

Americans with Disabilities Act (ADA) Transition Plans

by Frank Brewer

You may be hearing quite a bit about ADA Transition Plans in the context of state and federally funded transportation projects. However, how much do you know about these transition plans? Do you know who is required to have one? If your agency has a transition plan in place, does the plan satisfy ADA requirements? This article will address some of the basic elements of the ADA, including transition plans and self-evaluation process.

Title V, Section 504 of the 1973 Rehabilitation Act states that “No otherwise qualified individual with a disability in the United States...shall, solely by reason of his or her disability, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance...” Title II of the 1990 Americans with Disabilities Act extends this prohibition of discrimination on the basis of disability to all public services, programs, and facilities, regardless of funding sources. If an agency does not provide access to all programs and facilities, what should it do?



Cities and Counties that employ 50 or more persons (including Boards, Councils, and part-time employees) are required to name an ADA coordinator and to establish a grievance procedure that allows members of the public to address programs or facilities that may not provide sufficient access. The ADA coordinator is the point of contact for such complaints and will oversee the agency’s efforts to address concerns. Cities, Counties, and other public entities at or above the 50-employee threshold are also required to conduct a self-evaluation of all services, programs, and facilities. The resulting transition plan identifies ADA compliance issues, identifies changes which will bring these elements into compliance, and establishes a timeline to address these issues.

The transition plan should take the City or County well beyond curb cuts and ramps. It will address all public access areas, programs, and services provided or maintained by the agency. In basic terms, successful completion of a transition plan includes the following steps:

1. Designate an ADA Coordinator
2. Provide public notice about ADA requirements
3. Establish a grievance procedure
4. Develop internal standards, specifications, and details
5. Develop a self-evaluation and transition plan
6. Approve a schedule and budget to implement the transition plan
7. Monitor progress toward implementation of the transition plan

Did you know that your requests for federal or state funding could be denied if your agency does not have a current transition plan in place? Even if your agency does not maintain a single curb ramp or sidewalk, a transition plan may be required. Agencies that do not have an ADA

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From the Director

Well, summer is behind us and it appears that the temperatures will finally begin to catch up with the calendar. The fall colors haven't been bad this year, but I think that we all need some rain at this point. If I had completed this column a couple of weeks ago I could be commenting about the undefeated Volunteers and asking if this was another special year like 1998. Instead, injuries and turnovers have finally caught up with my beloved Vols. I'm still optimistic that they can close out the regular season on a high note, but the last big game (I can't bring myself to name the opponent) still stings.

We are talking about the Americans with Disabilities Act again in this issue of RoadTalk, and I suspect that we will continue to see more about the ADA in 2017. While the law itself has not changed since 2009, there is a renewed emphasis on enforcement and compliance. Many public agencies worked very hard to develop transition plans and implement changes to achieve compliance after the law's initial passage in 1990. However, time and other priorities have pushed these issues to the back burner, leaving those agencies vulnerable to lawsuits or enforcement actions.

TTAP is offering a one-day "ADA Self-Evaluations/ Transition Plans and Overview of Elements of Public Right-of-Way Accessibility" workshop in November to help our local transportation officials get back up to speed on this important topic. Response to this workshop has been very strong and all three locations (Jackson, Oak Ridge, and Nashville) have filled quickly. We may schedule more dates for this workshop in 2017 if demand exceeds the number of available seats.

Finally, I will be attending the EDC-4 Southeast Regional Summit in December to learn more about the 11 innovations that will be featured in the fourth round of FHWA's Every Day Counts program. Several of these innovations, including Automated Traffic Signal Performance Measures (ATSPMs), Community Connections, Data-Driven Safety Analysis (DDSA), Pavement Preservation, and Safe Transportation for Every Pedestrian (STEP), offer new technologies and best practices to help local agencies improve safety, increase mobility, and maximize the effectiveness of roadway maintenance budgets. Some of these innovations will be subject of upcoming EDC Exchange webinars. Watch future issues of RoadTalk and your email inbox for more information about these EDC-4 innovations.

That's all for now. Please let us know if there is anything that TTAP can do to assist you.



coordinator, a grievance policy, or a valid transition plan should start taking steps right away to ensure that they will not lose out on future funding opportunities. Even if you have a plan on file, remember that it is not a “file and forget” proposition. You must take steps to successfully address the issues that were identified in the self-evaluation process.

