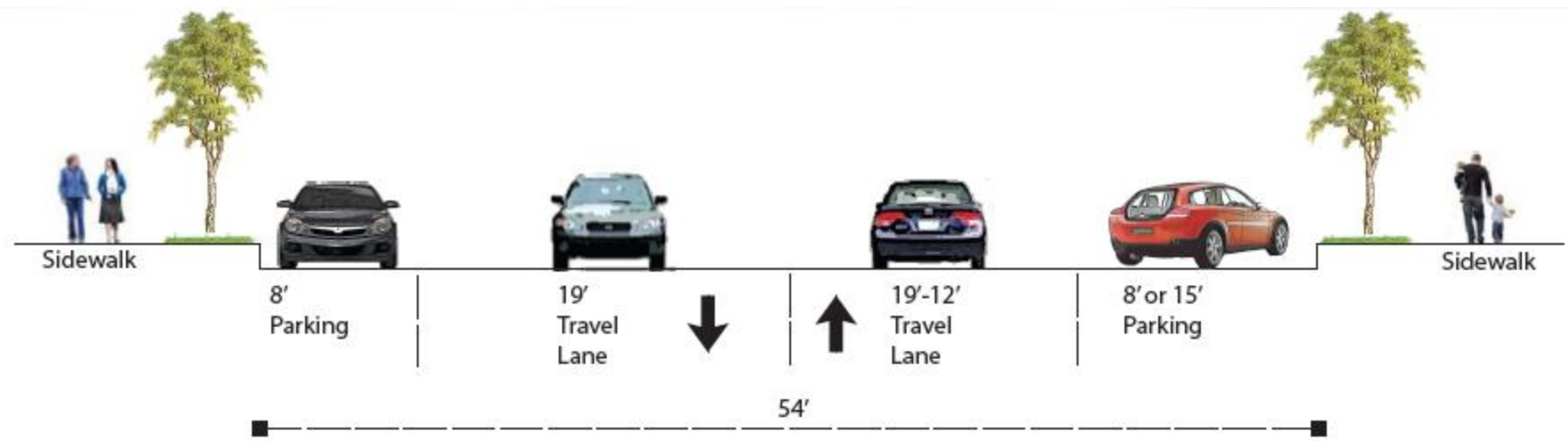


Photos courtesy of Larchmont Historical Society

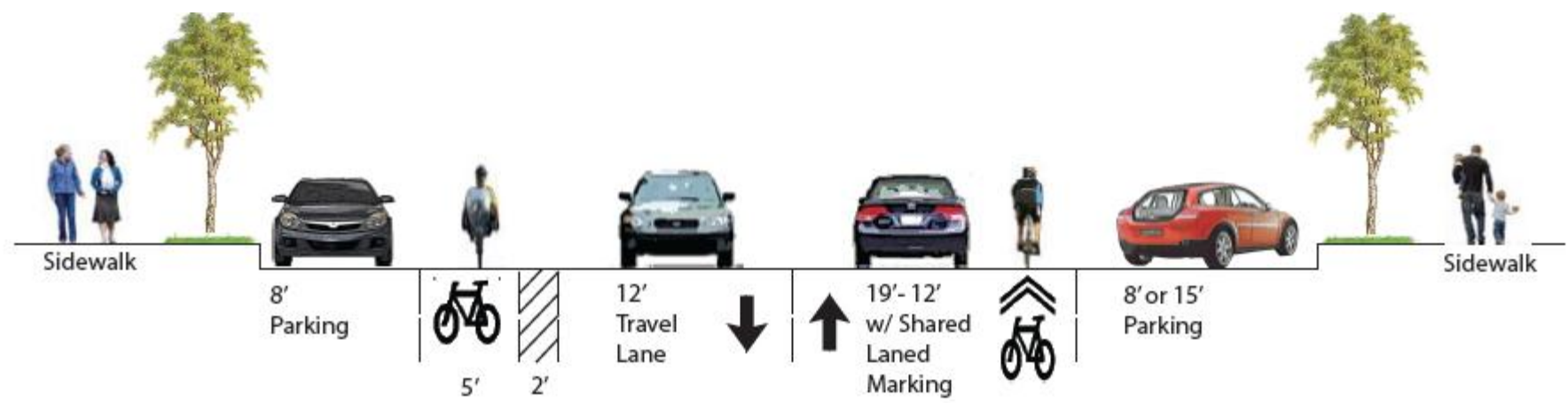
Larchmont Avenue, Larchmont, N. Y.



