





Complete Streets
Policy Implementation

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Table of Contents

Complete Streets Policy Implementation 2

Planning for implementation 4

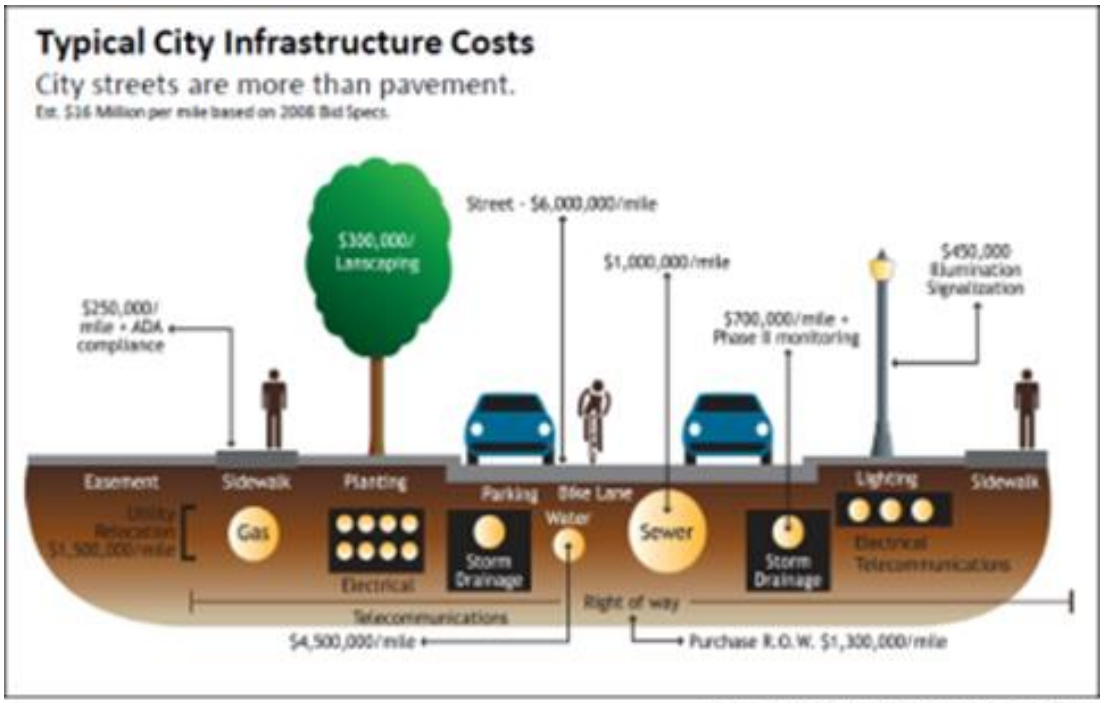
Changing processes and procedures 5

Reviewing and updating design guidance 10

Offering training and educational activities 11

Complete Streets Policy Implementation

To successfully implement Complete Streets policies, focus must shift to the inner workings of the primary transportation agency and partner agencies or departments. The overarching vision and goals may have been articulated in a Complete Streets policy, but the day-to-day decisions made in funding, planning, designing, maintaining, and operating a transportation network should be reviewed and revised to support that Complete Streets vision.



While this Toolkit does not go into detail on funding sources, cost information, and budgeting for transportation projects[1], it is important for local governments to develop Complete Streets

[1] A good source of information on federal **funding sources** for bicycle and pedestrian projects is available on FHWA's Bicycle and Pedestrian Program webpage, at http://www.fhwa.dot.gov/environment/bicycle_pedestrian/funding/funding_opportunities.cfm. In addition, Advocacy Advance, a partnership of the Alliance for Biking and Walking and the League of American Bicyclists, has published a "Bicycle and Pedestrian Federal Funding Resources List", available at http://www.advocacyadvance.org/site_images/content/Advocacy_Advance_Federal_Funding_Resource_List.pdf. Advocacy Advance recently published a report entitled, "How Communities are Paying for Innovative On-Street Bicycle Infrastructure," available at http://www.advocacyadvance.org/docs/PayingForInnovativeInfrastructure.pdf. Another source of information and ideas is a paper by advocate Mark Fenton, called "How Do We Pay for Sidewalks (and Other Infrastructure)?" at http://www.markfenton.com/resources/SidewalkFundingSummryFenton.pdf. More locally, the Kane/Kendall Council of Mayors recently developed a memorandum that summarizes major funding sources for bicycle and pedestrian infrastructure in Illinois, available at http://www.co.kane.il.us/dot/COM/BikePed/BikePed_Funding_2014.pdf.

