

3rd Avenue Green Wave: An Analysis



NYCTM



May 2026

E 75 St

E 75 St

E 76 St

ONE WAY

Ready
Willing
& Able

LENWICH
CITY



Third Avenue 15 MPH Green Wave Signal Progression

The 2023 3rd Avenue (59-96th St) redesign created improvements for pedestrians, cyclists, and 50,000 daily bus riders. The redesign was a direct response to the safety issues along the corridor.

The following year, in early 2025, a further adjustment was made to the corridor with the traffic signals adjusted to turn green for vehicles travelling at 15 mph. This was done primarily to reduce conflicts between cyclists and pedestrians but has other benefits as well.

The Cycling & Micromobility Unit looked at the data following this full year of implementation, with an overview provided in this document.



15 MPH Green Wave Benefits

A cyclists Green Wave signal progression offers many benefits to all users of multimodal corridors, primarily on safety, comfort, and efficiency:

Reduces incidences of cyclists running red lights, and reduces conflicts between cyclists and pedestrians.

- Increased cyclist green arrival rate, reducing % of cyclists arriving on red
- Improved compliance: incentive to wait at one red light to get all green lights

Slows speeds through the corridor

- Reduces the high end of cyclist speeds
- Reduces overnight vehicle speeding
 - » Speed is one factor that we, as the City, can control in the challenge of larger vehicles in the US. From the 2023 IIHS study “pickup trucks, SUVs and vans with a hood height greater than 40 inches are 45% more likely to cause fatalities than shorter vehicles with a hood height of 30 inches or less.” As vehicles continue to get heavier and taller, we need to be even more vigilant about speeds.

