

Action Item for the EPTA Board of Directors
January 16, 2019

**EPTA policy for use of EPT name and logo on
on-road trail segments and inclusion on EPT maps**

Background:

One goal of the EPTA is to advocate for a system of non-motorized, multi-use trails, and local connectors using off-road routes as much as possible. But in certain areas an off-road route may not be feasible. Trail groups may decide to create share-the-road segments either in the interim or permanently. While these groups may place their trails where they choose, the EPTA must determine standards for if those segments will be permitted to carry the Erie to Pittsburgh Trail name and logo and if that segment will be included on the EPT maps. Consideration must be given to the liability of endorsement of these trail segments and the reputation of the Erie to Pittsburgh Trail as a corridor for users of all ages and capabilities.

Research has been conducted in many states concerning bicycle and pedestrian safety and the design of multi-modal transportation routes. Manuals are available with recommendations with design flexibilities that are meant to reduce vehicle/bike conflicts. While the proper bicycle facility is context dependent, the EPTA should adopt standards and requirements for design of on-road trail segments that will be included in the corridor.

Motion:

The EPTA should adopt the attached policy language requiring on-road trail segments to meet the included standards at minimum in order to carry the Erie to Pittsburgh Trail name and logo and be included on EPT trail maps.

Erie to Pittsburgh Trail Alliance On-road Trail Segment Policy

The Erie to Pittsburgh Trail Alliance (EPTA) advocates for a system of non-motorized, multi-use trails, and local connectors using off-road routes as much as possible. But in certain areas, an off-road route may not be feasible. While in most states a bicycle is considered a vehicle and a bicyclist may ride on any road unless specifically prohibited, a designated trail route should take into consideration safety and comfort factors for as many types of trail users as possible. EPTA has hereby set the criteria for consideration of on-road section designations as part of the Erie to Pittsburgh Trail. Those meeting all the criteria and notifying the EPTA Executive Committee will be approved for Erie to Pittsburgh Trail designation. The sections that request designation approval, but do not meet all the criteria may receive temporary approval with time limits. The temporary approval will be on a case by case basis and is not automatic.

The EPTA Board should review these criteria periodically to stay current with recommendations made by the listed and related professional organizations and agencies and evolve with technology, funding, and adopted principals. The EPTA must consider the liability of endorsing specific on-road routes and the reputation of the Erie to Pittsburgh Trail (EPT) as a corridor for users of all ages and capabilities.

Therefore, for any on-road trail segment to carry the EPT name and logo and to be included on EPT maps it must meet at minimum the following standards. It is recommended that the trail owner communicate with EPTA and refer to the listed documents during the planning stage. This is a policy document and the EPTA cannot give engineering advice. A professional engineer should be consulted to design each facility. The EPTA must apply this policy consistently throughout the corridor while also realizing that design will be context dependent.

Bicycle Level of Service (BLOS)—This model should be consulted and used during design. It is a model used to estimate bicyclists' average perception of the quality of service of a section of roadway. Attributes such as lane width, traffic volume, traffic speed, proportion of heavy vehicles, etc. are weighted and summed to give an overall score (BLOS), which is then mapped to an A-F rating (Sprinkle Consulting Inc., 2007). It has been adopted by the U.S. Highway Capacity Manual.

Speed and Volume

Motor vehicle operating speeds and the volumes on a roadway are key considerations in selecting the most appropriate bicycle and pedestrian facilities along a particular roadway. Generally speaking, the greater the speed and volume of motor vehicle traffic, the greater the amount of separation is desired for comfortable biking and walking facilities.

- EPTA prefers any on-road segment to be on a road with a speed limit of no more than 25 miles per hour. Others will be considered on a case-by-case basis. All on-road segments will be reviewed periodically.

The following types of facilities are preferred in descending order:

Bicycle Boulevard

The AASHTO Bike Guide describes bicycle boulevards as streets “that have been modified to accommodate through bicycle traffic and minimize motor traffic” (2012, p. 1-2)

- It should be designed for a maximum speed of 20 to 25 mi/h with the majority of motorists going slower.

Separated Bike Lanes

Separated bike lanes (SBLs), commonly known as cycle tracks or protected bike lanes, create a physical barrier to motorized traffic through the use of parked cars, posts, a landscaped buffer, or a raised curb.

Bike Lanes

Bike lanes are dedicated marked roadway space for bicyclists traffic. A bike lane is located directly adjacent to motor vehicle travel lanes and follows the same direction as motor vehicle traffic. Bike lanes need to be clearly marked at intersections and driveways to reduce conflicts with turning vehicles through increased awareness and to identify expected movements.

- The preferred minimum width of a bike lane is 6.5 ft (2.0 m) to allow for bicyclists to ride side-by-side or pass each other without leaving the bike lane.
- Absolute minimum bike lane width is 4 ft (1.2 m) when no curb and gutter is present or 5 ft (1.5 m) when adjacent to a curbface, guardrail, other vertical surface or on-street parking stalls (AASHTO Bike Guide 2012).
- When bike lanes are adjacent to parking, a greater width should be used to allow for the safe operation of bicycles outside the range of opening car doors.
- To increase comfort and safety, a painted buffer may also be used to provide additional space between parked cars or travel lanes.