policies and processes that are aligned with, institutionalize, and require routine accommodation of pedestrian, bicyclists, and transit riders (when needed) on all new construction and redevelopment or repair projects. Having both a Complete Streets policy and supplementary plans to guide implementation can help communities succeed in obtaining grant funding for specific projects.

Five main types of activities are necessary to reorient a transportation agency's work to fully and consistently consider the safety of all users.

1. **Plan for implementation:** Assessing current procedures and activities and plan for the full implementation of Complete Streets. Ensure that all relevant staff are aware of the new policy and how it is expected to impact their day-to-day decision making and workflow.
2. **Change procedure and process:** Update plans and processes used in transportation decision-making and create new ones if necessary. Creating of bicycle, pedestrian, transit access, safe routes to school, and/or active transportation plans is especially important.
3. **Review and update design guidance:** Update or adopt new design guidance and standards to reflect current best practices in providing multimodal mobility.
4. **Offer training and educational opportunities:** Provide ongoing support to transportation staff and consultants, other relevant agency staff, community leaders, and the general public so that they understand the Complete Streets approach, the new processes and partnerships it requires, and the potential new outcomes from the transportation system.
5. **Measure performance:** Create or modify existing metrics to measure success in accommodating all users on the project and network levels.

Regarding information on the estimated typical costs for pedestrian and bicycle infrastructure improvements, PBIC, in 2013, produces a report/tool called, "Costs for Pedestrian and Bicyclist Infrastructure Improvements: A Resource for Researchers, Engineers, Planners, and the General Public." This tool consists of a report and associated database (MS Excel file) of project cost information and calculations. The tool was developed "to provide meaningful estimates of infrastructure costs by collecting up-to-date cost information for pedestrian and bicycle treatments from states and cities across the country." Tables give the lowest costs, the highest costs, the median, and the average costs for 77 different treatment or infrastructure types, from over 1,700 cost observations. The report is available at http://katana.hsrc.unc.edu/cms/downloads/Countermeasure%20Costs_Report_Nov2013.pdf. A shorter summary with sample cost information can be found at http://www.pedbikeinfo.org/data/library/details.cfm?id=4877.

Planning for implementation

Common activities:

- Designate a lead person or agency to oversee implementation.
- Create broad based committees to oversee the process or make project-level decisions.
- Write a formal implementation plan.
- Require public annual reports that include Complete Streets progress.
- Conduct an inventory of documents that need to be changed to bring them in alignment with a Complete Streets approach.

An effective implementation process identifies the systems, routines, and assumptions in current decision-making. This toolkit includes a sample policy implementation plan that begins with an audit of documents, procedures and processes. The audit also will help identify the departments, positions or outside partners who use those tools.

Create a plan of action

A formal implementation plan can continue the momentum of the policy adoption campaign by engaging the many stakeholders in the shift to Complete Streets implementation. Civil servants and appointed leadership across the agency or local government should participate in developing the plan with encouragement and help from an inclusive group of relevant agencies, community organizations, and elected officials. An implementation plan assesses current practices, identifies necessary changes, assigns responsibility for making those changes, and creates estimated timelines for action. The community can use the resulting document as a tool to communicate its work with other agencies, elected leaders, and the public.