# EXISTING: Larchmont Avenue (South of Boston Post Road)



# PROPOSED: Sharrow & Bike Lane





# LARCHMONT AVE @ Willow Ave

## Existing Conditions





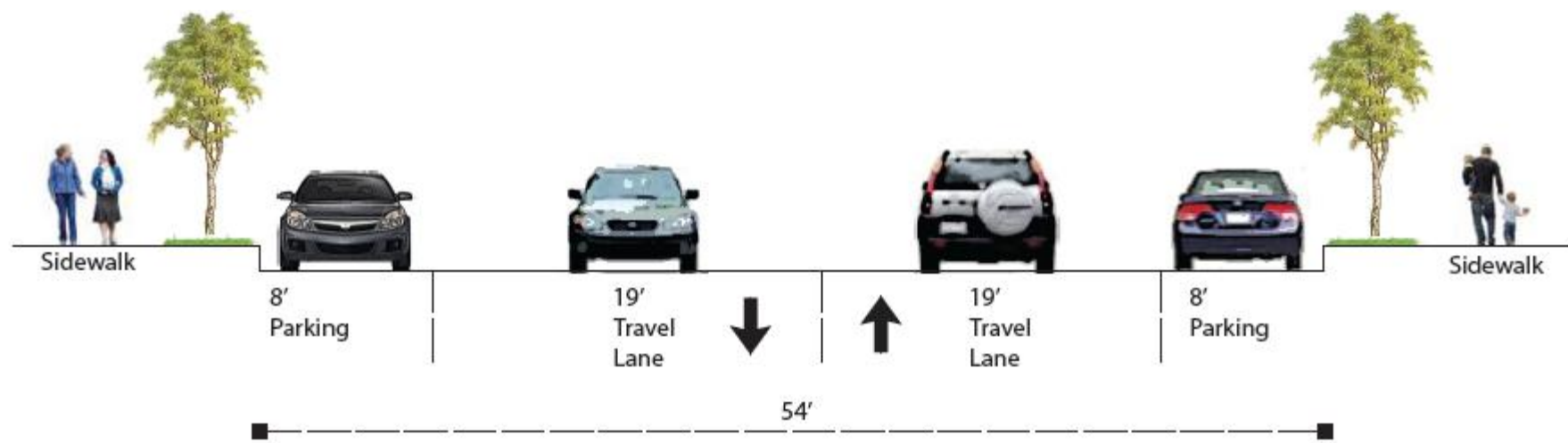
# LARCHMONT AVE @ Willow Ave

Proposed: Sharrow & Bike Lane

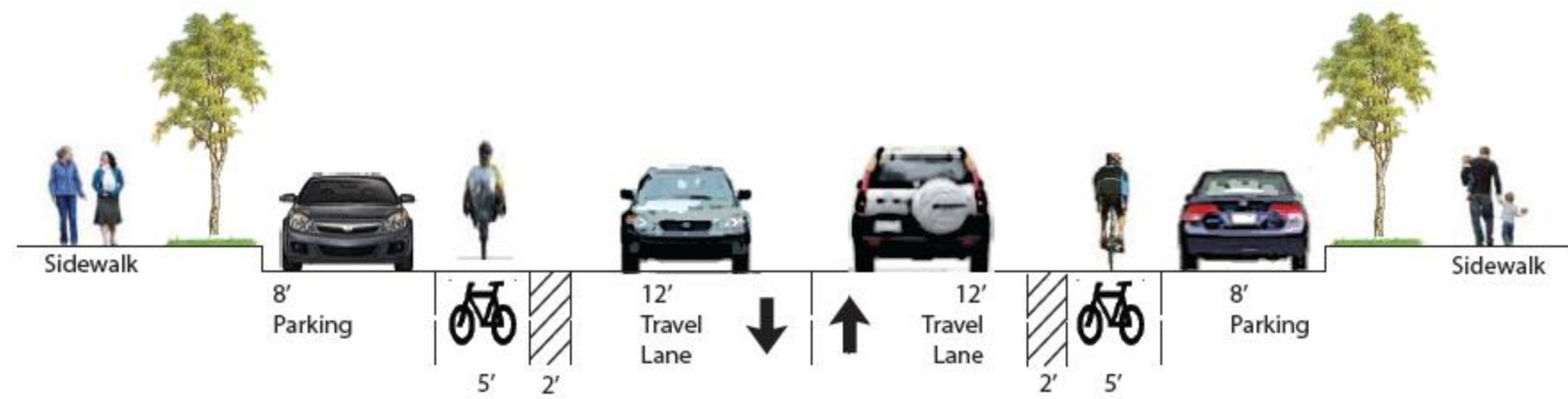




# EXISTING: Chatsworth Avenue @ Summit



# PROPOSED: Bike Lanes & Buffers



# CHATSWORTH AVE @ Summit

## Existing Conditions



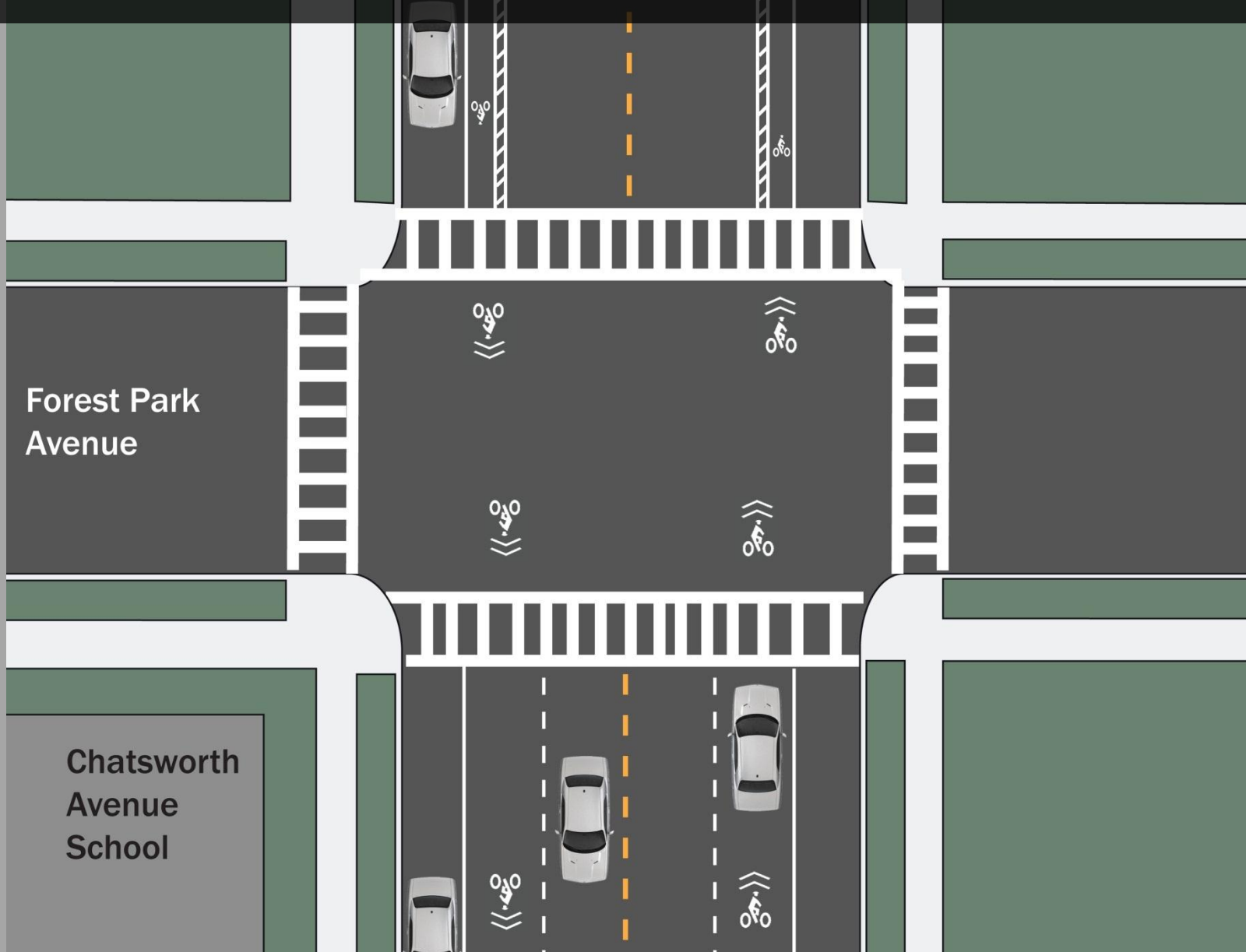


# CHATSWORTH AVE @ Summit

Proposed: Bike Lanes & Buffers



# TRANSITION AT INTERSECTION







# IMPLEMENTATION

# IMPLEMENTATION STRATEGY: POLICY

**STATE A VISION**

**CREATE A CONTEXT**

**DRAFT A POLICY**

**IMPLEMENT POLICY**



**VALUE THE INVALUABLE**

**START SMALL**

**PLAN AHEAD**

# FUNDING SOURCES

## FEDERAL AND STATE

**Safe, Accountable, Flexible, Efficient Transportation Equity Act**

Safe Routes to Schools (SRTS)

Transportation Enhancement Program (TEP)

**SAFETEA-LU EXPIRED MARCH 2011**

## LOCAL

Capital Improvement Plan

## PRIVATE GRANTS