Advisory Shoulder/Shoulder

Advisory shoulders create usable shoulders for bicyclists on a roadway that is otherwise too narrow to accommodate one. The shoulder is delineated by pavement marking and optional pavement color. Motorists may only enter the shoulder when no bicyclists are present and must overtake these users with caution due to potential oncoming traffic.

- The preferred width of the advisory shoulder space is 6 ft (2.0 m). Absolute minimum width is 4 ft (1.2 m) when no curb and gutter is present.
- A broken lane line used to delineate the advisory shoulder should consist of 3 ft (1.0 m) line segments and 6 ft (2.0 m) gaps.
- Advisory shoulders are a new treatment type in the United States and an approved Request to Experiment is required as detailed in Section 1A.10 of the MUTCD.

Share the road

When the posted speed of a street is 25 mph or less, such as traditional downtown areas, bike lanes are not required but highly recommended by EPTA. Bicyclists can ride in the travel lane with motor vehicles. The painted stripe can be omitted from the required minimum shoulder width to result in a shared lane of 14 foot width.

- EPTA may accept a share the road segment on an interim basis which will be reviewed periodically. The trail owner should make every effort to move the trail to a bike lane or off-road when possible.

Other Considerations

Drainage Inlet Grates

Drainage inlet grates should be designed with slots that will not catch a bicycle tire. Drainage inlets may be retrofitted or replaced to accomplish this.

Utility Covers

Utility covers should be made flush with a bikeway or moved outside of the bikeway.

Railroad Crossings

Where railroad crossings are not perpendicular to the roadway, the potential exists for a bicycle tire to get caught in the flangeway and for the bicycle to overturn. Reroute the bikeway to cross the tracks at an angle of at least 45 degrees. Alternatively, such crossings can be marked with a warning sign.

Rumble Strips

Ridges used to create rumble strips should be perpendicular to the bikeway and should be no greater than 3/4-inch in depth. There should be a clear area of at least four feet between the rumble strip and the outside edge of the shoulder (five feet where there is a guardrail, curb, or other obstacle.)

Bicycle Detection at Signals

Detection devices need to be placed in the path of a bicyclist (whether in a motor vehicle lane or bike lane) and be designed/calibrated to pick up the small amount of metal in bicycles. Bicycle pavement markings can assist bicyclists with locating the optimal place in the lane to be detected by the signal and be used to improve awareness of bicycle movements through the intersection.

Bicycle Pavement Marking Improvements

Different pavement markings like stripes, symbols, and color can be used to provide information to road users on where bicyclists can be expected. Examples include green lanes or boxes, striping bike lanes, and providing shared lane markings along roadways that guide bicyclists to where they should typically ride. In areas with a high potential for conflict, such as interchanges

with many turning vehicles and bicyclists traveling straight through, non-skid green pavement markings may be used to further improve conditions and awareness for bicyclists.

References

- AASHTO. (2012 4th Edition). *Guide for the development of bicycle facilities*. Washington, DC: American Association of State Highway and Transportation Officials.
- Brookshire, K., Sandt, L., Sundstrom, C., Thomas, L., & Blomberg, R. (2016). *Advancing pedestrian and bicyclist safety - A primer for highway safety professionals*. Washington, DC: National Highway Traffic Safety Administration.
- Federal Highway Administration, U. (2016). *Small town and rural multimodal networks*. Washington, DC: U.S. Department of Transportation.
- Transportation Research Board. (2018, December 17). *Highway Capacity Manual*. Retrieved from HCM 2010: <http://hcm.trb.org/?qr=1>

Other sources of information:

Design guidance for bicycle and pedestrian infrastructure is typically produced and updated by:

- American Association of State Highway and Transportation Officials (AASHTO)
- National Association of City Transportation Officials (NACTO)
- Institute of Transportation Engineers (ITE)
- U.S. Access Board
- Federal Highway Administration (FHWA)

Other design references that should be considered for review include:

- FHWA. (2013). *Bicycle and Pedestrian Facility Design Flexibility*. Washington, DC: U.S. Department of Transportation.
- FHWA. (2015). *Separated Bike Lane Planning and Design Guide*. Washington, DC: U.S. Department of Transportation.
- NACTO. (2013). *Urban Bikeway Design Guide 2nd Edition*. New York: National Association of City Transportation Officials.
- NACTO. (2103). *Urban Street Design Guide*. New York: National Association of City Transportation Officials.
- Pennsylvania, DOT. (2007). *Bicycle and Pedestrian Master Plan*. Harrisburg: Department of Transportation.

Other state examples to which to refer:

As of 2016, these five states—Delaware, Maryland, Minnesota, Oregon, and Washington—ranked in the top 10 of the League of American Bicyclists’ Bicycle Friendly States rankings.

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Adopted: _____, 2019