Route 9 Active Transportation Conceptual Design Plan

Overview
Fall, 2020

GOALS

- Improve safety
- Attract people using Mario M Cuomo Bridge to shops and restaurants
- Invite people to walk along & across Route 9
- Connect the villages with family friendly cycling infrastructure
- Enhance transit use

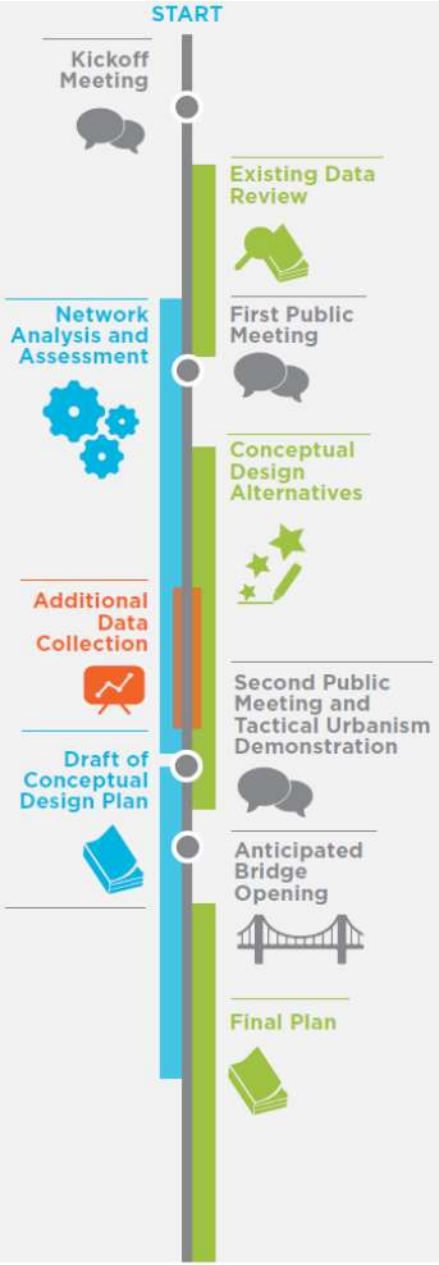
April 2017

