

# THE URBAN TRANSPORTATION MONITOR

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## FHWA Launches New Website to Simplify Federal-aid Process

*Videos and Resource Links Will Provide Central Source of Information for Local Public Agencies*

The Federal Highway Administration (FHWA) has launched a new website designed to guide local public agencies (LPAs) through the federal aid process. A series of videos provides information on seven major topics: Federal-aid Program Overview, Civil Rights, Environment, Finance, Right-of-Way, Project Development, and Project Construction and Contract Administration.

The site, [Federal-aid Essentials for Local Public Agencies](#), was unveiled on August 27 at the American Public Works Association Congress in Anaheim, California. FHWA spokesman Doug Hecox says it's designed to consolidate Federal-aid information into one central information hub using state of the art technology and to make Federal-aid information easier to understand using the best available technology.

Hecox points out that more than two-thirds of the nation's four million-mile highway system is owned and operated at the local level by counties, cities and towns. These LPAs receive about \$7 billion annually in Federal-aid Highway Program funds. Hecox says that while some of the larger recipients are familiar with the workings of the system, many smaller agencies had a harder time finding their way because "accurate information about Federal-aid requirements pertaining to local roads was scattered across various Web sites or buried deep within thick manuals."

On the new website, users will find about 80 instructional videos the FHWA

describes as "brief, concise and to the point." All of the single-topic videos are less than 10 minutes long, and they strive to put the complex language of the Federal-aid Highway Program into "plain language" that's easy to understand.

Illustrations also help to tell the story.

By clicking on the Federal-aid Essentials Video Library tab, users can see at a glance all of the videos available under each of the main topics. For example, an

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## New Interactive Online Guide Available to Help Cities Design Better Bikeways

*Second Edition Offers More on Bicycle Boulevards and Green Lanes*

Urban planners who are trying to draw more bicyclists to city streets have a new tool at their disposal. The National Association of City Transportation Officials (NACTO) has released a second edition of its Urban Bikeway Design Guide, and U.S. Transportation Secretary Ray LaHood calls it "an extraordinary piece of work that's long overdue."

NACTO spokesman David Vega-Barachowitz says the new edition builds on the first "with additional guidance on bicycle boulevards, information on the application and installation of green-colored pavement for bike lanes and a series of revised, dynamic graphics that enhance the original content from the first edition." The Web version features an

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*Bike lane treatment at a freeway on-ramp in Austin, TX. (Photo: Courtesy of NACTO)*

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# New Guide Shares Information on Bicycle Sharing Programs Around the Country

*Bike Share Guide Discusses Keys to Success and Safety and Liability Issues*

Communities large and small have been turning to bike sharing as an alternative way for people to make short trips around town. Now, the Pedestrian and Bicycle Information Center (PBIC) at the University of North Carolina has teamed with Toole Design Group to put together a guide for those who might be thinking about starting a bike share program in their area.

PBIC Associate Director Laura Sandt says the guide, "Bike Sharing in The United States: State of the Practice and Guide to Implementation," came about because the Federal Highway Administration (FHWA) saw a need to provide "baseline data and recommendations for jurisdictions considering implementing new programs." The objectives of the guide are to provide an overview of the bike sharing concept, describe the steps necessary to begin a bike sharing program, document existing models and funding options, describe the metrics for monitoring and evaluating a program's success, and provide a 2012 baseline of existing bike share programs.

The guide defines bike sharing as "an innovative transportation program" that's ideal for short distance "point-to-point" trips. Riders who use bike share programs have the ability to pick up a bicycle at any self-serve bike station and return it to any bike station located in the system's service area.

In conducting the study, Sandt says researchers found there are more than 25 bike share programs already in place in the U.S., with new ones coming on line next spring. Cities don't have to be large to support a bike share plan. Sandt says the study found small systems can be successful, even at low densities. It helps to have a quality bike infrastructure in place, but Sandt says it's not necessary to an effective bike-sharing system.

Safety and liability issues are always a concern, and the guide does recommend that helmet use be highly encouraged. Crash rates for bike share users were found to be low overall, and theft has not been a major concern in U.S. systems, as it has in some European counterparts.

Among the keys to a successful bike share program is the need to approach bike

share feasibility analysis objectively. Sandt says gaining strong political and financial support is essential.

The study found that bike share stations work best in areas where there is a mix of land use between retail, office and residential. Bike share stations should be no more than a half-mile from each other to minimize walking distance to the stations, and in denser jurisdictions, that distance could be even shorter. The bike share stations that had the highest use tended to be located in higher density, walkable areas.

One of the challenges uncovered in the study is the ability of the bike share programs to serve low-income and minority populations, but Sandt says many programs are continuing to try different strategies. Other challenges include weather and the topography of the bicycling region. Extreme weather conditions can affect ridership and the life-cycle of the bicycles and stations. Slopes of more than four percent can be a major barrier for bicyclists and impact bicycle redistribution patterns.

Even though bicycles have been around for a long time, the guide recommends bike share programs take advantage of the newest technologies. It suggests communities drawing up bike share plans should con-

sider using mobile and web applications to enhance system functionality and the user's experience.

The guide credits Washington, D.C. for becoming the first major city to implement a bike share program when it started Smartbike DC in 2008. It provides some historical information on the growth of bike share programs and offers readers guidance in selecting a service area, choosing a business model, funding a program, purchasing equipment and ultimately implementing a bike share vision. The final chapter provides tips on how to promote and evaluate bike share systems.

