

RESOLUTION AND ORDER NO. RO 17-2  
EXHIBIT "A"

**BICYCLE FACILITIES FOR  
COUNTY-FUNDED CAPITAL ROAD IMPROVEMENT PROJECTS  
POLICY**

January 10, 2017

**Policy Statement**

*The Board of County Commissioners (Board) prefers separated or protected bicycle facilities on major County roads in appropriate situations.*

**Urban Areas:** *For all County-funded capital road improvement projects inside the Urban Growth Boundary, design staff shall consider bicycle facilities that provide: 1) physical separation; and/or 2) physical protection between bicyclists and motor vehicles. Examples of such bicycle facilities include:<sup>1</sup>*

- *Multi-use off-street path (one-way or two-way)*
- *Raised cycle track (one-way or two-way)*
- *Protected cycle track (one-way or two-way)*

**Rural Areas:** *For all County-funded capital road improvement projects on arterials and collectors outside the UGB, design staff shall consider potential bicycle facility improvements.*

**Policy Purpose**

This policy is adopted to:

1. Document the Board's preference for separated or protected bicycle facilities on County-funded capital road improvement projects in urban areas, when appropriate.
2. Establish a requirement for County staff to evaluate bicycle facilities on all County-funded capital road improvement projects. In urban areas, staff shall consider bicycle facilities that are:
  - a. physically separated from vehicular traffic, and/or
  - b. physically protected from vehicular traffic;
3. Establish criteria staff shall consider when evaluating the appropriateness of various bicycle facility types for County-funded capital projects; and
4. Memorialize a process for staff to prepare and present a bicycle facility alternatives analysis to the Board no later than the 30% design stage for capital projects.

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<sup>1</sup> Refer to bicycle facility definitions from the Washington County *Bicycle Facility Design Toolkit* at the end of this document.

## Background

In the County's Transportation System Plan (TSP), all urban arterial and collector roadways are designated as either:

- **Major Street Bikeways:** Roads where a six-foot bike lane or buffered bike lane is generally considered sufficient to accommodate cyclists.
- **Enhanced Major Street Bikeways:** Roads that have, or are planned to have, buffered bike lanes or cycle tracks on one or both sides of the road. This is based on land use context, access to transit service and roadway characteristics, which may include higher-traffic volumes, higher speeds and/or three or more vehicle travel lanes.

Rural arterial and collector roads should also be evaluated for potential bicycle improvements when capital improvement projects are planned.

Notwithstanding these TSP bikeway designations, the Board's preference is to provide bicycle facilities on major roads that best accommodate bicyclists of varying skills and comfort levels. In urban areas, facilities that provide physical separation and/or protection between bicyclists and motor vehicles should be incorporated into the design of County-funded capital projects whenever appropriate. The Board also understands, however, that separated or protected bicycle facilities may not be the most appropriate option for a specific capital project for a variety of reasons – including safety, funding limitations, right-of-way limitations, maintenance concerns, etc.

In December 2012, the Board accepted the [Bicycle Facility Design Toolkit](#) (Toolkit) prepared by the Department of Land Use & Transportation (LUT). The Toolkit supplements the Washington County Road Design Standards (Road Standards) by offering design guidance on a range of bicycle facility types, many of which are not addressed in the Road Standards. The Toolkit provides staff more options when designing capital projects. It also outlines a process and criteria staff may use when evaluating bicycle facility design options.

## Alternatives Analysis Review Process

LUT staff will follow these steps in the design of capital improvement projects:

1. Staff will prepare a bicycle facility alternatives analysis and staff recommendation for County-funded capital road improvement projects no later than the 30% design stage.
2. At a minimum, the alternatives analysis for urban roads shall include at least one bicycle facility that is:
  - a. physically separated from vehicular traffic, and/or
  - b. physically protected from vehicular traffic.
3. The alternatives analysis and staff recommendation will be presented to the Board at a work session. The alternatives analysis and staff recommendation will be made available to Board members for review at least seven days prior to the work session.
4. The Board will provide direction to staff regarding the preferred bicycle facility alternative.

### **Alternatives Analysis Requirements**

The alternatives analysis will evaluate at least two bicycle facility alternatives. In urban areas, at least one of the alternatives shall be a facility that provides physical separation and/or protection of bicyclists from vehicular traffic. The evaluation shall be consistent with the process outlined in the *Bicycle Facility Design Toolkit* (pages 9-15).