Developing an ADA transition plan may not be simple, but help is available. TTAP will be offering one-day training workshops on ***Americans with Disabilities Act (ADA) Self-Evaluations/Transition Plans and Overview of Elements of Public Right-of-Way Accessibility***. These workshops will be in Jackson (November 14), Oak Ridge (November 16), and Nashville (November 17). You will be able to find additional information on these and other workshops on the TTAP website at <http://ttap.utk.edu/training/course-calendar.php>.

Online and additional ADA Resources

- TDOT ADA Coordinator: Margaret Zeman Mahler, Margaret.Z.Mahler@tn.gov
- ADA Best Practices Tool Kit for State and Local Governments, <https://www.ada.gov/pcatoolkit/toolkitmain.htm>
- ADA Update: A Primer for State and Local Governments, https://www.ada.gov/regs2010/titleII_2010/title_ii_primer.html
- FHWA Office of Civil Rights: ADA/Section 504, <https://www.fhwa.dot.gov/civilrights/programs/ada.cfm>
- “An Overview of the Americans with Disabilities Act,” <https://adata.org/factsheet/ADA-overview>

FHWA Issues Interim Approval for the Use of “Bicycle Boxes”

On October 12 FHWA issued an interim approval for the optional use of intersection bicycle boxes. This interim approval allows for the provisional use of bicycle boxes pending the official rulemaking process that will add these optional traffic control devices to the Manual on Uniform Traffic Control Devices (MUTCD).

Background: With an increasing number of bicycle lanes marked on the curb side of streets, the Federal Highway Administration (FHWA) has been requested to provide traffic control devices to facilitate bicyclists positioned to the right side of general-use travel lanes to enter the center of the general-use lanes at the approach to a signalized intersection.

The intersection bicycle box is a designated area on the approach to a signalized intersection, between an advance stop line and the intersection stop line, intended to provide bicycles a space in which to wait in front of stopped motor vehicles during the red signal phase so that they are more visible to motorists at the start of the green signal phase. Positioning bicyclists in the center of the appropriate lane allows them to turn from a location where they are more visible to surrounding traffic, can increase the visibility of stopped bicycle traffic at an intersection, can reduce conflicts between bicycles and motor vehicles, can help mitigate intersection right-turn (“right-hook”) conflicts, and can help group bicycles together to clear intersections more quickly.

FHWA Evaluation of Experimental Results: FHWA’s Office of Transportation Operations has reviewed the available data and considers the experimental bicycle box to be satisfactorily successful for the applications that were tested. Positive operational effects have been documented in the experiments after the installation of bicycle boxes, including:

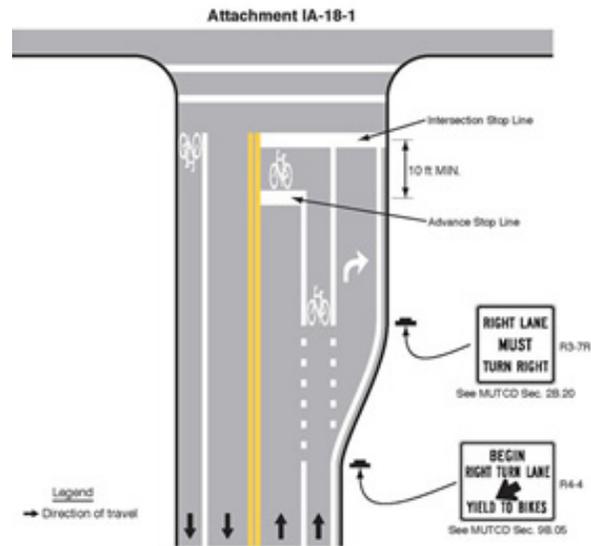
- Reductions in the number of conflicts between bicyclists and turning drivers at the study intersections;
- Reductions in the number of avoidance maneuvers by both bicyclists and motorists;
- Reductions in the number of bicycles and motor vehicles encroaching into pedestrian crosswalks when stopped at an intersection;
- Road-user surveys and observations in multiple experiments that showed that motorists and bicyclists understood the purpose and proper usage of the bicycle box.