Establish an oversight entity

A person or committee should lead implementation efforts and regularly report on progress. There are several possible places to lodge this responsibility:

- An *internal committee,* with representation from multiple departments within an agency, as well as other local departments such as public health, planning, and economic development.
- An *external* committee that includes representatives from local advocacy and interest groups (such as older adults, disability groups, or bicycle and pedestrian advocates) in addition to representation from municipal agencies.
- An *existing commission or task force*, such as a bicycle and pedestrian advisory council or environment board.

Changing processes and procedures

Common activities:

- Use new committees or regular interdepartmental meetings to consider project-level decisions on multimodal consideration.
- Create project-level checklists to ensure planners and engineers are taking the needs of all users into account
- Define a process for exempting projects from Complete Streets requirements.
- Update or adopt new bike, pedestrian, transportation systems, and comprehensive plans that support development of a network of Complete Streets.
- Change project selection criteria to award points for multimodal accommodation.
- Change maintenance and operations procedures to identify opportunities to adjust road design and signal timing during regular activities.
- Create new project development systems.

This step is crucial to the successful implementation of a Complete Streets policy. To change processes, implementing agencies must first review the documents, rules, procedures, and habits that have typically guided them. Facilities and policies for bicycling, walking, and public transportation sometimes are not included in plans, codes, manuals, and other guiding documents and they should be added. Completing an audit of these procedures, processes, and documents is a good way to systematically identify barriers and new opportunities.

Relevant municipal plans relating to transportation typically include:

- Sections of a General or Comprehensive Plan
- Transportation Plan
- Major Street or Thoroughfare Plan
- Bicycle and/or Pedestrian Plan
- Active Transportation Plan
- Safe Routes to School Plan

In addition to these and other plan documents, local ordinances, codes, standards, and regulations may also need to be reviewed and revised to support Complete Streets principles and goals. Approval and project review processes should also be reviewed to ensure that they adhere to and advance Complete Streets principles. The review processes are often different for different types of projects or for projects that originate from different sources. For example, projects undertaken by the municipality through their CIP, work program, or by other means may be subject to their own review process; projects initiated by private developers may have another review process altogether; while projects originating with other agencies – such as IDOT, county departments of transportation, park districts, or schools may have their own review and approval processes.

Communities working to implement a Complete Streets policy should take steps to ensure that design and procedure changes apply to all types of roadway and transportation projects, including:

- New construction
- Retrofitting/reconstruction
- Repair
- Resurfacing/restoration/rehabilitation
- Bridges
- Privately built roads
- Master planned neighborhoods and planned unit developments
- Transit

Implementing Complete Streets successfully requires inclusive decision-making processes. This entails bringing together departments and agencies that may not have collaborated closely in the past, as well as engaging with community organizations and residents in a meaningful and lasting way.

Other plans and procedures

Many municipalities produce various plans and documents (or have procedures and protocols in place) that can help – or hinder – implementation of Complete Streets. These plans and procedures, might relate to utility provision or maintenance, repaving, urban design, community health, senior populations, community policing and traffic safety, urban forestry, green space, or sustainability. A community's long-range planning documents can influence surface transportation—even when they are not explicitly transportation-focused. They are another opportunity to make walking and bicycling safer, more convenient, or more comfortable. Such plans and procedures should be consistent with and support Complete Streets goals and policy recommendations.[2]

Development review, land use, and parking

Land use planning and transportation decisions should reinforce each other, so coordination between the two is essential. The Design Concepts chapter of this toolkit, particularly the sections on Context Zones and Roadway Typologies, highlights the importance of these connections. In land use planning, regulatory documents such as zoning and subdivision ordinances, parking requirements, and design guidelines – along with the review of development proposals, site plans, and subdivisions plats – define the physical or land-use context within which streets are planned and constructed and directly influence the transportation network.