June 2017

July-September 2017

October 2017

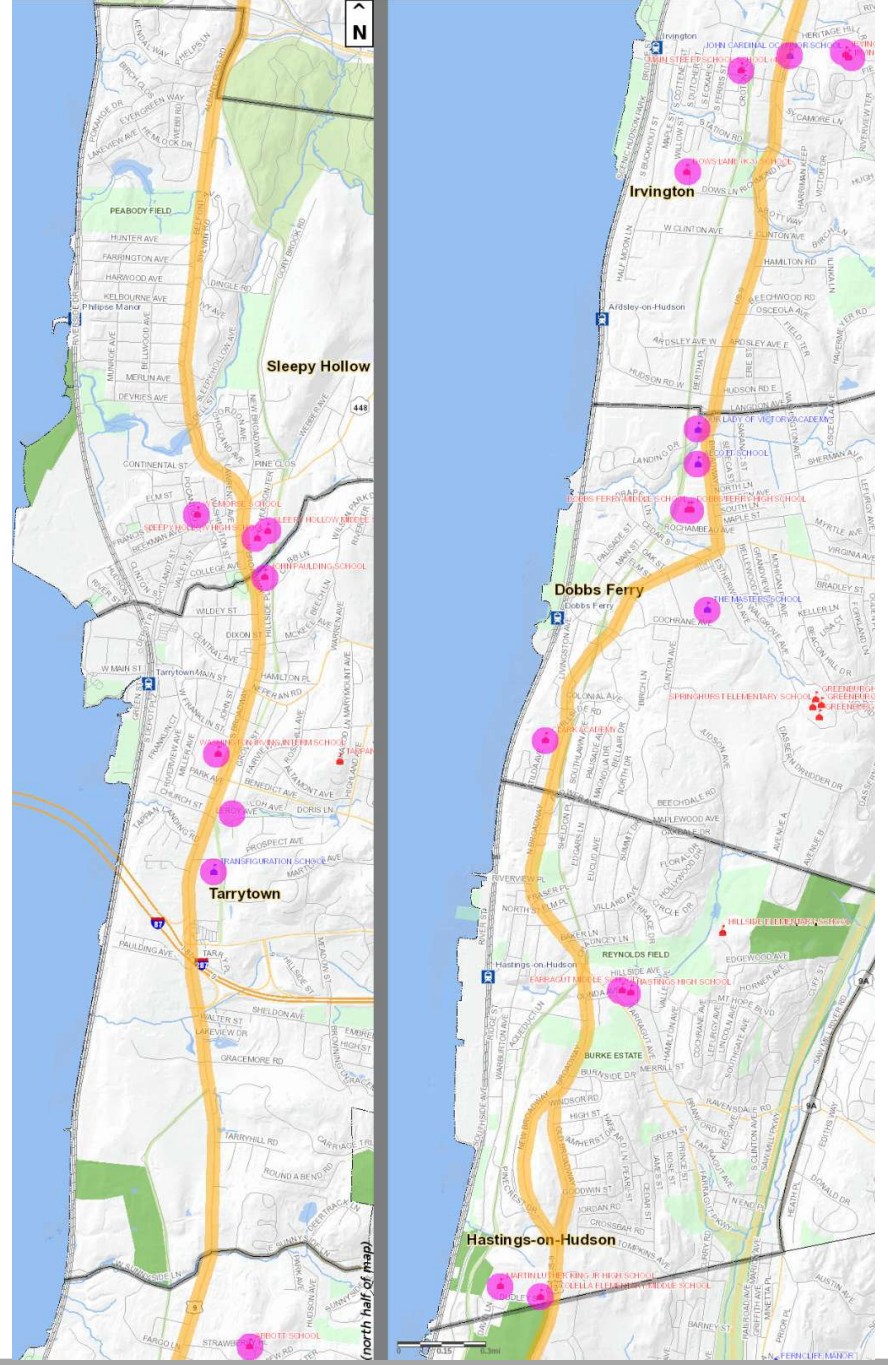
November 2018



CONCERNS

- 23 schools adjacent to Route 9

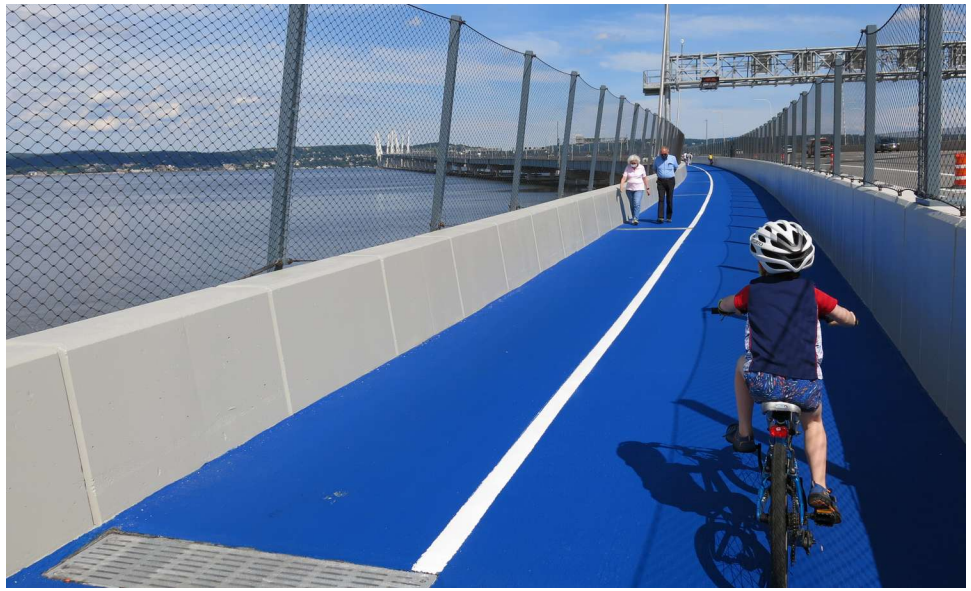
  (indicated by dots on map, right)
- 150 crashes per year *
- Recent fatality of person walking in Dobbs Ferry
- Road perceived as barrier bisecting communities



