

Implementing a complete streets policy: a four-step approach

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To accommodate a broader traveling public, many agencies are adopting policies and design standards focused on creating “complete streets.” A complete street incorporates design and operational features that create a safe and accessible environment for all users of the public right-of-way, including pedestrians, bicyclists, transit riders and motorists. After a complete streets policy is adopted the hard work of implementing these policies is often left to the individual transportation or public works agencies.

To minimize this burden, the National Complete Streets Coalition (NCSC) has defined four steps for implementing a new policy.

1. Restructure Procedures
2. Develop Design Policies and Guidelines
3. Provide Training
4. Improve and Update Performance Measures

1. Restructure Procedures

What is done

When procedures are restructured to include complete streets, agencies must reconsider how they prioritize projects. With a more pointed focus on users other than motorists, the concept of connectivity of modes is also given higher consideration.

For the City of West Carrollton, Ohio, future upgrades to a freeway interchange with Interstate 75 will usher an estimated 25,000 vehicles per

day into the city’s downtown business district. To capitalize on the state’s infrastructure investments, officials and staff from across departments came together to create a master plan that would deliver an enhanced sense of community in the area. Goals for the transportation plan included retaining vehicular capacity and operational levels, while reclaiming excess pavement to provide bicycle and pedestrian facilities and on-street parking. During the process, the City recognized the need to increase connectivity to regional bikeway facilities and found opportunities to do so within the preferred transportation plan. While motor vehicle traffic was certainly a focus of the plan, other users were given more consideration than ever before.

Who is involved

Considering the impact that transportation projects have on residents, it is common to seek community input. The varied perspectives provided by community stakeholders become even more important for complete streets projects.

The redesign of the central business district in downtown Lima, Ohio, is an example of how involving an expanded stakeholder group can impact a project outcome. City officials were considering the conversion of the City’s downtown one-way street network to two-way operation. If a traditional approach to project development was used,



Intensive stakeholder involvement for the City of Lima Transportation Master Plan

it is likely that the transportation plan would have recommended full conversion to two-way streets.

By conducting an intensive public engagement process, the values and needs of a much larger constituency were gauged and used to reprioritize the project goals and success metrics. Ultimately, City officials selected a design option that retained many of the benefits of a one-way street network, with inclusion of numerous complete street elements to create an enhanced environment for pedestrians, bicyclists and motorists.

2. Develop New Design Policies and Guidelines

Many communities have found creative design solutions within existing DOT or AASHTO standards or have opted to write or rewrite specific design standards to ensure that complete street elements are incorporated in a consistent manner.

Roadway improvements on West Broad Street just outside of Columbus, Ohio, provide an example of a project that capitalized on existing design standards to convert a traditional, urban arterial corridor into a complete street. This five- and seven-lane roadway services 40,000 vehicles per day and experienced a crash density nearly four times the statewide average.



Existing West Broad Street – without complete street amenities

Redesigning West Broad Street as a complete street provided a solution that improved safety for all users, while meeting the expectations and design standards of a traditional

urban roadway. The complete street design also offered an opportunity for an enhanced sense of community in a redeveloping portion of the county. Through the work of a group of community leaders and private businesses, the DOT stands to avoid \$2.5 million in commercial property right-of-way acquisition cost due to right-of-way donation along the corridor.

Table 1 compares the design elements of the original design of West Broad Street to the proposed complete street design, which maintained compliance with existing ODOT design standards

and incurred no additional right-of-way impact.

3. Provide Training

To implement lasting change from a new complete streets policy, affected staff needs to understand the nuances of the policy, as well as the associated changes to design guidelines.

To ensure successful implementation of a new complete streets policy, the Miami Valley Regional Planning Commission (southwest Ohio) recognized the need to provide

Design Element	Traditional Design	Complete Street Design
Lane Width	<ul style="list-style-type: none"> 12-foot through lanes 	<ul style="list-style-type: none"> 11-foot through lanes
Curb Type	<ul style="list-style-type: none"> Combination curb and gutter 	<ul style="list-style-type: none"> Barrier curb to eliminate longitudinal joints in the shoulder
Bike Facilities (shoulder design)	<ul style="list-style-type: none"> 2-foot paved shoulder adjacent to curb and gutter 	<ul style="list-style-type: none"> 5-foot paved shoulder marked as a dedicated bike lane Paved shoulder at single consistent cross slope to eliminate cross slope breaks for improved riding surface in the bike lane
Transit Facilities	<ul style="list-style-type: none"> Standard signage at identified stops 	<ul style="list-style-type: none"> Turnout areas for buses to exit travel lane for loading/unloading Shelters, benches bike racks, trash receptacles
Pedestrian Facilities	<ul style="list-style-type: none"> 8-foot sidewalk at back of curb 	<ul style="list-style-type: none"> 5-foot sidewalk with 5-foot buffer zone between curb Two mid-block crossing locations equipped with pedestrian hybrid beacons Rectangular Rapid Flash Beacons (RRFB) at freeway ramp crossings

technical assistance to government officials, engineers and planners in its member jurisdictions. MVRPC administered a free educational opportunity for its member agencies, including information on basic complete streets elements, design considerations, and treatments for corridors and intersections.

In addition to training public agency employees, there is also value in educating the general public. Community outreach efforts can explain the importance of a complete streets policy for transportation safety, as well as for economic development, environmental and health purposes.

4. Improve and Update Performance Measures

One of the best ways to ensure that a new policy is implemented is to measure the direct results. Traditional measures of performance are typically limited to the following:

- Cost
- Usage (vehicular traffic volumes, lane miles)

- Safety (crash frequency and severity)
- Performance (volume to capacity ratios, vehicular level of service)
- Public acceptance

The new recommendation is to identify a holistic set of performance measures that consider the full spectrum of a project's goals, needs and objectives. Possible performance measures for complete street projects include:

- Facilities
 - Cost allocated per mode
 - Miles of sidewalks, bike lanes, etc.
 - Number of upgraded intersections
 - Change in modal connectivity
- Usage
 - Change in traffic volume
 - Percentage of children walking or biking to school
 - Change in transit ridership
- Multi-modal level of service
 - Vehicular
 - Transit

- Pedestrian
- Bicycle
- Safety
 - By mode
- Environmental
 - Air quality/emissions
- Health indicators
 - Obesity rates
 - BMI
- Economic impacts

Conclusion

Although the fundamental concepts of complete streets have become more recognized in recent years, many of the tangible benefits such as economic sustainability, improved safety, and community livability will be fully realized in the years to come. Following the implementation steps outlined by the National Complete Streets Coalition will help communities realize the many benefits that come from adoption of complete street policies.

Elizabeth Sliemers is a traffic engineer and transportation planner with LJB Inc., a consulting firm in Dayton, Ohio. Beth brings more than 10 years of experience working in collaboration with public and private agencies to create solutions to local and regional transportation challenges, with specific emphasis on complete street design and implementation. With her passion for walkable and livable communities, Beth has helped clients create visions for streets that move people, not just motor vehicles.

For more information about this topic or to discuss how you can implement a complete streets policy within your agency, contact Beth at (937) 259-5165 or by e-mail at BSliemers@LJBinc.com.



Miami Valley Regional Planning Commission staff training