The design of the intersection bicycle box is not proprietary and can be used by any jurisdiction that requests and obtains Interim Approval from the FHWA to use bicycle boxes in accordance with Paragraphs 14 through 22 of Section 1A.10 of the MUTCD. FHWA believes that the intersection bicycle box as detailed in this memorandum has a low risk of safety or operational concerns.

This Interim Approval does not create a new mandate compelling the use of intersection bicycle boxes, but will allow agencies to install intersection bicycle boxes, pending official rulemaking revising the MUTCD, to facilitate more efficient operations at intersections. Interim Approval of a provisional device typically results in its inclusion in a future Notice of Proposed Amendments to revise the MUTCD. However, this Interim Approval does not guarantee adoption of the provisional device, either in whole or in part, in any future rulemaking that revises the MUTCD.

Conditions of Interim Approval: FHWA will grant permission for the optional use of intersection bicycle boxes under this Interim Approval to any jurisdiction that submits a written request to the Office of Transportation Operations. Coordination with TDOT’s State Traffic Engineer is recommended. Jurisdictions seeking permission to use intersection bicycle boxes under this Interim Approval must agree to:

- Comply with the technical conditions detailed below;
 - Maintain an inventory list of all locations where bicycle boxes are installed;
 - Restore the site(s) of the interim approval to a condition that complies with the provisions in this Manual within 3 months following the issuance of a Final Rule on this traffic control device; and
 - Terminate use of the device or application installed under the interim approval at any time that it determines significant safety concerns are directly or indirectly attributable to the device or application. The FHWA Office of Transportation Operations has the right to terminate the interim approval at any time if there is an indication of safety concerns.
1. **General Conditions:** The use of bicycle boxes is optional. However, if an agency opts to use bicycle boxes under this Interim Approval, such use shall be limited to signalized intersections. The design of the bicycle box shall comply with the design conditions provided below.
 2. **Design of Intersection Bicycle Boxes:** The design of the bicycle box (shall comply with the following provisions:
 - a. A bicycle box shall be formed by an advance stop line placed at least 10 feet in advance of the intersection stop line.
 - b. At least one bicycle symbol shall be placed within a bicycle box.



- c. Where a bicycle box is provided across multiple lanes of an approach, countdown pedestrian signals (see Section 4E.07 of the 2009 MUTCD) shall be provided for the crosswalk across the approach on which the bicycle box is located to inform bicyclists whether there is adequate time remaining to cross to an adjacent lane before the onset of the green signal phase for that approach.
- d. Turns on red shall be prohibited from the approach where a bicycle box is placed using a NO TURN ON RED (R10-11 series) sign.
- e. At least 50 feet of bicycle lane should be provided on the approach to a bicycle box so bicyclists will not need to ride between lanes to enter the bicycle box.
- f. A STOP HERE ON RED (R10-6 or R10-6a) sign should be provided at the advance stop line defining the bicycle box with an EXCEPT BICYCLES (R3-7bP) word legend plaque below.
- g. Green-colored pavement (see Interim Approval No. 14) may be used within a bicycle box and the approach bicycle lane, where one is provided. A separate request for Interim Approval for green-colored pavement is required if the agency has not already received such an approval.

For more information on bicycle boxes, please visit the FHWA Bicycle and Pedestrian Program website at https://www.fhwa.dot.gov/environment/bicycle_pedestrian/guidance/mutcd/bicycle_box.cfm.

Unsignalized Intersection Improvement Guide (UIIG)

by Airton Kohls (Source:ITE)

I was looking for information on unsignalized intersections and came across this website hosted by the Institute of Transportation Engineers (ITE) under the sponsorship of the Federal Highway Administration (FHWA). It is a great place to start if your agency is looking for help to improve the safety, mobility, and accessibility at unsignalized intersections. Please check the Toolkit section. There are 75 different treatments that can be explored by agencies to improve conditions on unsignalized intersections. Here is the website: <http://www.ite.org/uiig/treatmentlist.asp> and here is a little background on the reasons for ITE to develop the website.

From 2010 to 2012, more than 70 percent of all intersection-related fatal crashes nationwide involved unsignalized intersections. These accounted for approximately one of every six fatal crashes on U.S. roadways.

