



Bicycle Wheels Keep Rolling in Battle Creek

By Max Phares and Leah Groya

Community master plans can collect a lot of dust before seeing the light of day. The cost and desire to implement a community's vision can be prohibitive, particularly during challenging economic times when budget competition from common infrastructure needs is high. The dust never had a chance to settle in Battle Creek—the city has made tremendous progress bringing their Non-Motorized Transportation Network Master Plan to life.

Battle Creek realized that its streets could be better utilized to promote an active and healthy lifestyle for residents. The community of 53,000 had an extensive linear park system along the Kalamazoo River but lacked non-motorized connections between the parks and neighborhoods and between schools and neighborhoods. Connections from the city's pedestrian-friendly downtown to outlying areas also did not exist.

Seeking to create a non-motorized network that safely connects pedestrians and bikers from their origins to desired destinations, the city worked with Wade Trim planners and engineers to develop a 20-year Non-Motorized Transportation Network Master Plan.

Public Engagement Validates Desired Connections

The plan was developed during 2005 and 2006 using a context-sensitive approach that featured strong stakeholder involvement. Many modes of non-motorized transportation are addressed including pedestrian, bicycle, equestrian and canoe. It includes connections throughout the entire city and links to adjacent communities within Calhoun County and the region. Existing infrastructure resources were used to develop an efficient system that would minimize disruption to the community and be compatible with the human and natural environments.

Extensive public participation activities included an online survey and two workshops that helped identify preferred routes, corridors, destinations, and facilities. Participants then placed Post-it Notes on a map of the city to indicate where they would like to see bike lanes and connections added. Input was also obtained from surrounding communities, Calhoun County, the Michigan Department of Transportation, the public school districts, neighborhood planning groups, Battle Creek Area Transportation Study, and a number of special interest groups and individuals.

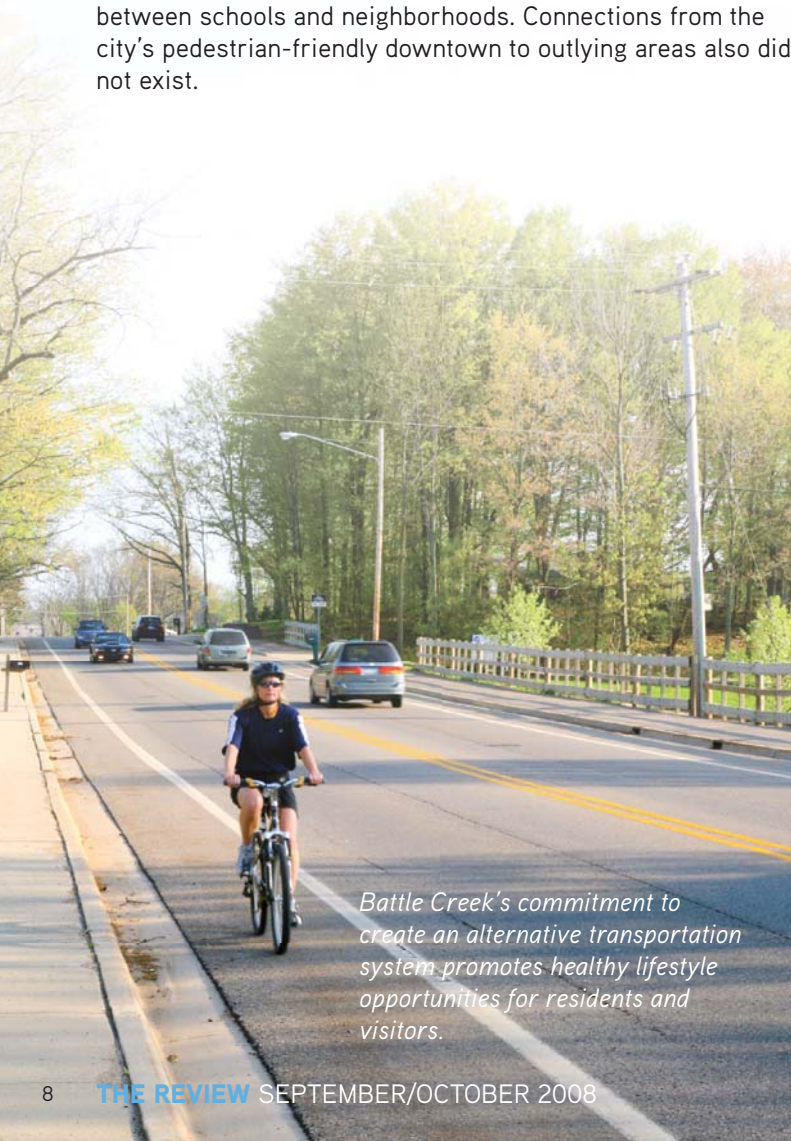
The plan includes an existing conditions analysis including primary destinations within the community; maps and graphics illustrating preferred locations for off-road trails and on-road bike lanes; and design considerations and typical cross-sections for various conditions found within the city. The plan also contained short-term priority projects, recommended actions and an implementation strategy, including estimates of probable costs and potential funding strategies.

Community Enthusiasm Boosts Implementation

Priority projects were identified using the following criteria:

- Ease of implementation (projects with few design conflicts and low costs)
- Coincides with other projects (such as road resurfacing)
- Provides connections to important designations and transportation modes
- Includes school-related usage

Based on these criteria, all projects in the non-motorized system were classified as short, intermediate, or long-term. In addition to projects that provided connections for non-motorized traffic, other recommendations included developing a City Bike Rack Program for public parks and major facilities, including schools; working with state and local groups to expand opportunities for safe, low-impact water recreation on the city's rivers; setting up a dedicated maintenance program for non-motorist facilities, and developing a coordinated sign and way-finding system.