Subdivision codes that apply to private development have the ability to influence Complete Streets implementation. As part of most approval processes, developers must conduct traffic-impact studies and then mitigate the impact of new traffic. The focus of the initial studies and the mitigation measures required typically relate to automobile travel alone, without

[2] ChangeLab Solutions has published "Model Comprehensive Plan Language on Complete Streets." It is available at http://changelabsolutions.org/publications/comp-plan-language-cs.

consideration of other travel modes. This process can result in automobile-oriented streets near schools and senior centers, where the developer only funds the automobile facilities. The local community is left with "incomplete" streets, which must be retrofitted to accommodate other users. Codifying the Complete Streets approach in subdivision and other regulatory documents means that each new development will support community-wide goals for safe, multimodal transportation.[3]

Parking management is also integral to supporting effective multimodal planning and design. A community-wide survey of parking supply and usage can be instrumental in implementing a Complete Streets policy. CMAP's "Parking Strategies to Support Livable Communities" has detailed information on assessing and reconsidering parking needs.[4]

Project selection, prioritization, and funding

How a community chooses, prioritizes, and funds transportation projects is another area that should be examined for its effect on Complete Streets implementation. Processes that are in place for making these decisions may need to be adjusted to help ensure that the goal of Complete Streets is achieved.

At a minimum, communities should coordinate mode-specific plans that address different means of travel. Some communities with mode-specific plans have developed street prioritization maps, which bring together all their modal plans to show opportunities for work across the overlapping networks. This "layered network" approach can encourage planners and designers to consider the function of the network as a whole. Making connectivity and gap-filling a priority within the overall network can help ensure that small improvements are made on every project, not just on larger projects along major routes identified in plans.

Another strategy that some communities and agencies have developed is to employ a point system that awards extra points to projects that include multimodal elements, close gaps in the multimodal network, or that more generally advance Complete Streets principles, goals, and objectives. Many of these communities and agencies also include extra points for "equity" in the provision of multimodal transportation infrastructure – ensuring that improvements for walking, bicycling, and transit are distributed across neighborhoods regardless of income or ethnicity -- in order to avoid building out a great network in one neighborhood but not in the next.

The first steps in the project development or project delivery process are closely connected to project selection. The process is especially relevant in agency or municipal programs that are purely internal. The project development process, as a whole, includes the whole "life" of a transportation project – from needs assessment, budgeting, programming, planning, scoping, through design and construction, and even into operations and maintenance. Project development processes for capital projects, large and small, should begin with an

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[3] ChangeLab Solutions has published "Move This Way: Making Neighborhoods More Walkable and Bikeable," which explains how to use zoning and subdivision codes to make communities more walkable and bikeable. It is available at http://changelabsolutions.org/publications/move-this-way.

[4] Available at http://www.cmap.illinois.gov/programs-and-resources/local-ordinances-toolkits/parking.

understanding that all roadway users will need safe routes for travel. Making this basic assumption at the very start of the process ensures cost-effective Complete Streets implementation.

Finally, agencies should assure that funding actually flows to projects according to the community's Complete Streets selection criteria. Any variance from this prioritization should be subject to the exceptions, approval process, and oversight defined by the Complete Streets policy. This can be complemented through a design process like the one outlined in Chapter 5 of Active Transportation Alliance's Complete Streets manual, *Complete Streets, Complete Networks,*[5] which builds on an evaluation of both the existing land use and transportation context, and also situates each project within a community's broader plans and objectives before it ever reaches the design stage. This way, projects are not scoped in isolation, but must take into account their role in the entire network. The *Complete Streets, Complete Networks* design checklist can be downloaded in its entirety from the link in the footnotes. New Jersey's Department of Transportation, as well as other agencies and municipalities, have also developed checklists to help ensure consistency and compliance with adopted Complete Streets policies at the earliest and all other stages of project development.[6]

Beyond capital planning: operations and maintenance

Maintenance and operation procedures, specifically repaving and signalization, provide frequent and important opportunities to implement Complete Streets. Changes made as part of maintenance and operations often have a low marginal cost since they are incorporated into work that is already scheduled and budgeted. But taking advantage of these opportunities often requires that various departments or agencies change long-standing processes and procedures and plan further ahead than they are accustomed to. By coordinating and integrating repaving or signal replacement schedules with general and mode-specific transportation and corridor plans, an agency can incorporate bicycle facilities, improve pedestrian crossings, or add parking at low cost.