* NYS Accident Location Information System

OPPORTUNITIES

- New bridge is bringing **more people** walking and cycling to Route 9
- Most trips are **short trips** (school, sports, friends, food, library, etc)
- Safe routes **reduce congestion** by converting short trips to walking and cycling
- **Sufficient width and capacity** to create space for active transportation modes
- Connectivity with **Old Croton Aqueduct Trail & Mario M Cuomo Bridge**
- Enhance **economy & quality of life**

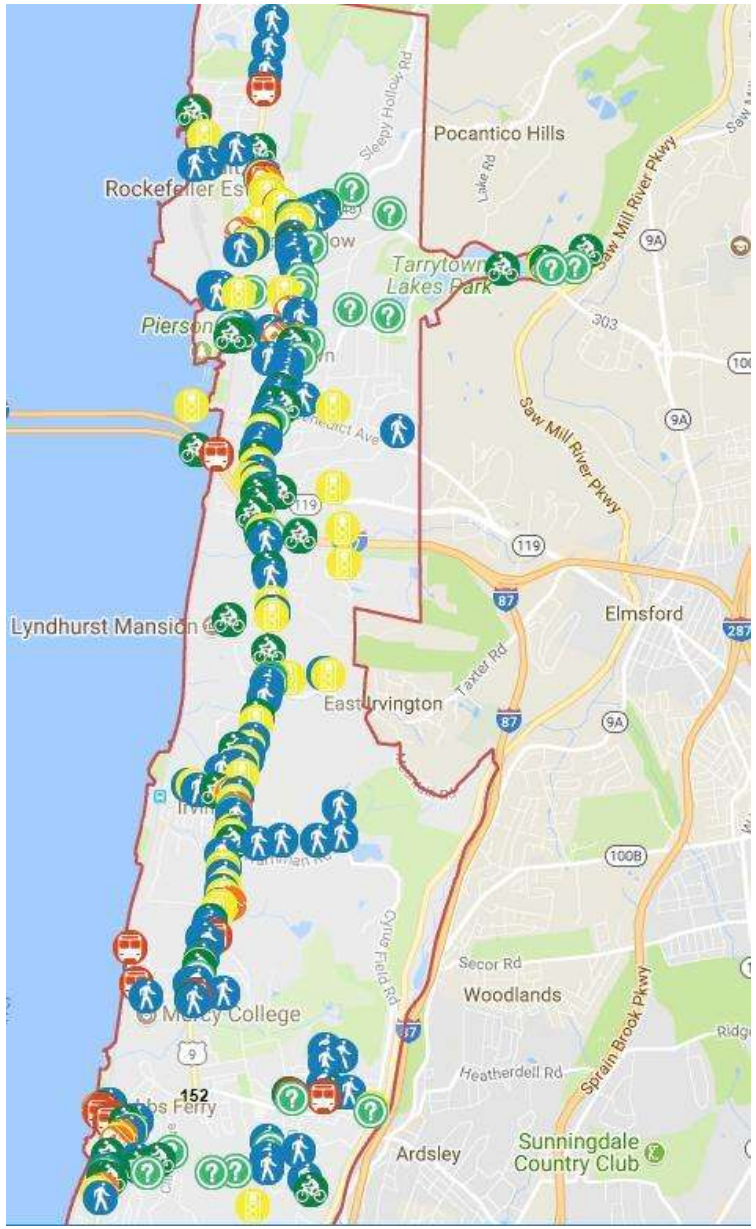


CHALLENGES

- Route 9 is dominated by vehicular traffic
- Walking, biking, and taking transit feel **unsafe**
- **On-street parking** is highly valued
- Some **pinch points** due to on-street parking, higher traffic volumes, walls
- **Unsuitable parallel routes** in most locations (don't exist, hills, unpaved, unlit)