Battle Creek's commitment to create an alternative transportation system promotes healthy lifestyle opportunities for residents and visitors.



A variety of stakeholders were involved in developing the plan.

Incorporating new bike lanes when city streets were resurfaced proved an effective implementation strategy; 128 bike lane miles have been added in three years.



On-road bike lanes provide non-motorized connections along the city's existing linear park system.

Street Resurfacing Proves Ideal Catalyst

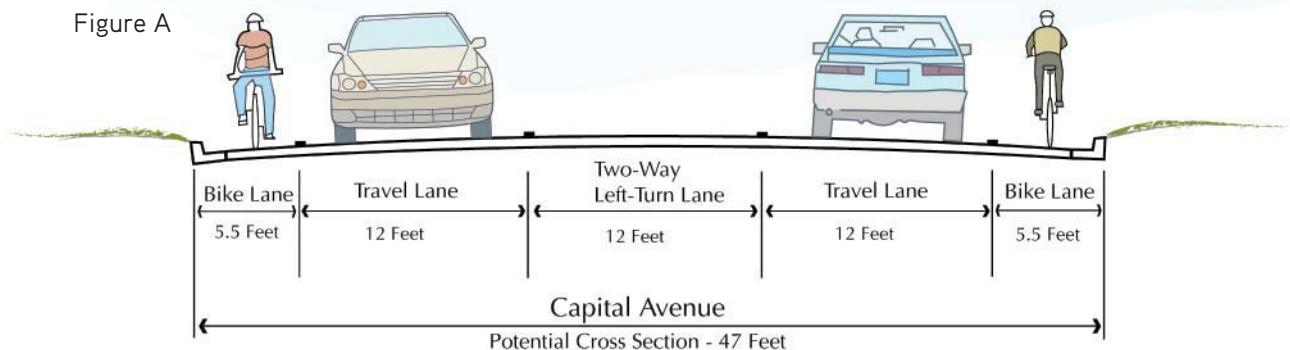
While implementation was a major focus from day one, the street resurfacing program provided a tangible catalyst to incorporate the city's new bike lanes. All projects on the city's ongoing street resurfacing program were reviewed. Resurfacing projects that included non-motorized facilities such as bike lanes were identified and flagged for implementation. As each resurfacing project was bid, the non-motorized elements such as widening the shoulder, changing the pavement markings to include bike lanes, etc., were included in the design. In addition to construction cost savings achieved by combining the two projects into one, the visual appearance of the final product was much more pleasing than a retrofit.

Enthusiasm throughout the community and with city officials was so high that implementation of a pilot program began before the final plan was completed. During the fall of 2005 Wade Trim was retained to layout pavement markings and signing for bike lanes.

Implementation was of particular concern because it required reducing the number of vehicle through lanes from four to two and installing a center two-way, left-turn lane to provide space for bike lanes. This important north-south corridor carries both residential and commercial traffic to and from the downtown area. While the lane reductions did reduce the vehicular level of service, corridor safety has been improved and public response to the new bike route has been positive.

The city's resurfacing schedule continued to advance the addition of bike lanes. To date, 128 bike lane miles have been implemented on 19 streets. Many of the streets are 38-foot wide from curb to curb. Some sections had two through lanes with parking on both sides. During resurfacing, several design options were used depending upon the need to accommodate parking and left-turn vehicles. For example, one alternative,

Figure A



Lane reductions enabled bike lanes to be implemented on Capital Avenue, a major route to downtown.


where there are numerous left-turns, utilized two through lanes, a center left-turn lane, and bike lanes. In the second alternative, where it is necessary to provide on-street parking, there are two through lanes, one parking lane, and bike lanes. The third alternative, where on-street parking is not needed, includes two wide through lanes and bike lanes. (Figure B)

Comments from the public continue to be positive. Concerns primarily came from citizens when on-street parking was changed in front of their homes. In some cases, on-street parking on both sides of the street was limited to parking on one side in order to accommodate the bike lanes. Discussions with the home owners, explaining the change, how it impacted them, and why changes were made, aided in addressing most concerns. Occasionally, motorists have been observed parking in the bike lane, but it has not become a problem.

Figure B: Concepts were developed for various road widths and conditions within the city to illustrate alternatives to accommodate on-road bike lanes.

Key Lessons Learned During the Program Include:

- Community involvement from the beginning to the end of the plan development is essential to produce an effective, implementable plan.
- Test the waters of public concern by implementing several inexpensive bike lanes or trail connections on a pilot basis. This provides the opportunity for the public to get a feel for the impacts of the feature without major construction that cannot be easily changed.
- The visual features of a road corridor are an important consideration when adding a non-motorist accommodation such as a bike lane. Incorporating these features during a resurfacing project not only saves construction costs, but increases the aesthetics of the finished product.

Battle Creek's Non-Motorized Transportation Network Master Plan supports a healthy, vibrant community image and reflects the community's values. With additional non-motorized facilities planned, the system will be an important community asset for years to come. 

Leah Groya, AICP, LEED-AP, is a planner in the Environmental Design Group at Wade Trim. You may reach her at 734-947-9700 or lgroya@wadetrim.com

Figure B