Coordinated signal timing and evaluation of pedestrian crossing time, compliant with the proposed Public Rights-of-Way Accessibility Guidelines (PROWAG),[7] are other low-cost operational changes that can make a big difference in the performance of streets for pedestrians, bicyclists, and transit vehicles.

Many communities find their first chance to demonstrate the value of Complete Streets in small and inexpensive, yet highly visible, projects that present themselves as part of routine maintenance. Over time, such projects can build many incremental improvements into an effective network of Complete Streets.

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[5] Available at http://activetransportationpolicy.org/chapter-5-processes-implementing-complete-streets-network.

[6] See http://www.state.nj.us/transportation/capital/pd/documents/CompleteStreetsChecklist.doc.

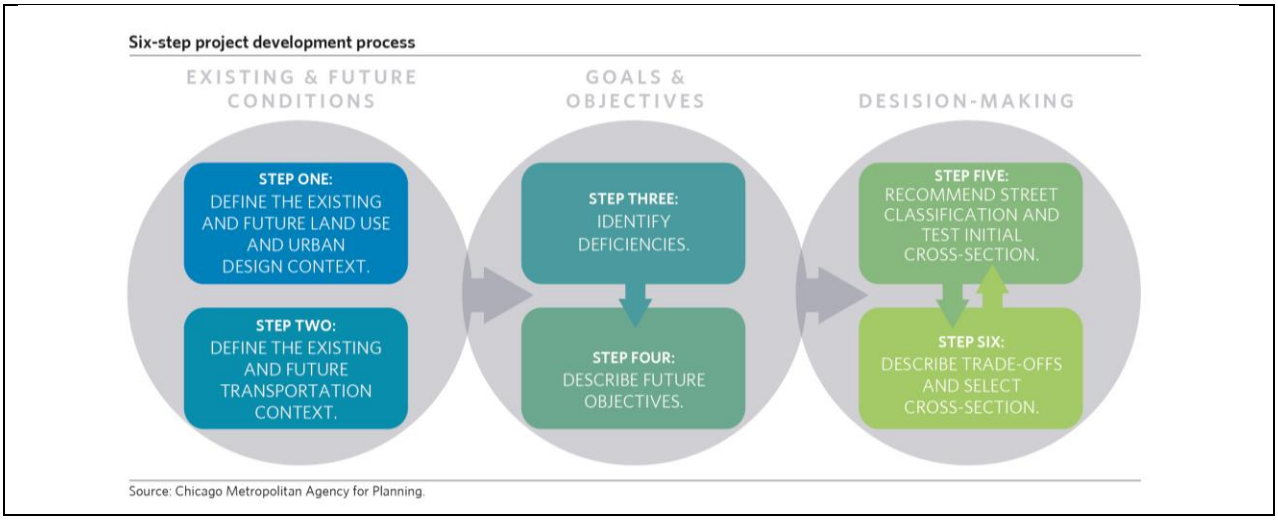
[7] See https://www.access-board.gov/guidelines-and-standards/streets-sidewalks/public-rights-of-way/proposed-rights-of-way-guidelines.

Creating opportunities for public input

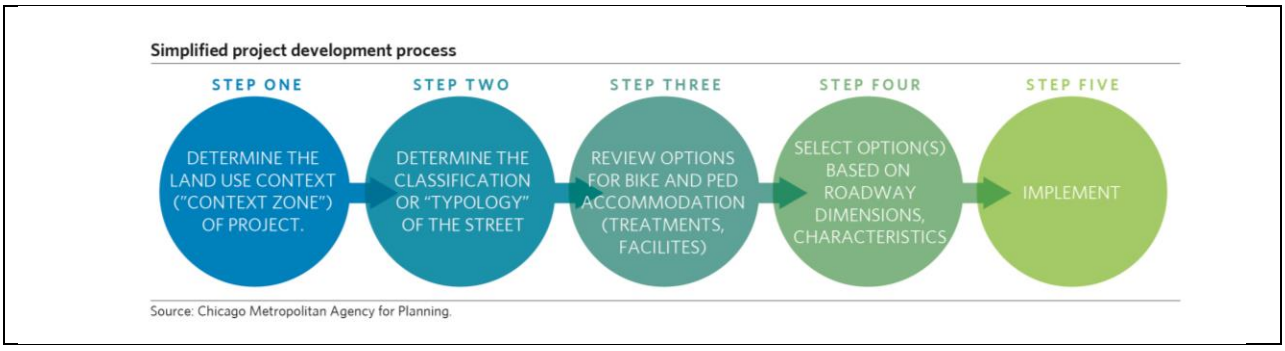
Communities should strive for meaningful public input throughout review and revision of existing plans, policies, procedures and processes to ensure successful implementation of Complete Streets. It is best to align priorities with community needs and desires in the early stages of project development, and the public should remain involved as the process continues.

