

From: David Shepler, Principal at Zero Place, and Dr. Phil Grealy, Maser Consulting

Subject: Parallel parking and adjacent bike lane with additional striping / iconography

We appreciate the ongoing discussion regarding the relative merits of both on-street parking on Route 32N and an adjacent bike lane. We have suggested that overall safety is improved by having BOTH parallel parking and a bike lane, particularly if the bike lane is expanded beyond the NYSDOT standard of 5 feet¹. As you know, we have proposed a 6-foot bike lane. **After conducting the review described below, we also now propose to add an interior stripe and additional iconography to the bike lane to clearly demarcate the bike lane and increase driver awareness.**

We remind you again of the support of the Village Bicycle Pedestrian Committee², the Village Board³, and the permission granted by NYSDOT⁴. We would like to begin by extending the rationale for the current proposal of 8-foot parking bays and a 6-foot bike lane along the west side of Route 32N.

1. **Pedestrian Safety:** Parallel parking forms a natural buffer between traffic and pedestrians, providing more space from traffic and, when occupied, separating the sidewalk and pedestrians from the moving traffic on Route 32N.
2. **Visual “friction”, improving bicycle safety:** As the NBR transforms the corridor from a rural highway to a higher density, mixed-use zone, it is critical that drivers begin to adjust behaviors for the safety of pedestrians and bicyclists. As mentioned by the Village Bike Ped Committee, parallel parking creates “friction” for moving traffic, slowing down vehicles as they enter the area. Drivers are warier of cars pulling out of parking, so they naturally slow down; additional bike and pedestrian signing helps reinforce this. The collective result is an improvement in safety for all modes of travel, including bicycles.
3. **Vision of the NBR zone:** The Village Board voted unanimously in support of on-street parallel parking here³, indicating their belief that it is most consistent with the vision of a higher density, mixed use zone like a village center. Throughout the state, areas that promote street-front businesses have parallel parking, including New Paltz. After all, as 32N approaches the Village center, it has continuous parallel parking, beginning at N. Front Street.
4. **Parallel parking helps businesses.** In particular, on-street parking allows for quick trips. Being metered or hourly limited parking, it will not be used for long-term needs like residential parking. This is important for the success of the businesses particularly on the south end of the building and ones that offer quick services (e.g., coffee service). Although the distances are admittedly less, please consider how businesses along Main Street would react if the parallel parking were removed and drivers were asked to use the municipal lots on either end of the strip (corner of 32N & Main and on Plattekill Ave)?
5. **Pollution barrier for pedestrians:** According to a 2011 study conducted by Trinity College, Dublin, pedestrians are exposed to 31% to 49% fewer pollutants when a parallel parking bay buffer is used on city streets.⁵

Proposal: add (1) an interior stripe to demarcate the bike lane boundary and (2) additional iconography. Upon review of bike lanes found adjacent to parallel parking across the country, we believe safety would be further enhanced by adding the interior marking and significant iconography to the full length of the proposed bicycle lane along the parking-adjacent section of Route 32N.

As you can see from Figure 1. (New York City), the 8-foot parallel parking lanes provide their own natural buffer from the bike lane since cars are of smaller width than the parking lane. This is proving increasingly the case as automobiles continue to shrink in size. From this image, it is also apparent how important it is to maintain striping on both sides of the bike lane. The outer stripe guides drivers away from the bike lane while the inner stripe indicates to parking vehicles the importance of parking as close to the curb as possible and to be wary of approaching bicyclists when exiting the vehicle.



Figure 1. Parallel Parking and Adjacent Bike Lane in New York City

As you can see in Figure 2. (Phoenix, AZ), further elaboration of the bicycle lane from either coloration, iconography, or additional striping, can further enhance awareness of the bike lane. The bike lane in this image is only 5 feet in width and provides a very clear corridor for bicyclists. We propose 6 feet to improve buffering and safety. Notice also that we have allowed for a 12-foot road width versus the 10-foot lane shown here.



Figure 2. Rendering of New Parallel Parking and Painted Bike Lane in Phoenix, AZ

We ask for your full consideration of pedestrian and bicyclist safety; support of the future businesses and customers of Zero Place; and the opinions, support and permissions offered from the various agencies and experts mentioned herein. With the additional striping and iconography now joining the previously proposed curb bulb-outs and widened bike lane, this proposal is now well beyond the standards offered by all relevant agencies and is in full accordance with 'complete streets' principles. We see no basis upon which the Planning Board should disapprove this aspect of our proposal.

Sincerely,

David Shepler
Principal, Zero Place

Philip J. Grealy, Ph.D., P.E.
Maser Consulting, P.A.

References:

¹ NYSDOT Design Manual, March 30, 2006. Exhibit 17-4 Bike Lane with On-Street Parking.
https://www.dot.ny.gov/divisions/engineering/design/dqab/hdm/hdm-repository/chapt_17.pdf

² Zero Place Memorandum, New Paltz Bicycle Bedestrian Committee (BPC), "Re: Zero Place", July 1, 2016:

1. *On-street parallel parking on Chestnut/32:*

We are in favor of the proposed plan for parallel parking on 32, given that the applicant's proposed design allows for a 6-foot shoulder between parking areas and traffic lanes. We feel that if a 6-foot shoulder exists, the parallel parking area would increase driver awareness, serving as a signal to inbound motorists that they are entering an area of increased population density.

Full memo available at: <http://www.zeroplace.com/s/B-08-Bicycle-Pedestrian-Committee-Memo-to-Board-1-Jul-2016.pdf>

*Note: The Zero Place project has now adopted EVERY recommendation made by the BPC in its July 1, 2016 memorandum, including (1) moving the loading dock away from the Rail Trail, (2) adding bulb-outs/curb extensions, (3) sidewalk extensions, (4) supporting the re-routing of the bike trail on Henry Dubois onto Church Street, (5) multiple crosswalks slowing traffic, (6) adoption of 'complete streets'.

³ On October 26, 2016, the Village Board voted unanimously (3-0) on the following motion:

Mayor Rogers motioned to support the idea of parallel parking on Route 32/North Chestnut in front of the proposed Net Zero apartment complex, while deferring to the Village Planning Board regarding consideration of what is an adequate level of parking; Trustee Young seconded; all present voted Aye (3-0).

⁴ Letter from David Corrigan (NYSDOT) to Barry Medenbach (Zero Place engineer), Subject: 2016 11 17 – NYSDOT – Zero Place Parallel Parking Request, November 17, 2016.

The Department has reviewed the revised plan provided along with the village's support of the parallel parking and has determined that parallel parking along Route 32 will be permitted by the Department. The plan that you provided dis (sic) not depict the right of way line along the area of the parallel parking. We will require 5' of sidewalk behind the curb to be completely within the state right of way. A land donation may be necessary based on the amount of available ROW. Aside from that we are in acceptable of the concept as it is currently presented.

⁵ Gallagher, J., Gill, L.W. & McNabola, A. (2011). Optimizing the use of on-street car parking system as a passive control of air pollution exposure in street canyons by large eddy simulation. Atmospheric Environment. 45(9):1684-1694. Doi: 10.1016/j.atmosenv.2010.12.059. <http://www.polisnetwork.eu/publicnews/264/45/Parallel-parking-improves-air-quality-on-urban-pavements>