The alternatives analysis will also consider the following (as applicable):

1. Project location and context, including:
  - a. Urban or rural
  - b. Metro 2040 plan designation
  - c. Existing and future land uses
  - d. TSP Functional Classification
  - e. TSP Freight Designation
  - f. Role of subject roadway(s) in larger bicycle transportation network, including:
    - i. TSP Bikeway System Designation
    - ii. Designated bicycle route, such as a Scenic Bikeway
    - iii. Adjacent or nearby bicycle facilities – existing and planned
2. Cross-sections for the bicycle facility alternatives evaluated
3. Safety and function, including:
  - a. Number and frequency of bicycle-vehicular conflict points such as intersections, alleys and driveways within the project extents
  - b. Other conflict points (i.e. bus stops, rail crossings, etc.)
  - c. Sight distance
  - d. Need for bicycle traffic control devices (i.e. bicycle traffic signals)
4. Up-front and life-cycle cost considerations, including ongoing maintenance
5. Drainage considerations, including the number of inlet structures
6. Freight compatibility
7. Available project funding
8. Other agency preferences, including:
  - a. Applicable cities for projects located within one or more cities
  - b. ODOT (for state facilities)
  - c. Park district, if the bicycle facility will function as a component of a trail network

### **Bicycle Facility Types**

Refer to the descriptions of various bicycle facility types, from the *Washington County Bicycle Facility Design Toolkit*, on the next two pages.

## **Bicycle Facility Types**

(from the Bicycle Facility Design Toolkit)

### **Conventional Bike Lane**

*Designated exclusively for bicycle travel, bike lanes are separated from vehicle travel lanes with striping and pavement stencils. Bike lanes are most appropriate on arterial and collector streets where higher traffic volumes and speeds warrant greater separation. Bike lanes also increase safety and reduce wrong-way riding. This treatment is required on arterials and collectors when roads are newly constructed or reconstructed, per Washington County's existing Road Design Standards.*

### **Buffered Bike Lane**

*Buffered bike lanes are designed to increase the space between the bike lanes and the travel lane or parked cars. They typically incorporate a 2' to 3' wide painted buffer between the bike lane and vehicle travel lane. Buffered bike lanes allow motorists greater separation from bicyclists in the bike lane (as travel speeds increase greater separation is needed) and provide space for cyclists to pass one another without encroaching into the travel lane. Buffered bike lanes are not currently addressed in the Washington County Road Design Standards.*

### **Protected cycle track**

*Protected cycle tracks are on-street bikeway facilities that provide the safety and comfort of multi-use paths within the road right-of-way. This is accomplished by combining a painted buffer with a physical barrier such as flexible bollards, a landscaped buffer, or a parking lane. The added protection further separates motor vehicles and bicyclists where travel speeds and/or motor vehicle traffic volumes are high. This type of facility appeals to a wider range of bicycle users than a conventional bike lane. Protected cycle tracks are not currently addressed in the Washington County Road Design Standards.*

### **Raised cycle track**

*A raised cycle track is a grade separated cycle track. Commonly located above the adjacent travel lane and below the sidewalk, they can also be found at sidewalk grade. They provide many of the same benefits as a protected cycle track, but with the added bonus of allowing bicyclists to more easily move between the travel lane and bikeway facility. Steps must be taken to ensure that no lip is present at the juncture of the bikeway and roadway surface and that the slope is gentle (4:1). Raised cycle tracks are not currently addressed in the Washington County Road Design Standards.*

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## **Bicycle Facility Types**

(from the Bicycle Facility Design Toolkit)

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### **Two-way cycle track**

*Two-way cycle tracks allow for bicycle travel in two directions on the same side of the road. They share many of the same benefits and characteristics of one-way cycle tracks, but require additional design treatments at intersections due to the limited visibility of bicyclists riding behind parked cars or barriers. This is due to some bicyclists traveling in the opposite direction of travel, which may be confusing for motorists entering/exiting the roadway. Two-way cycle tracks are not currently addressed in the Washington County Road Design Standards.*

### **Multi-use off-street path**

*Multi-use paths serve bicyclists and pedestrians and provide additional width over a standard sidewalk. Public Works only constructs paths within the existing ROW (e.g., adjacent to roads). Paths constructed in other locations may provide transportation benefits, but would be constructed by the Parks Department. Paths constructed next to roads must have some type of vertical (e.g., curb or barrier) or horizontal (e.g., landscaped strip) buffer separating the path area from adjacent vehicle travel lanes. This treatment is allowed in the right-of-way under Washington County's existing Road Design Standards.*

Source: *Bicycle Facility Design Toolkit*, Washington County, December 2012.