Project Development Process

A crucial part of implementation of a Complete Streets policy involves understanding, reviewing, and revising project development or delivery processes. The main goals are to develop and institute a process which fully accounts for and responds to the existing and future land use and transportation context for the project and fosters flexible, creative solutions to transportation questions. The Charlotte Department of Transportation offers a sample process that can help to accomplish these goals.[8]



A slightly different and somewhat simplified version of this approach, which may be more applicable to smaller suburban communities, would be as follows:



[8] See http://charmeck.org/city/charlotte/transportation/plansprojects/pages/urban%20street%20design%20guidelines.aspx

Reviewing and updating design guidance

Common activities:

- Writing or rewriting street design guidelines.
- Using existing guidance documents that reflect national best practices.
- Applying street design guidance to public and private projects.

An agency's design guidance should support flexible, context-sensitive, and multimodal approaches to roadway design. Such approaches can empower planners and engineers to develop design solutions that balance the needs of many users and support the surrounding neighborhood. Current best practice uses street typologies with greater nuance than the traditional functional classification system (which defines roads by their function for automobiles, with little regard to surrounding land use).

The focus should be on how design decisions will be made. Concentrating on street design details and specifications to the exclusion of the bigger vision can distract agencies and their staffs from important changes in the project development and delivery process. These are necessary to institutionalize and streamline implementation of Complete Streets.

Rewriting the manual

Some communities choose to undertake a complete rewrite of their manuals, usually accompanied by developing new procedures and providing training for staff. But design manual re-writes can be expensive and time-consuming or even impossible for smaller municipalities. A growing number of communities have adapted national design templates, free and customizable, such as the Active Transportation Alliance's *Complete Streets, Complete Networks*.[9] These templates use professionally tested designs and processes, based on deep research of best practices, and present the results in a compelling format. In some regions, an active public health community has helped facilitate the process of adapting this model guidance for local agencies by coordinating technical assistance and adding capacity for local work sessions.

Supplementing national guidance

Other communities choose to supplement state and national resources.[10] Design guides from the AASHTO offer the flexibility needed to produce Complete Streets outcomes and are the basis for design guidance used in every state. However, AASHTO guides do not include the full spectrum of best-practice design options for non-highway streets. Recent guides from other agencies have built upon AASHTO documents and provide additional design options. These include NACTO's *Urban Bikeway Design Guide* and *Urban Street Guide*, and ITE's Designing *Walkable Urban Thoroughfares*, both of which have been officially endorsed by U.S. DOT.

[9] See note 53, above.

[10] See Appendix ? for links to these and other major, national and state resources related to design standards and guidance.

Project-level approaches and pilots
Some places have taken a project-level approach to design changes, trying out new approaches developed through pilot projects, quickly deployed interim solutions, or through community design charrettes. In these communities, traffic counts, crash analysis, and other measures are used to constantly evaluate the performance of new infrastructure. This can be an opportunity to experiment with low-cost, quickly built projects and to incrementally build a network of Complete Streets as various designs are implemented and prove successful.

No matter which approach is used for locally initiated projects, the review and approval processes for streets modified or built by private developers must be revised to encourage Complete Streets outcomes. Operations and maintenance activities should also be subject to these standards. Doing so ensures that all new roadways and planned developments are aligned with the community's Complete Streets goals, and that the network is constantly being improved.