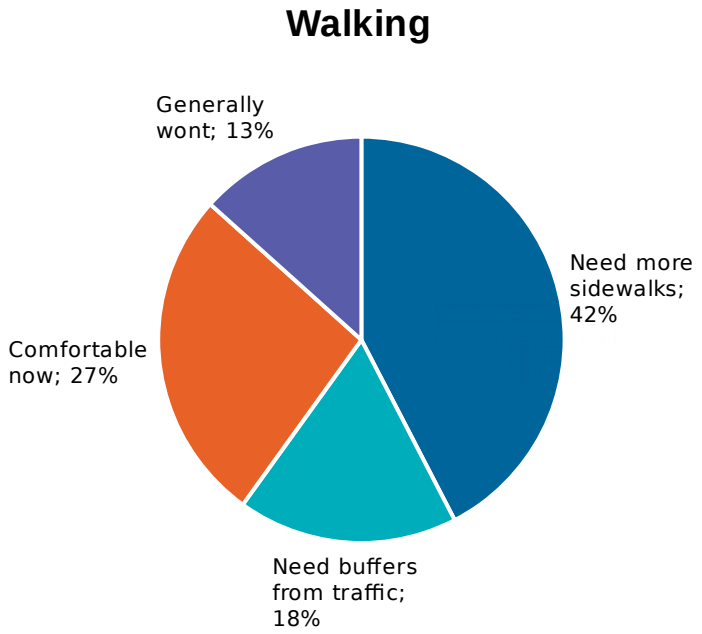
PUBLIC ENGAGEMENT

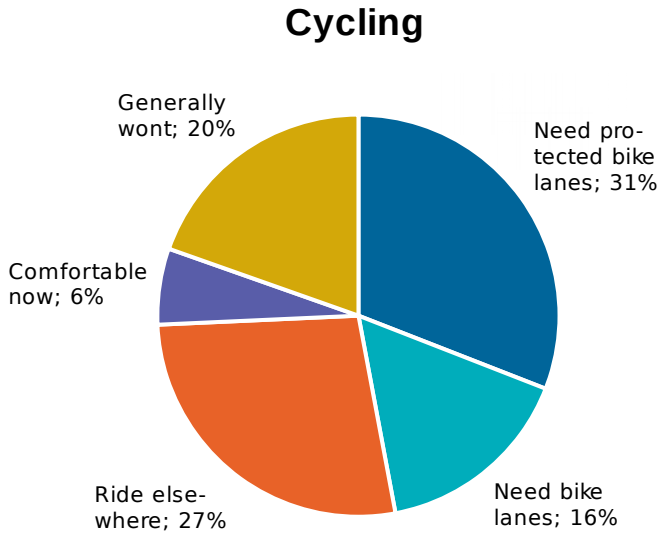
- June 2017 Workshops:
  - 140 attendees
- Online tools:
  - Trade-offs questions
    - 496 responses
  - WikiMap
    - 813 responses



PUBLIC ENGAGEMENT

- October 2017 Workshops:
  - 100 attendees
- Online Survey:
  - Level of biking and walking on Route 9
  - Street design options
    - Over 1,000 responses
- November 2018 Open House
  - Presented Final Report to the public and officials





