

# A Case of Utilizing Results

## A New Guideline for the Creation of Safe and Comfortable Bicycle Use Environments

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### 1. Introduction

In November 2012, the Road Bureau of the Ministry of Land, Infrastructure, Transport and Tourism (MLIT) and the Traffic Bureau of the National Police Agency (NPA) issued the Guideline to the Creation of Safe and Comfortable Bicycle Use Environments (below called the "Guideline") to road managers (government managed roads, regional governments) and to prefectural police bureaus. The basic concept of the Guideline is that under the Road Traffic Law, "a bicycle is a vehicle, which in principle, travels on vehicle roads." Thus the Guideline shows items to be studied concerning the provision of road space permitting bicycles to travel safely and comfortably on vehicle roads.

NILIM has joined in making the Guideline together with the Road Bureau of the MLIT and the Traffic Bureau of the NPA on comparing and filing the standard related to the selection of the bicycle traveling space type in foreign countries, and on studying the countermeasure based on experiment in the NILIM and the problem filing in the bicycle traveling space creation model districts.

### 2. Points of the Guideline

The Guideline is composed of four view points such as "Planning," "Design," "Obeying Rules" and "Overall Initiatives".

The "Planning" describes procedures and study methods to be applied by regional authorities to enact bicycle network plans. And it also shows the concepts and yardsticks to be applied to select a form of improvement according to traffic conditions of network routes chosen by the plan (Refer to Fig.-1).

The "Design" presents concepts of design of bicycle traveling space on roads including intersections. Particularly for intersections, two plans such as mixed and separated passage of left turning automobiles and bicycles are introduced (Refer to Fig.-2).

### 3. Future schedule

The Guideline will be sequentially revised in response to technical knowledge obtained in the future and to revisions of legal standards etc., and the National Institute for Land and Infrastructure Management will also

	A: Roads where automobiles travel fast	B: Road other than A and C	C: Roads where automobiles travel slowly and the automobile traffic volume is low
Necessity for separation of bicycles and automobiles	Structural separation	Visual separation	Mixed
Type of Bicycle traveling space	Bicycle track	Bicycle lane	Mixed use on vehicle lane <small>As necessary, the road shoulder is colored, or belt-shaped road markings or pictograms are placed inside the vehicle lane on the left side.</small>
Criteria	Automobile speed higher than 50 km/h <small>For example, road with a speed limit of 60 km/h where speed restrictions are not enforced</small>	Road that is not covered by conditions A and C <small>For example, road where a speed limit of 50km/h is enforced, etc.</small>	Automobile speed of 40 km/h or less, and traffic volume of 4,000 or less

Fig.-1 How to choose a form of improvement according to traffic conditions

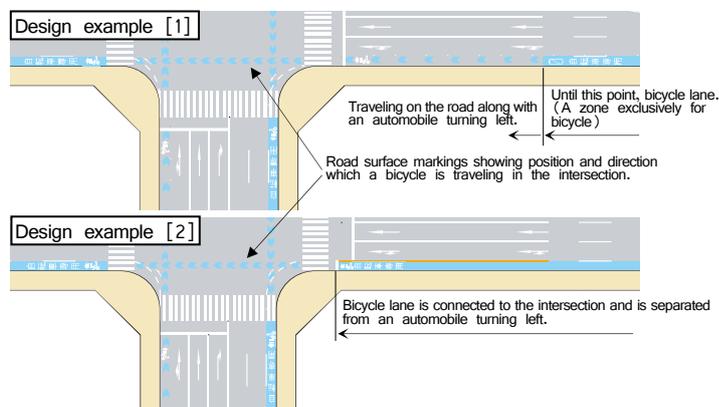


Fig.-2 Examples of Design of Bicycle Traveling Space at a Four-leg Intersection

conduct technical studies based on its application in regions throughout Japan.

#### [Reference]

- 1) MLIT Road Division HP : [http://www.mlit.go.jp/report/press/road01\\_hh\\_000300.html](http://www.mlit.go.jp/report/press/road01_hh_000300.html)
- 2) KOBAYASHI Hiroshi, YAMAMOTO Akira, KISHIDA Makoto, YOSHIDA Hidenori: Comparison with foreign countries on the planning for the selection of the bicycle traveling space type, Civil Engineering Journal, Feb. 2013
- 3) KIMURA Yasushi, HONDA Hajime, OKIMOTO Hiroto, TAKAMIYA Susumu: Study on the geometric structure for the bicycle track through the test on side, Japan Society of Civil Engineering, Proceedings of Infrastructure Planning Vol.46, 2012.11