



Department of Transportation

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The City of Madison needs to resurface West Washington from Broom to Bedford. This provides the opportunity to rebalance the pseudo 4-lane street to better reflect the needs and priorities of the City of Madison. All of the five alternatives reduce the amount of space allocated for motor vehicle travel. They are:

1. 1 Shared Bus/bike lane, 2 travel lanes, 1 buffered bike lane, parking both sides.
- 2a. 1 bus lane, 2 travel lanes, 2 buffered bike lanes, parking on one side.
- 2b. 1 bus lane, 2 travel lanes, 2 protected bike lanes, parking on one side.
3. 1 bus lane, 2 travel lanes, 2 protected bike lanes, no parking on either side.
4. No bus lanes, 2 travel lanes, 2 buffered bike lanes, parking on both sides.

Factors that influence the decision include:

- The Urban Design Recommendations from the Mifflandia Neighborhood Plan include *“Id. Preserve and enhance the wide terraces and Capitol views along W Washington Ave.”*
- The Transportation Recommendations from the Mifflandia Neighborhood Plan states *“4.a.*
 - i. Restripe W Washington Ave between Bedford St and Broom St as a two-lane facility with considerations for on-street parking, bike lanes and potential improvements in transit service.*
 - ii. Add pedestrian refuge islands at intersections of Broom St and Bassett St.*
 - iii. Pavement area should not be expanded beyond the current width of 56 feet”*
- The BRT project must relocate bus routes off of State Street to reduce bus congestion. Some businesses on State Street also would like to reduce bus volume. The installation of priority transit improvements (eg bus lane) on West Washington provides the opportunity to accomplish this objective.
- The 2019 utility project on West Washington Ave illustrated that a 2-lane West Washington Ave could acceptably accommodate traffic volumes when turn lanes are provided.
- West Washington Ave is in an RP3 permit area where permits to parking spaces are oversold at a ratio of 2 to 1. Removal of parking would require a public hearing.
- The City continues to pursue a Complete Streets policy that was adopted in 2009 by resolution.

Summary of Effects

The following table summarizes the level of accommodation provided for each mode.

Alternative	Parking	Bike Accomodation	Bus Lane	Discussion
1	Both Sides	Combined with Bus Lane entire corrid	Included	Bikes and Buses share space entire corridor Parking 58 -> 46 spaces
2A	One Side	Painted/Buffered Bike lanes	Included	Bikes and Buses share space at intersections Parking 58 -> 19 spaces
2B	One Side	Protected Bike Lanes	Included	Bikes and Buses share space at intersections, Parking 58 -> 17 spaces, Special Equipment needed in Winter
3	No Parking	Protected Bike Lanes	Included	Bikes and Buses share space at intersections, Parking 58 -> 0 Spaces, Special Equipment needed in Winter
4	Both Sides	Buffered Bike Lanes	Not Included	City DOT doesn't recommend Bus Re-Route dependent upon bus lane, Parking 58 -> 48 spaces Special equipment required in Winter

The choices provided are an example of why Madison is conducting the Complete and Green Streets study that will provide a street typology. Within the right of way there is a finite amount of room, and it is difficult to accommodate all city priorities and values to the fullest degree. The street typology will help identify which modes warrant higher accommodation levels.

Recommendation

The Department of Transportation recommends Alternative 1 for the following reasons.

- It provides a bus lane, enabling the rerouting of buses from State Street. The rerouting of buses from State Street is a key requisite in the implementation of BRT. If this decision is not made now, it will need to be made prior to 2024.
- While not providing an “All Ages and Abilities” bike facility, this alternative still markedly improves bike accommodations along the West Washington corridor. Low traffic stress bike corridors exist on the parallel corridors of West Main Street and West Mifflin Street.
- While buffered bike lanes typically provide a lower stress facility for cyclists, staff believes that in this instance buffered bike lanes are not the optimal facility. As described in the narrative at the end of this memo, we believe a shared westbound bike/bus lane provides a safer facility and reduces the conflict associated with buses crossing a bike lane in their blind spot.
- While parking preservation is not a focus of Madison’s Transportation policy, on-street parking is in shorter supply in this neighborhood and the parking on West Washington has a high occupancy rate. Alternative 1 preserves the majority of parking spaces.

If the Transportation Commission decides against Alternative 1, the Transportation Department could also support Alternative 2. Note that Alternative 2 would increase bike-bus merging conflicts.

