Bicycle Advisory Committee Review of Protected Bicycle Lanes



Community Planning & Transportation Committee October 27, 2022

CPTC Asks BAC to Review Protected Bicycle Lanes

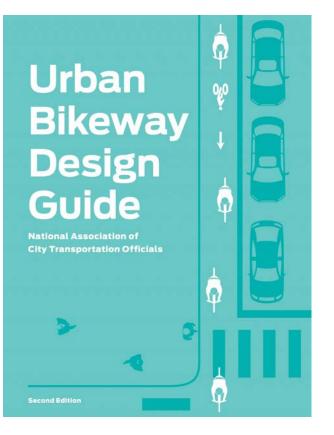
- This topic evolved from two different perspectives
- First, the widening of 12th Avenue SE between State Highway 9 and Cedar Lane Road creates some new challenges for bike and vehicle users crossing paths in ways not seen previously in Norman prompting the question whether Norman is ready for protected bike lanes
- Second, the concept of protected bike lanes is gaining popularity in certain parts of the country

CPTC Asks BAC to Review Protected Bicycle Lanes

- September 24, 2020, CPTC Meeting
- Norman currently has only one protected bike lane on West Rock Creek Road—concept is gaining in popularity in progressive urban settings
- Staff liaisons to the BAC were instructed to have the BAC review bicycle lanes throughout Norman looking at further protections that may be provided other than a painted line
- Presentation update at September 23, 2021, CPTC Meeting

Agenda for Standards Development

- Research methodology
- Types of protected bicycle lanes
- Signed routes
- Signed and marked routes
- Protected routes



City of Norman Bike Plan

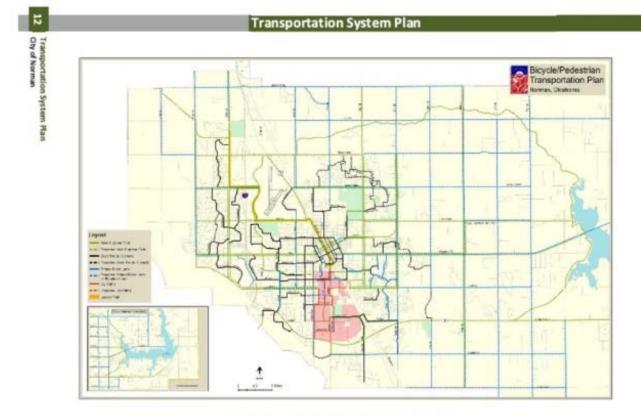


Figure 3.7 Norman Bicycle and Pedestrian Transportation Plan

Bicycling in Norman

- BAC collected opinions from the Norman cycling community regarding the perceptions and opinions of different types of lanes
- The general feeling and trend is towards bike lanes that somewhat protect the rider
- This can involve a buffer as in space between traffic and cyclists or a physical barrier

Bicycling in Norman (Continued)

- Lanes that are separated by flexible barriers feel less safe to riders if the bike lane does not provide adequate width
- Double lining does enhance the feel of separation and safety
- There are situations and certain locations where the flexible and non-flexible barriers and additional lane delineation through limited use of green paint can increase cyclist safety (examples will follow)

Bicycling in Norman (Continued)

- The BAC believes that the majority of bicycle lanes in Norman can and should be Designated Lanes with White Lines, White 3D Lines or Double Lines with hashed stripes if the setting allows and that the use of solid green bike lanes should be discontinued
- All lane designations would include signage and bicycle silhouettes on pavement

City bicycle routes can continue to be designated by signage



Recommendations

- The determination of the exact type of bicycle lane to recommend for a specific stretch of street or roadway will be done on a case by case basis
- Future decisions should be based on Adopted Standards, the current NORMAN Land Use and Transportation Plan, the pending update to the Engineering Design Criteria, Norman Street Traffic volumes, and records of vehicular-bicycle collisions



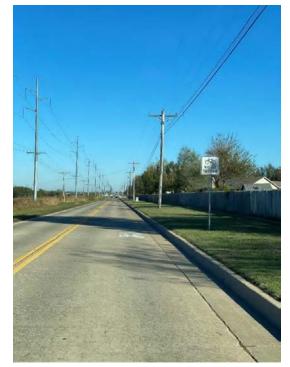


Signed Routes





Signed and Striped On-Street Routes



Left: Shared, signed route with Sharrows

Right: Separate green lane with white line and signs



Signed and Striped On-Street Routes



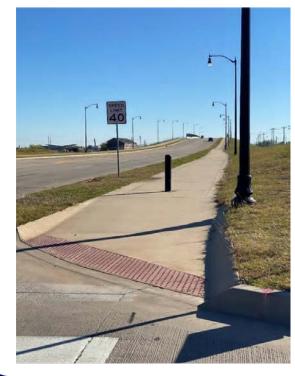
Above: Shared White Line route, signed, with Bicycle Symbols

Protected Bicycle Lanes

Right: Separate with Double and Hashed White Line and signs



Multimodal Paths (Off Street)



Left and Right: Examples of multimodal paths in Norman



Protected Bicycle Lane with 3D Stripe



3-D Lane Stripe – Conceptual – not currently in place but could have potential to provide additional perceptual separation for bike lane. Stripe would be normal white line with same size or half width black line on traffic side of bike lane

Protected Bicycle Lanes in the Region





Other types of Lanes currently in use in Regional Area. Separate Green Lane at intersections with White Line - Some intersections have Flexible Barriers as well.

Protected Bicycle Lanes in the Region



Other types of Lanes currently in use in Regional Area. Separate Lane with Flexible Barriers, Limited Green Marking, and Double Striping.

One More Protected Bicycle Lane Example

Right: Separate Lane protected by hard barrier – Not currently used in this area – example from internet







Recommendations

• Designated Lanes

- Separate with Double Striping
- Separate with White 3-D Line
- Separate with White Line
- Designated Lanes in area with increased motor vehicle bicycle conflict
 - Separate with Double White Line
- Designated Lanes in area with increased motor vehicle bicycle conflict at intersections
 - Separate with White Line and Green Surface Coating and barriers





Recommendations

- Designated Lanes in area with high motor vehicle bicycle conflict
 - Separate with White Line and Green Surface through conflict zone and barriers for most likely area of conflict
- Signs Only for low traffic volume Designated Bicycle Routes
 - Bicycle Routes designated by the City on many residential streets as well as section line roads will continue to be appropriate





Next Steps

 Gain acceptance of BAC recommendations from CPTC

 Attach BAC bicycle lane recommendations to the nearly complete update to the City's Engineering Design Criteria

QUESTIONS?