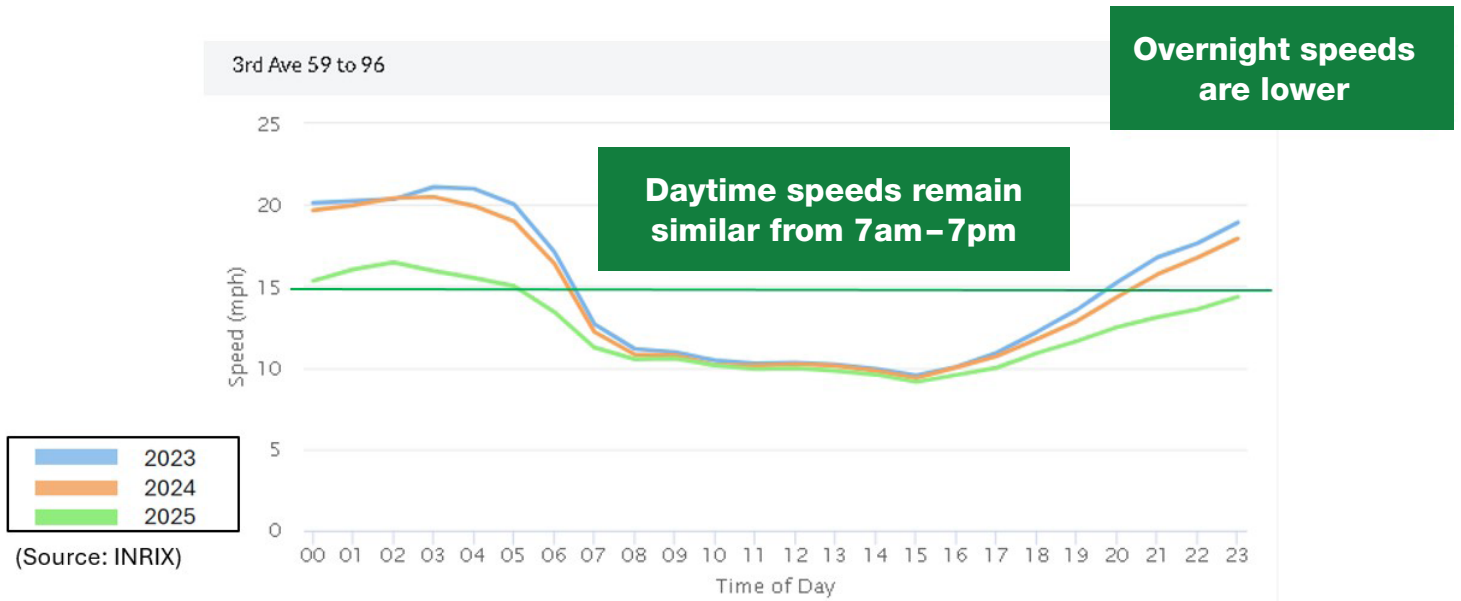


Additional benefits

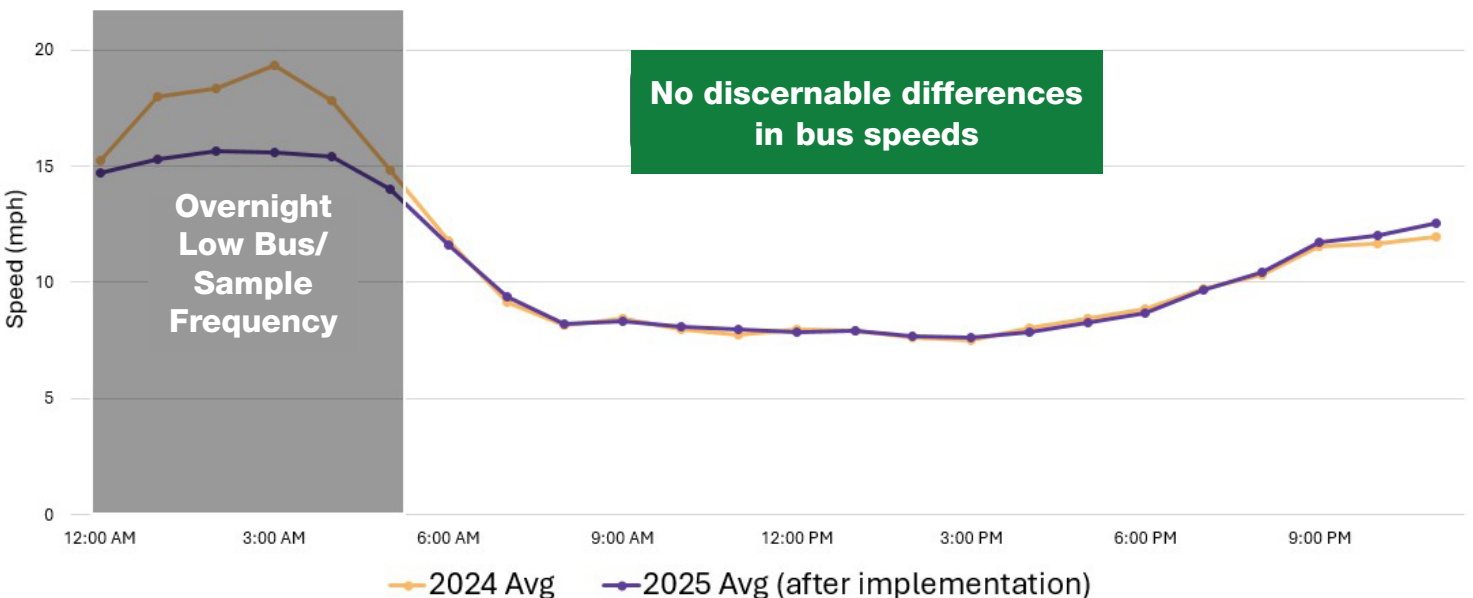
- Supports mode shift by making cycling easier and reducing delays
- Platooning of cyclists can improve visibility and reduce conflicts at intersections
- Allows for additional split phase locations without adding delay

Additionally, it reduces the gap between existing driver speeds and the progression speed during the most traveled hours of the day

3rd Ave Vehicle Speeds by Year 59th St – 96th St, July–December 2025, Weekdays



Average Bus Speeds on 3rd Ave from July to December (Tu, We, Th), 59th St to 96th St





PENSKE
Truck Rental

1019A

JP
JUST PLANTS

Cyclist Signal Compliance

Video was recorded and processed at two intersections on 3rd Ave (at E 81st St and E 92nd St) in 2024 and 2025 to examine behavioral differences pre- and post-timing changes. Over 750 bike lane users were observed during both periods.

- Overall, the green arrival rate for cyclists increased from 81% to 85%
 - » This means there are fewer cyclists that can cross against the signal and that they are receiving the benefit of the green wave whether they know it or not
- The number of bike lane users who did not slow on when approaching a red light decreased from 8% to 4.5%
 - » This suggests people understand the benefit of waiting for the green light to catch a green wave timed at cyclist speeds

An analysis of the Hoyt & Bond St green waves found similar results: **+10%** increase in proportion of cyclists arriving during green signal phase **+10%** increase in cyclists compliance at red signals.





Corridor Suggestions

The findings on 3rd Ave suggest that 15 mph signal progressions on these major multimodal avenues can provide safety, comfort and efficiency benefits for cyclists, reduce conflicts with pedestrians, and generally calm the street without impacting bus speeds or driver speeds during most hours of the day. This gets at the root cause of many our safety and behavioral challenges and hits the core tenets of Vision Zero and a Safe System Approach.

Next Steps

- Install Green Wave signal timing on 3 additional corridors throughout Summer 2026:
 - » **First Avenue from Houston Street to 19th Street (full time), from Houston Street to 34th Street (off peak and weekends)**
 - » **Second Ave from 32nd St to Houston St**
 - » **Hudson St/8th Ave from Canal St to 23rd St**
- Evaluate effectiveness of newly added corridors including updating limits and hours.
- Create list for future expansion with a focus on:
 - » **One-way streets with protected bike lanes**
 - » **Streets with high bicycle volumes**
 - » **Bike boulevards and on-street greenways**



E 76 St

WAY
DEPT OF TRANSPORTATION