Sincerely,



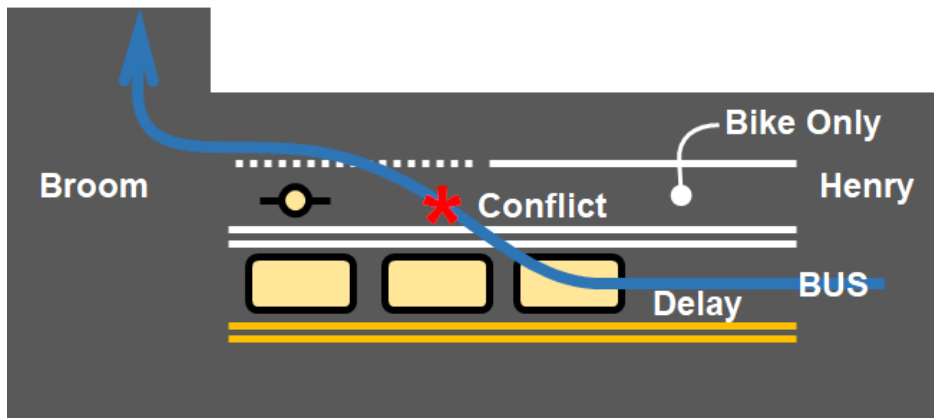
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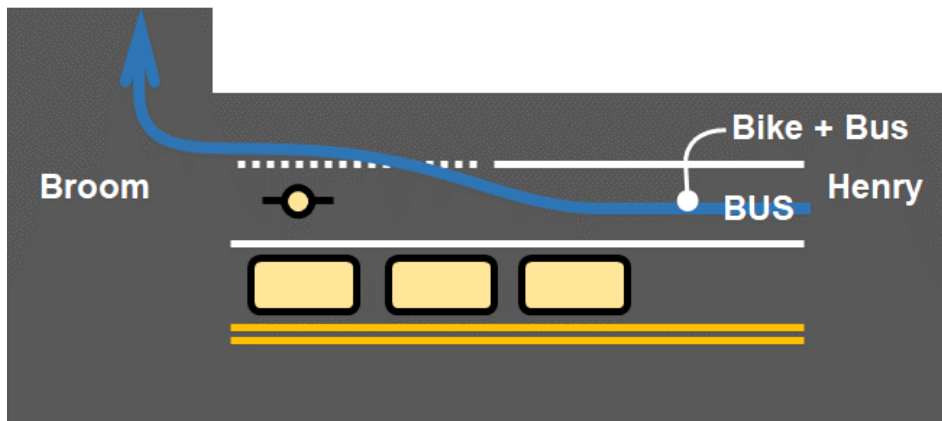
Bus/Bike Merging Considerations

Westbound, buses would enter the bike lane somewhere between Henry and Broom to turn right at Broom. Since this stretch is downhill, bikes and buses are going essentially the same speed and there will be no bus stops. Therefore, staff think that it will be safer to have buses and bikes share the lane from the beginning rather than have buses merge into the lane towards the end. There have been several accounts of buses cutting off bicyclists as they try to merge right if the bicyclist is in the driver's blind spot.

Westbound Separated Bike Lane

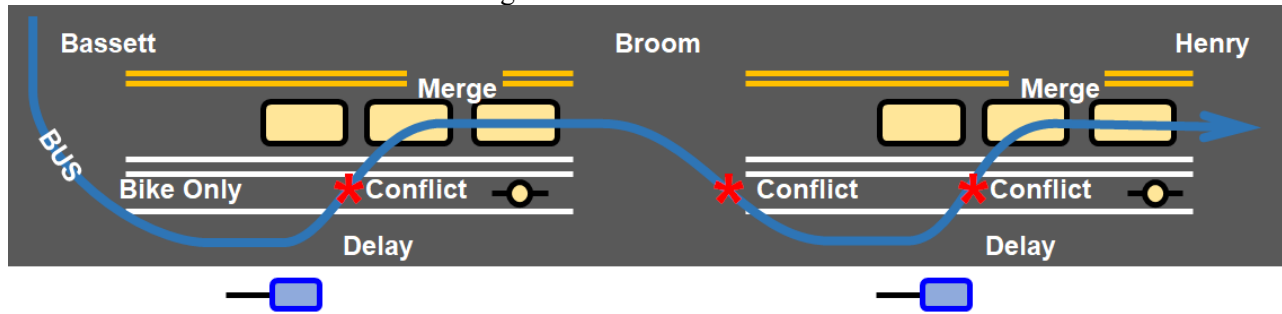


Westbound with shared bus/bike lane:



Eastbound, most buses would enter West Washington Avenue by turning left from Bassett Street. Without a bus lane, they would serve the far side Bassett Street stop, then cross the buffered bike lane, merge into traffic, cross the bike lane again to serve the far side Broom Street bus stop, and finally cross the bus lane a fourth time to reenter traffic. This combination of conflicts, merges, and delays would not only delay buses but would also create conflict points for bikes using the corridor. Staff believe the better design for bicyclists is to have the buses merge into the lane twice rather than cross it four times. In some cases these conflicts can be avoided with island bus stops which are not practical on West Washington Avenue because of the single travel lane.

Eastbound with buffered bike lane full length.



Eastbound with bus lane and buffered bike lane.