As such, and because the vast majority of intersections in the U.S. are unsignalized, it is vital that state and local transportation agencies consider how their design and management practices can better address safety performance, operations, and access for all users at these types of intersections.

The majority of unsignalized intersections are owned and operated by local agencies. Many smaller jurisdictions do not have professional traffic engineers on staff but must frequently make decisions on safety treatments and enhancements at unsignalized intersections. These agencies need practical guidance to assist them in arriving at and justifying these decisions to policymakers and the public.

The UIIG has been developed to address this need. It is prepared to primarily aid local agency practitioners

in selecting design, operational, maintenance, enforcement, and other types of treatments to improve the safety, mobility, and accessibility of all users at unsignalized intersections. It is designed under the assumption that an unsignalized intersection (or group of unsignalized intersections) has been identified as having a problem related to traffic safety, operations, or access. The UIIG assists the user in confirming there is indeed a problem and identifying the type and potential cause of the problem, and then offers possible treatments—also identified as countermeasures or strategies—that address the problem. The selection of the desirable treatment for implementation is to be determined by the agency with input from and review by the affected stakeholders within the community.

The UIIG's primary audience is the agency (or individual) responsible for the roads within a local government jurisdiction, especially those agencies lacking staff with a formal education in highway and traffic engineering principles. However, even trained staff from state and local highway agencies may find this Guide helpful as they address various problems at their unsignalized intersections.



The intersection just beyond the crest of this hill is not visible to approaching motorists. Source: VHB.



Intersection sight distance is restricted by an embankment. Source: VHB



Lack of pavement markings to guide conflicting movements within median crossover. Source: VHB

Crack Treatments for Asphalt Pavements – Best Practices

by Airton Kohls (Source: NCHRP Report 784 – Best Practices for Crack Treatments for Asphalt Pavements)

This NCHRP Report released in 2014 points to the pavement maintenance techniques known as crack sealing and crack filling. Crack sealing is generally performed on “working” cracks, e.g., cracks that are more than 1/8” in the summer and significantly larger in the winter. However, crack sealing can be used for any crack treatment operation. Crack filling is generally performed on cracks that do not open and close due to environmental conditions. Treating cracks in asphalt pavements is a major part of every maintenance engineer’s work. The objective of any crack treatment is to minimize the intrusion of water into underlying layers of the pavement structure. Such water infiltrates the base layers of the pavement and may lead to pavement structural failures.

FHWA describes the following steps in a crack treatment program:

1. Obtain and review construction and maintenance records. This includes determination of the pavement age, design, repairs done to date, etc.
2. Perform a pavement crack survey. Record the distress types present, the amount of distress, and the severity of distress.
3. Determine the appropriate type of maintenance for the cracked pavement based on the density and condition of cracks.
 - a. A pavement surface treatment is appropriate for a pavement with high density of cracks that have moderate to no crack edge deterioration.
 - b. A crack treatment is proper for a pavement with moderate density of cracks that have moderate to no crack edge deterioration.
 - c. A crack repair is necessary for pavements with moderate density of cracks that have a high level of crack edge deterioration.
4. For crack treatment, determine whether cracks should be sealed or filled.
 - a. Cracks with significant annual horizontal movement (“working” cracks) should have a crack sealing treatment.
 - b. Cracks with little annual horizontal movement (“nonworking” cracks) should have a crack filling treatment.
5. Select materials and procedures for the crack treatment operation based on environmental, equipment, personnel, and cost-effectiveness considerations.

6. Acquire materials and equipment to perform the work.
7. Conduct and inspect the crack treatment operation.
8. Periodically evaluate treatment performance.

The NCHRP Report 784 presents a discussion on best practices for crack treatments in Chapter 4 and details important issues like climatic conditions during sealant applications, crack configurations, crack preparation, crack cleaning, material preparation, sealant installation and safety.