A sampling of bike share programs that are already in place are profiled at the end of the guide. The profiles provide a quick reference to learn about the size of the programs and how they're funded and operated.

To download a free version of the 68-page guide, visit:

[www.bicyclinginfo.org/bikeshare](http://www.bicyclinginfo.org/bikeshare).

For more information, contact: Laura Sandt at (919) 962-2358 or [sandt@hsrc.unc.edu](mailto:sandt@hsrc.unc.edu).



*A bike share station in Boulder, CO.  
(Photo: Courtesy of the PBIC at the University of N. Carolina)*

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# California Lawmakers are Latest to Establish Rules for Open Road Testing of Autonomous Vehicles

*New Legislation Defines Driver-less Cars and Sets Standards for Cars and Drivers*

Lawmakers in California have voted overwhelmingly in favor of legislation that will pave the way for driver-less cars to be tested on public roadways in the state in future years. The state joins Nevada and Florida in providing legislation for this new generation of vehicles.

California's Senate Bill 1298, sponsored by Senator Alex Padilla, D-Pacoima, and signed by the governor, gives the state Department of Motor Vehicles (DMV) until January 1, 2015 to set standards for the testing of autonomous vehicles. It also sets definitions for autonomous cars and rules for their use, since California state codes previously had no classification for a vehicle that does not require a driver.

Under the measure, an "autonomous vehicle" is described as a vehicle using "autonomous technology," which is defined as technology "that has the capability to drive a vehicle without the active physical control or continuous monitoring by a human operator." An "operator" of an autonomous vehicle is defined as "the person who is seated in the driver's seat, or if there is no person in the driver's seat, causes the autonomous technology to engage."

The legislation prohibits autonomous vehicles from being operated on public roads until the DMV approves an application from the vehicle's manufacturer. It also requires that during testing, a driver must be seated in the vehicle's driver's seat and be able to take manual control of the vehicle. The driver is required to be properly licensed and insured for \$5 million.

Manufacturers who want to test their cars on California roads need to demonstrate that the autonomous mechanism can be easily disengaged by the driver and that the vehicle is equipped with a warning system to let the driver know if there's a problem with the technology. Vehicles also must have a means of capturing and storing autonomous technology sensor data for at least 30 seconds before a collision occurs. In addition, the vehicles must meet all Federal Motor Vehicle Safety Standards for

their model year, as well as state standards.

Prior to the start of 2015, the DMV must set requirements for how the cars and drivers will be screened for safety. The DMV will be required to hold public hearings on the adoption of any regulations that would allow the vehicles to be operated without a driver inside the vehicle.

Padilla, the bill's author, says that despite improvements in traffic safety, auto accidents remain a leading cause of death in the U.S, with the National Highway Traffic Safety Administration reporting 32,885 deaths from auto accidents in 2010. He notes the vast majority of traffic deaths and injuries are due to human error, and he hopes the advent of autonomous vehicles will help make roadways safer. Padilla says Hawaii, Oklahoma and Arizona also are considering legislation similar to his bill.

Last month, the consulting firm KPMG and the Center for Automotive Research (CAR) in Michigan released a report which predicts self-driving cars could be available for purchase as early as 2019. KPMG and CAR say a "crashless" car could offer many benefits beyond significant traffic safety improvements.

The report says travel times would become more dependable and people would become more productive as less time is spent sitting in traffic. There would be a reduced need for new infrastructure since the cars could travel more closely together and on narrower roads, with less need for guardrails and other highway safety features. There would be energy savings, too, since a crashless car could be made of lighter materials with less reinforced steel and safety devices, such as air bags.

KPMG and CAR say there are data challenges that will need to be met, such as protecting the technology in the autonomous vehicles from hacker or terrorist threats. There also are privacy concerns that will need to be addressed. A move to autonomous vehicles may also change the way people think about their cars and their need to own a private vehicle. The report envi-

sions a day when people can summon a car on demand, so there would be no need for a personal car. Imagine "Zipcars on steroids."

Google's autonomous vehicles, modified Prius cars, have already logged more than 200,000 miles in testing, and other automakers have their own autonomous vehicles in development. However, all are not happy with the latest legislation governing the vehicles.

The Alliance of Automobile Manufacturers, which represents 12 companies that produce 77 percent of the cars sold in the U.S., says the California measure does not go far enough. Spokesman Dan Gage says the industry supports the technology, but it was opposed to California's legislation because "it does not offer adequate liability protections for Original Equipment Manufacturers (OEMs) on vehicles that have been converted to autonomous vehicles. The recently-enacted Florida AV law provided the type of liability protections that we sought in the California bill."

Gage says that for many years, automakers have been developing the technologies that make autonomous vehicles possible. In fact, he says many of these innovations are available in vehicles at all price points on showroom floors today. As to when true driver-less cars will be available, Gage would say only that the day "may be closer than many probably realize."

For more information, visit: [http://www.leginfo.ca.gov/pub/11-12/bil/sen/sb\\_1251-1300/sb\\_1298\\_cfa\\_20120829\\_133916\\_sen\\_floor.html](http://www.leginfo.ca.gov/pub/11-12/bil/sen/sb_1251-1300/sb_1298_cfa_20120829_133916_sen_floor.html), <http://www.myfloridahouse.gov/Sections/Documents/loaddoc.aspx?FileName=h1207z1.THSS.DOCX&DocumentType=Analysis&BillNumber=1207&Session=2012> and or contact Dan Gage at [DGage@autoalliance.org](mailto:DGage@autoalliance.org).