DESIGN ELEMENTS

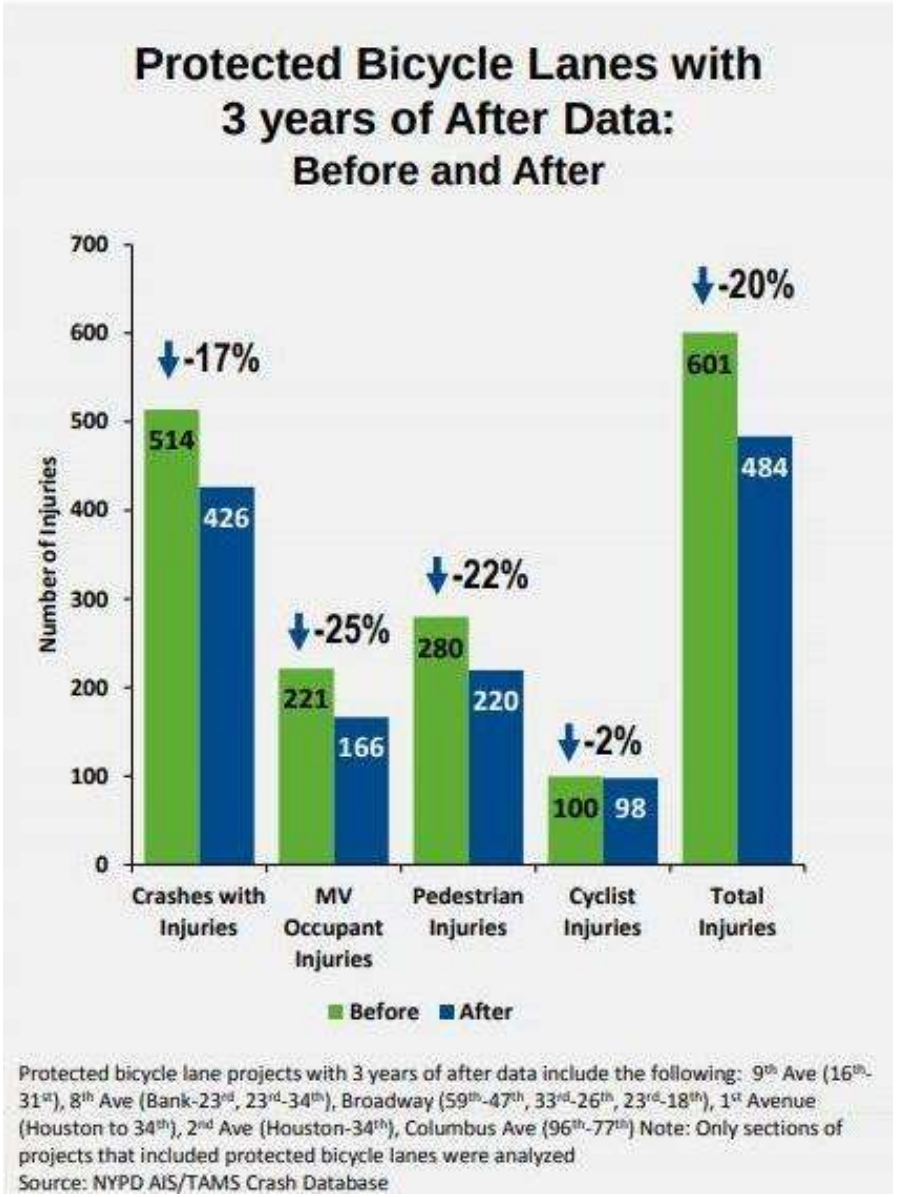
- Sidewalks
- Crosswalks
- Roundabout
- HAWK signals
- Curb extensions
- Pedestrian islands
- Protected bike lanes
- Bus platforms & shelters
- Signal timing adjustments

TRAFFIC IMPACT

- Intersections operating below NYS threshold will continue to
- Delay at other intersections will meet LOS thresholds
- Detailed analysis will be conducted during permitting process
- Future analysis should account for mode shift created by new options