Climatic Conditions

The environmental conditions at the time of sealant placement have a significant impact on the performance of the sealant. Typically the temperature should be between 40°F and 70°F for both crack sealing and crack filling. The following weather considerations should also be observed:

- Temperature of the roadway surface should be 35°F and rising.
- Humidity should be 50% or lower. High humidity may reduce adhesion of the sealant to the crack edges. Excess moisture can be observed as small bubbles forming in the sealant.
- Wind may be a friend or a foe. A gentle wind can help to cool the sealant more quickly, minimizing sealant tracking issues. However, wind can also cause problems when cleaning the cracks, with the potential for flying debris. Cold winds will increase the melter heating time.
- Rain is cause for immediate shutdown of the crack treatment operation. If an unexpected shower occurs, any crack that has been cleaned and dried must be re-evaluated for proper conditions.

Seasonal Impact on Sealing Operations

When sealing in the winter, the crack will be at its maximum width, as shown in the first row of the graphic below. In the other seasons, the crack reduces in size and squeezes the sealer out of the reservoir. The center image of the middle row below illustrates sealing in the spring/autumn. The crack is at a “middle” size and will have less deformation of

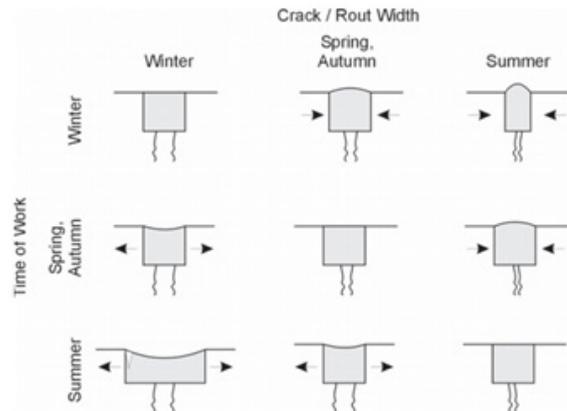
continued on page 7

the sealant during cold and hot temperatures. The bottom images demonstrate that if the crack is filled in the summer when the crack is at its smallest size, extreme stresses will be induced on the sealant during the winter, potentially leading to cohesive failure.

Troubleshooting Crack Treatment Issues

For most construction operations, inspection of the work performed is an integral part of the construction process. Inspection of the crack treatment installation is important regardless of the personnel performing the work (contracted out or in-house personnel). Montana DOT published the Crack Treatment Troubleshooting guide.

For additional information on “Best Practices for Crack Treatments for Asphalt Pavements” go to: <https://www.nap.edu/catalog/22314/best-practices-for-crack-treatments-for-asphalt-pavements>



Seasonal Impact on Sealing Operations (Source: Masson, Boudreau, and Girard)

Problem Encountered	Possible Causes	Possible Solutions
Bubbles in Sealant	Damaged backer rod	Change backer rod installation method or rod diameter
	Wrong backer rod	Use proper backer rod for hot-poured sealants
	Moisture in crack	Dry reservoir
	Grass or weeds in crack	
	Bubbles in melter	Add sealant
		Reduce agitator speed
	Moisture present	Slowly heat to evaporate water
Sealant is deeply sunken in reservoir	Air trapped by sealant	Fill reservoir from bottom
	Crack is underfilled	Use proper sealant volume
	Rod is slipping into crack	Use proper rod diameter
Sealant surface is not consistent	No rod present	
	Operator control is poor	Use nozzle with depth control plate
	Operator movement is uneven	Use wand with shutoff at nozzle
	Reservoir width/depth is variable	Use an experienced operator
Sealant not sticking to routed reservoir walls	Inconsistent material temperature	
	Reservoir walls are not clean	Remove all contaminants
	Moisture on walls from rain, dew, or condensation	Wait for pavement to dry
		Use hot air lance
		Use compressor with moisture trap
	Sealant temperature too low	Maintain recommended sealant temperature
Sealant remains tacky after installation	Pavement temperature too low	Wait until it warms up
	Incompatibility of sealant and asphalt mix	Use proper formulation
	Melter is contaminated with heat transfer oil, solvent, or other sealant	Empty and clean melter
	Sealant has been overheated or heated too long	Empty melter and replace with fresh sealant
		Check melter temperature regularly

Montana DOT - Crack Treatment Troubleshooting guide

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1. Please send me more information on the following articles mentioned in this newsletter.

2. Please list any additional training workshops you would be interested in attending.

3. Please list any other ideas or suggestions on how TTAP could assist you.

4. Please list your name and organization to verify for TTAP's mailing list.

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