

Middle St / Lafayette Rd Bicycle Route Post-Construction Report Back

Parking Traffic & Safety

December 5, 2019

Design Modifications implemented in 2019

- Reduced total number of flexible bollards by 54% (60 total)
- Used a shorter, more flexible, and better quality bollard with easier install/removal option
- Increased distance between bollards (from 40' to 80' in most locations)
- Removed bollards in locations where painted buffer is wider and on outside curves
- Kept bollards in locations where painted buffer is narrow, at intersections, and at start and end of on-street parking areas
- Moved bollards to inside of painted buffer area (away from vehicular travel lanes)
- Removed one-parking space at Aldrich intersection

Middle St / Lafayette Rd Bike Lanes -- 2019

- No flex posts (bollards) from November 20, 2018 to July 3, 2019
- Installed reduced number of posts – with follow-up monitoring to compare to traffic behavior with no posts
- All lines re-painted as part of the annual city-wide line striping program

Traffic Crashes

	Pre-Bike Lanes (10/2017-10/2018)	Post-Bike Lanes (10/2018-10/2019)
# of total crashes reported to Police Department	26	25 (with flex posts = 7*) (no flex posts = 18)
# of crashes involving personal injury	3	2
# of reportable crashes (greater than \$1K of damage)	20	16

*Flex post bollards were installed for 5 months during this period

Traffic Crashes

Post-Bike Lane Crashes

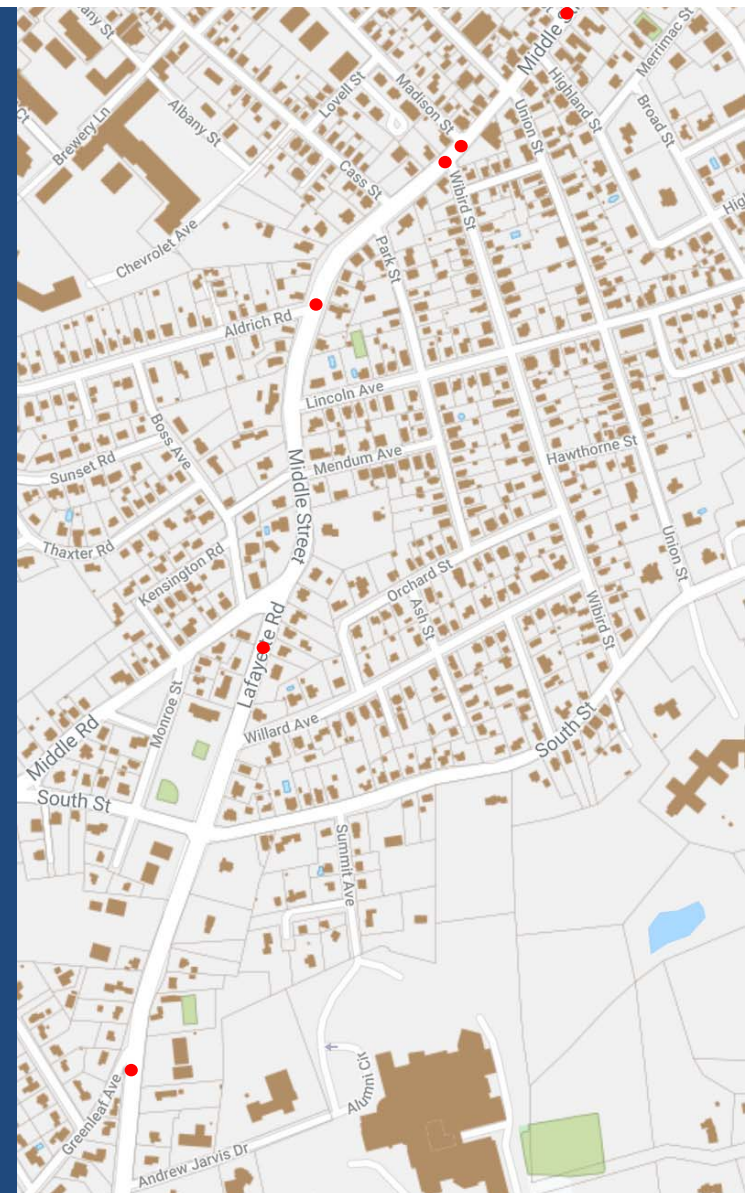
- Police Department reviewed reports for the 16 reportable accidents (where damage was greater than \$1K in value)
- None involved bicycles or pedestrians
- Four (4) involved cars in newly created parking spaces*
 - 3 in October 2018, 1 in November 2018, 1 in January 2019
 - 2 rear ends (one involving a DWI), 2 side view mirror struck by passing vehicle
 - 2 occurred after the flex post delineators (bollards) had been removed for the winter season

**Police Department has also noted that at least two of the prior year crashes also involved parked cars (pre-bike lanes)*

Traffic Speeds

	Avg. Speed	85 th Perc.	Bike Lanes	Bollards
Cabot St*	27	33	No	No
Madison St	26	29	No	No
Madison St	26	29	Yes	Yes
Madison St	27	29	Yes	No
Wibird St*	26	29	No	No
Aldrich Rd	29	32	No	No
Aldrich Rd*	29	33	Yes	No
Middle Rd	30	33	Yes	Yes
Middle Rd	31	34	Yes	No
Greenleaf Ave*	26	29	Yes	Yes

Data displayed is for inbound traffic speeds only
 Additional speed counts needed at * locations to provide comparative data



Bicycle Counts

- Bicycle counts conducted in October 2018, April 2019, May 2019, July 2019, and October 2019 at various points along the corridor
- Do not show a significant change from bicycle counts prior to the bike lanes

Feedback from Public

- Overall aesthetic – paint, bollards
- Width of travel lanes and travel way
- Parking space locations and design
- Sight lines at intersections
- Bike lanes don't continue past Cabot St, incomplete
- Bicycle separation from traffic
- Traffic speeds
- Maintenance, snow removal
- Increase number of pedestrian crossings

Observations

- Number and severity of crashes since bike lanes were installed has decreased.
- Addition of the flex posts (bollards) results in lowering of travel speeds.
- Need more data on travel speeds to compare pre and post installation results at different locations.
- Important to continue tracking bike lane usage at all seasons, with and without bollards and also survey students and families.