Conway Western Arterial Loop

Bicycle and Pedestrian Design Recommendation

Conway Bicycle and Pedestrian Advisory Board

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Bicycle/Pedestrian Design Guidelines

The City of Conway Bicycle and Pedestrian Advisory Board (BPAB) submit the following design recommendations to the City of Conway, AR regarding the Conway Western Arterial Loop. It is the purpose of the BPAB board to advise the city on how to design roadways in such a way to encourage the use of walking and bicycling as modes of transportation. The Western Arterial Loop presents unique design challenges in this regard due to the design speed of the street, the expected traffic volumes, and the unknown nature of the development that will occur within the corridor. The design speed and traffic volume suggest that many bicyclists and pedestrians would prefer shared-use facilities separated from the roadway. However, as the area becomes crowded it becomes unsafe for pedestrians and cyclists to share pathways such as these. Given those considerations, the designs presented in this document stress the need for on-street bicycle facilities throughout the corridor. This allows cyclists who travel at higher speeds and are more comfortable sharing space with motor traffic to use the street for transportation. The design recommendations also call for a separated shared-use path where certain constraints can be met. This will encourage pedestrians and cyclists who are not comfortable sharing space with traffic to use the corridor for transportation.

The board is recommending three tiers of design possibilities for the corridor. The top tier represents the ideal approach and should be used whenever possible. The other tiers are listed to guide the city on how to best serve pedestrians and cyclists where the ideal design cannot be implemented for whatever reason. In addition to the designs themselves, the board is also recommending what sections of the corridor each design tier should be used. Again, the top tier should be considered the ideal and should be used whenever possible.

Design Considerations

Tier 1:

This is the ideal design recommended by the board. The other designs represent fallback plans in areas where this design is not feasible.

- On-street bike lane in each direction.
    - 5 feet wide.
    - Demarcated from traffic with 4-inch stripe.
    - Marked with bicycle symbol every 250 feet
    - Curb/gutter structure not included in width of bike lane.
- 10-foot multi-use path on one side of the road.
    - Separated from road by minimum 10-foot greenspace buffer.
    - Trees and bushes planted between path and road and outside of path, but no visual obstructions should exist between road and path within 100 feet of a crossing.

- Asphalt trail surface
- Yellow striped centerline to support 2-way traffic.
- Overhead lighting.
- No more than 4 vehicle crossings (side streets and driveways) per mile.
- Signage – Signs at each cross street should warn of multi-use path (i.e. pedestrian & bicycle) traffic
- Side street /driveway crossing design – the multiuse path and sidewalks should have designated crossings with crosswalks at all side streets.
- Sidewalks should be installed as development progresses on the side of the street opposite the multi-use path.

Tier 2:

To be used where space constraints do not allow a 10-foot buffer between the road and the path, but the 4 vehicle crossings per mile requirement can be met.

- On-street bike lane in each direction
  - 5 feet wide.
  - Demarcated from traffic with 4-inch stripe.
  - Marked with bicycle symbol every 250 feet
  - Curb/gutter structure not included in width of bike lane.
- 10-foot multi-use path on one side of the road.
  - Separated from road by 5-foot greenspace buffer or physical barrier.
  - Asphalt trail surface
  - Yellow striped centerline to support 2-way traffic.
  - Overhead lighting.
  - No more than 4 vehicle crossings (side streets and driveways) per mile.
  - Signage – Signs at each cross street should warn of multi-use path (i.e. pedestrian & bicycle) traffic
  - Side street /driveway crossing design – the multiuse path and sidewalks should have designated crossings with crosswalks at all side streets.
  - Sidewalks should be installed as development progresses on the side of the street opposite the multi-use path.

Tier 3:

To be used where space constraints or number of existing vehicle crossings prevents the multi-use path from being implemented. This tier eliminates the multi-use path, but retains a sidewalk.

- On-street bike lane in each direction
    - 5 feet wide.
    - Demarcated from traffic with 4-inch stripe.
    - Marked with bicycle symbol every 250 feet.
    - Curb/gutter structure not included in width of bike lane.
    - 5-foot sidewalk on each side of the road

Intersections and Bridges

Bike lanes should be implemented the entire length of the road including on bridges and through intersections. Major intersections should include a right-turn bay to the right of the bike lane. Bike lanes should not be merged into vehicle traffic lanes as they are on other streets in Conway. See Figure 1 below for the recommended design:

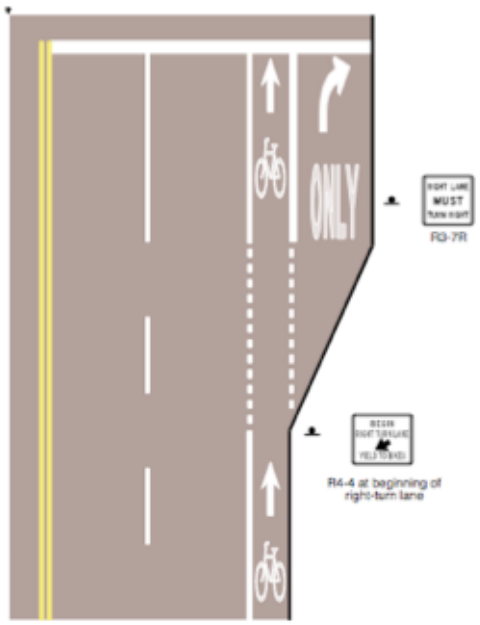

Figure 1: Recommended Intersection Design

The 10-foot buffer between the road and multi-use path is not required on bridges as long as a physical barrier exists between the road and the path.

Transitions

Transitions between different design tiers should be minimized. In places where the multi-use path must come to an end there should be crosswalks and signals to allow bicyclists to transition to the bike lanes on the other side of the street.

Sections

Section 1: Hwy 365 – Sturgis Rd. The board's understanding is that the already-acquired right-of-way will not support the Tier 1 design and that the number of path crossings is too high. In this section the Tier 3 design is acceptable.

Section 2: Sturgis Rd – Old Military Rd. This is the main undeveloped section of the corridor. This is also the section where the board would like to see the city focus on implementing the Tier 1 design throughout.

Section 3: Old Military Rd – College Ave. This section traverses some already-developed areas. The Tier 1 design would be preferable, but may not be possible in this area. The city should strive to implement Tier 2. The multi-use path should extend at least to the junction with the existing Tucker Creek Trail. It would be desirable for the multi-use path to extend beyond Tucker Creek as far as College Ave. North of College Ave. the number of vehicle crossings probably makes a multi-use path undesirable.

Section 4: College Ave. – Old Morrilton Hwy. This section goes through fairly dense existing development. It is likely necessary to implement Tier 3 in this section.

Section 5: North of Old Morrilton Hwy. The northernmost section of the road is undeveloped to date. It would be tempting to ignore cyclists in this section since the road is expected to end at I-40. However, the board encourages the city to strive for Tier 1 in this area, at least to provide a recreational alternative to residents. At a minimum, Tier 3 including bike lanes should be preserved through this corridor.