Offering training and educational activities

Common activities:

- Host Complete Streets workshops for agency staff and consultants, with auxiliary sessions for community leaders and the public.
- Take advantage of professional development opportunities and webinars offered by the IDOT, CMAP, professional organizations, and research-based non-profits.
- Provide on-the-job training for agency staff, including informal and interdepartmental activities such as brown bag lunch presentations.
- Host walking audits and bicycle rides for decision-makers, agency staff, and the public.
- Engage the community through formal public engagement activities and project-based meetings.

Successful Complete Streets initiatives emphasize education, including helping planners, engineers, consultants, and departmental staff thoroughly understand the new goals, procedures, and resources for implementing a Complete Streets approach. Officials should receive ongoing updates to understand how the general Complete Streets goal is translated into built projects. The public should be informed of the many options to consider for their streets, the role and function of the streets, and what is happening to their roads. Public health agencies can assist in educational efforts by explaining the health benefits of walking and cycling for transportation.

Transportation professionals
Many communities bring in outside experts to facilitate workshops for employees and other stakeholders on details of Complete Streets and how to best apply the approach locally. The most successful workshops have attendees from various municipal departments and also invite key decision-makers and interested community members. Much of the value in holding

multidisciplinary workshops and meetings is the opportunity for new relationships and collaboration by those in attendance. Through the creation of these relationships and collaborations, the community is in a better position to establish a more inclusive decision-making process.

Technical training is useful, but it is more important in these sessions for transportation engineers and planners to understand and embrace the intention behind Complete Streets so that they are motivated to make changes in their procedures, documents, and projects. Many agencies also benefit from informal opportunities to discuss Complete Streets. Communication between departments is often cited as an absolute necessity in getting all staff on the same page.

Community leaders
Establishing political and community support for Complete Streets is essential and requires education and information dissemination. Elected officials need to understand why new designs are being proposed and to be able to explain the benefits of proposed projects to community members and business owners. When well-informed, elected officials, key municipal staff, and other community leaders can better respond to community concerns about specific projects.

General public
Complete Streets' success is dependent upon meaningful public engagement. Many communities send letters, host design charrettes, and/or post project-specific polls to gauge residents' thoughts and ideas before design decisions are made. Some communities have brought in experts to make presentations, facilitate workshops, and lead walking audits to demonstrate the benefits of Complete Streets, and others have created web pages and short videos that focus on the benefits of changing street design. Such efforts ensure an ongoing conversation about a community's future.

Measuring and reporting performance

Common activities:

- Count the number of new or repaired facilities each year (e.g. blocks of sidewalks).
- Track crashes and injuries for all types of roadway users.
- Track behavior on and use of street facilities (e.g. number of people walking).
- Conduct project-level before and after studies.

Creating and using new performance measures for transportation projects and the transportation system help agencies communicate or publicize successes and determine if they are on the right track. Transportation performance measures can and should support community goals in other areas, such as public health, economic growth, land use, and urban design. Ensuring this support requires collaboration between departments, communities, and other jurisdictions.

Agreeing to a set of performance measures is a challenge, and very few communities have tackled the creation of new performance measures in any systematic way. Yet there are relatively easy ways to demonstrate Complete Streets success. Broadly speaking, performance can be measured using outputs and outcomes.

Outputs are essentially the direct work products of public agencies. Communities can measure progress by simply counting the facilities they are building or accounting for maintenance activities. Tracking such facilities demonstrates that the community is making on-the-ground changes each year.

Outcomes are the changes in transportation performance that result from those agency outputs. For instance, a growing number of communities are counting the number of people walking and bicycling. Analyzing this data allows jurisdictions to monitor trends across the network and along key corridors. Another outcome-oriented performance measurement occurs at the project level, where data collection can show the direct and immediate operational benefits of a transportation investment.

The final step in performance measurement is reporting, which requires designating both responsibility for and frequency of reporting. The reports should be attractive and easy to access and understand.

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