SAFETY IMPACT

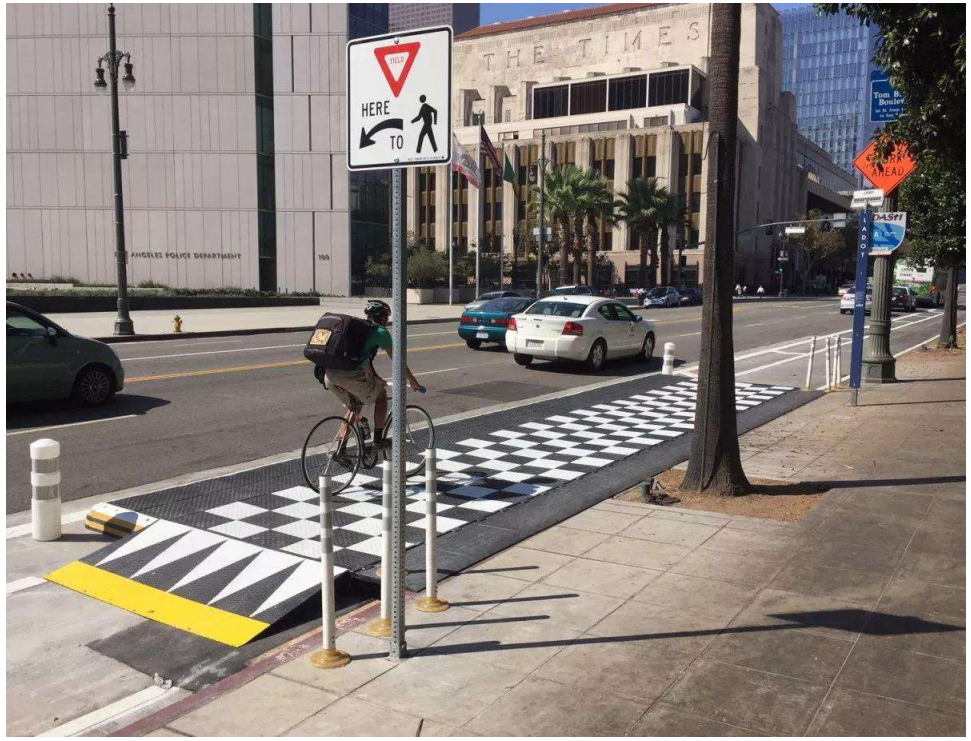
- Similar projects have reduced injuries (for one example, see graph, right)
- Modal separation
- Shorter crossing distances
- Enhanced visibility
- Dedicated turn lanes
- Reduced speeding
- Careful turning geometry
- Detailed review will be conducted during the permitting process



Protected bicycle lane projects with 3 years of after data include the following: 9th Ave (16th-31st), 8th Ave (Bank-23rd, 23rd-34th), Broadway (59th-47th, 33rd-26th, 23rd-18th), 1st Avenue (Houston to 34th), 2nd Ave (Houston-34th), Columbus Ave (96th-77th) Note: Only sections of projects that included protected bicycle lanes were analyzed
Source: NYPD AIS/TAMS Crash Database

TRANSIT IMPACT

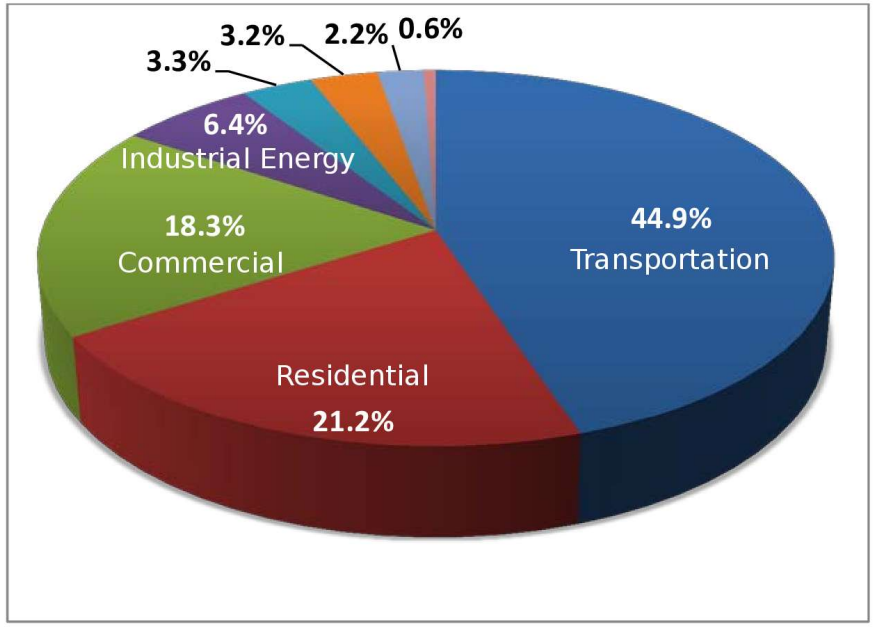
- Replace pole only stops with shelters and benches
- Connect all bus stops to walking network with new sidewalk and crosswalks
- In lane stops overlapping with bike network supported with boarding platform
- Improve bus stop locations and spacing



ENVIRONMENTAL IMPACT

- Transport is region's top carbon emission
- Most trips are short trips
- Safe streets invite more walking and cycling instead of forcing people to drive

Figure 1 - 2010 GHG Emissions in the Mid-Hudson Region, per Sector



Trip Distance Distribution

Percent	Cumulative	Distance
19%	19%	< 1 mile
15%	34%	< 2 miles
11%	46%	< 3 miles
8%	54%	< 4 miles
6%	61%	< 5 miles
5%	66%	< 6 miles
12%	78%	< 10 miles
8%	86%	< 15 miles
14%	100%	>= 15 miles

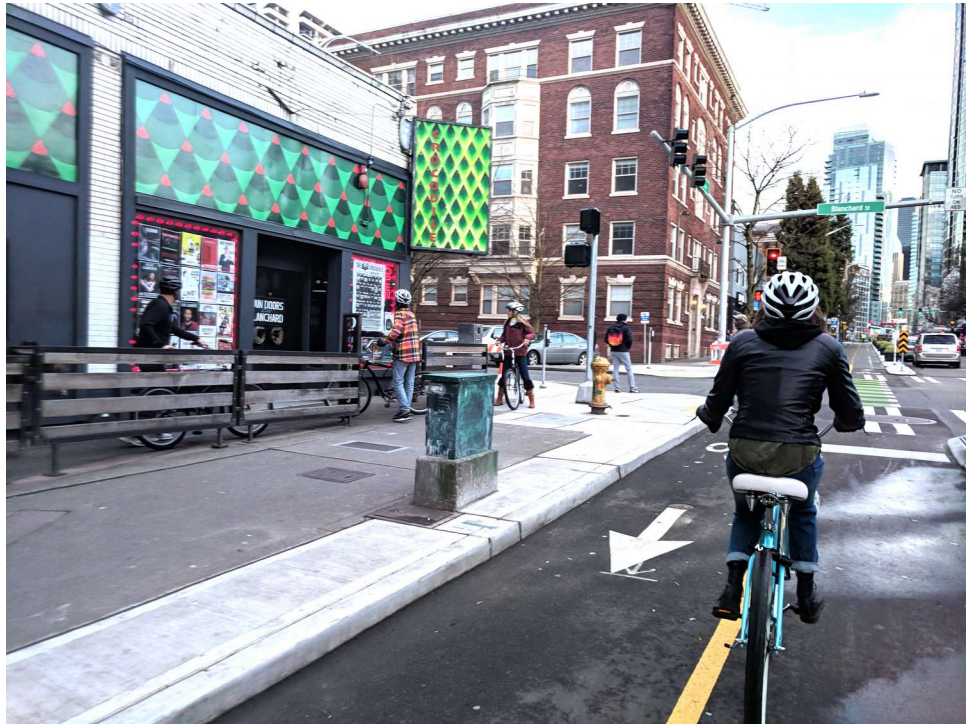
Data: 2017 National Household Travel Survey, USDOT

Tabulation of all person trips in trippub.csv by:

BIKETARRYTOWN

ECONOMIC IMPACT

- Numerous studies show cycling and walking enhancements increase retail sales. People walking and cycling:
  - Shop locally
  - Spend more money per month locally
  - Fit more people in a given space
  - Free up parking spaces
  - Make places calmer and vibrant, attracting more people to spend time and money there



EQUITY IMPACT

- Low income residents tend to rely on walking, cycling and transit
- Half of households in study's villages have access to one or no vehicles *
- Car ownership strains family budgets, costing $9,300 / year **

* Census Bureau, American Community Survey, 2017
** AAA, “Your Driving Costs,” 2019

PRELIMINARY COST ESTIMATES

- Total construction estimate $6M to $36M, depending on options chosen
- Expectation of joint grant application and funding for engineering design and construction

Village	Low cost estimate	High cost estimate
Sleepy Hollow	$0.9 M	$5.0 M
Tarrytown	$1.5 M	$9.2 M
Irvington	$1.3 M	$6.8 M
Dobbs Ferry	$1.3 M	$5.8 M
Hastings-on-Hudson	$1.6 M	$9.4 M
Total	$6.6 M	$36.2 M