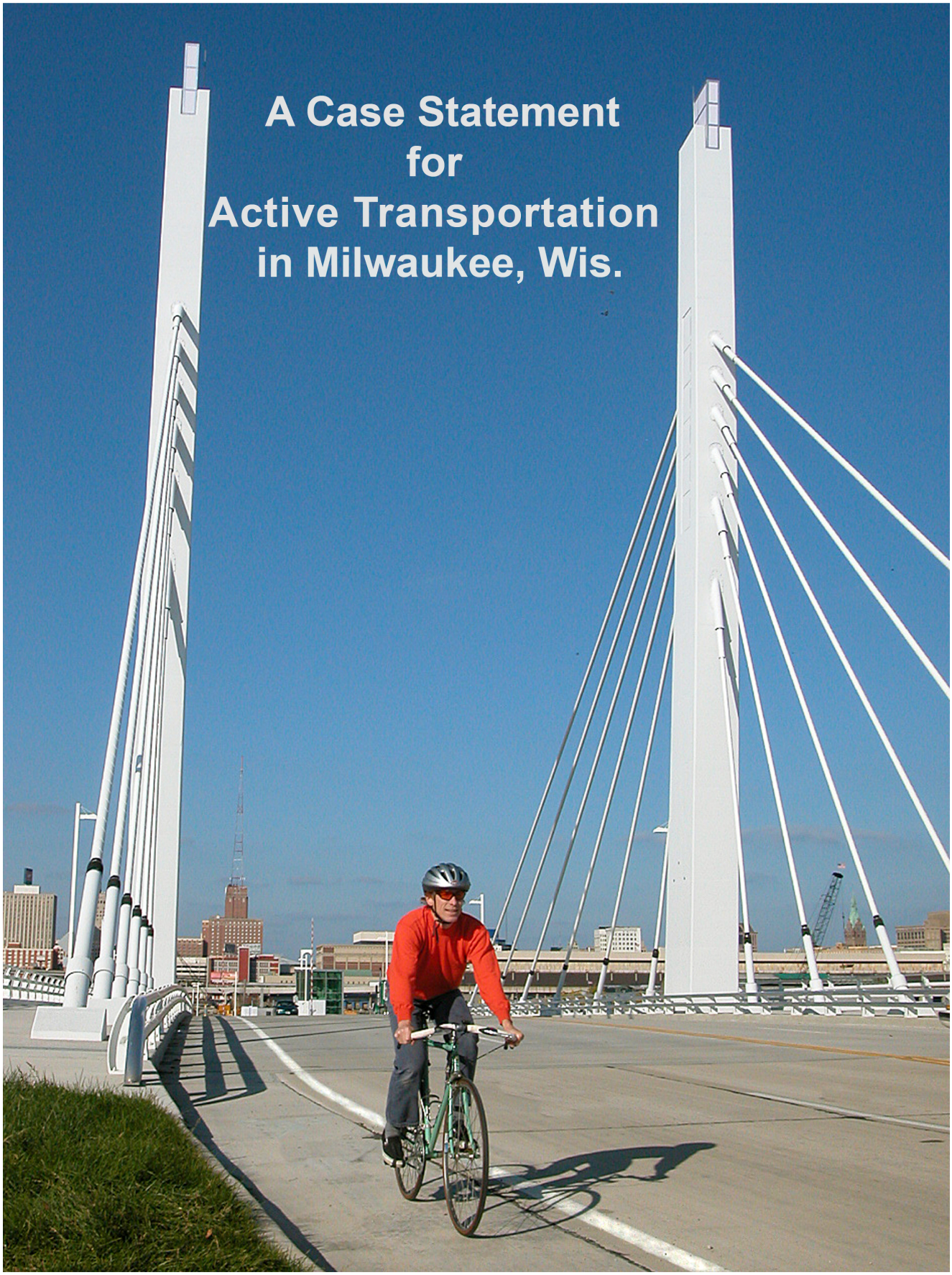
A Case Statement for Active Transportation in Milwaukee, Wis.



City of Milwaukee Active Transportation Case Statement

Bicyclists and pedestrians are a primary indicator species of a vital urban environment. Cities and neighborhoods with lots of people walking and cycling tend to be healthier, more interesting and economically successful. But much more work can be done before Milwaukeeans of all ages and abilities in every neighborhood view walking and bicycling as attractive, convenient and safe options for transportation and recreation. Existing and planned facilities and policies reflect that vision.

Milwaukee currently has an aging, but complete and fully accessible network of pedestrian walkways and bridges and an ordinance that requires sidewalks on both sides of any new street. Our city area planning documents all call for significant updates in pedestrian amenities and compact land development strategies to make neighborhoods and business districts more walkable.

These amenities include upgraded pedestrian lighting, traffic calming, greening of the street corridors and simple things like more benches and trash receptacles. Funding needs for these planned pedestrian improvements is always the limiting factor in what gets built and when.

Milwaukee is currently updating its bicycle master plan and the final recommendations and goals will not be available until that is done in December of 2009. Much of the suggested content for this case statement will be answered in that planning process. But preliminary work gives us some idea of needs. Existing and proposed changes in programs are listed below.

Programs:

General Bicycling and Pedestrian Marketing Program: The City has a Bicycle Publicity Plan intended to encourage single occupancy vehicle drivers to try bicycling for utilitarian trips. That plan is being updated and integrated into our new bicycle master plan. It has several suggested budget levels and includes traditional marketing approaches such as print and electronic media campaigns. The updated version will include four major components: an expanded StreetShare pedestrian safety program, a Safe Routes to School Program, a Bike to Work Program, and a General Targeted Social Marketing Campaign with a $3 million total budget over a period of five years

Bike to Work Program: Our bike to work program will be an expanded version of two smaller pilot projects done by the Bicycle Federation of Wisconsin at 5 large employers in Milwaukee. That program involves creating a bike to work action team at each large employer, and working within each company to grow an active culture of bicycle commuting through brown bag lunch programs, friendly competitions between departments and other incentives. The pilot program proved very successful and has resulted in sustained growth. At We Energies, one of the participating companies, there were only 5 people who biked to work at the start of the project. The company now has more than 100 employees who participate and log over 25,000 miles bicycle commuting each year.

The Bicycle Federation of Wisconsin's Sheboygan Bike to Work campaign showed a similarly impressive 7% increase in mode share with a very limited budget of $40,000. By expanding this program to 15 large employers in Milwaukee, we expect a reduction of 250,000 Vehicle Miles Traveled per year. Cost of the Employer Based Bike to Work program: $250,000.

Targeted Marketing Program: Our project is modeled after the Portland Travel Smart targeted marketing campaign, which showed a 47% increase in walking and a 65% increase in biking amongst the project participants. The project also demonstrated a 14% reduction in Vehicle Miles Traveled during the campaign. Our project will include the following steps:

- The first step is a "before survey". The University of Wisconsin Survey Dept. will conduct a randomly selected survey of people in the Milwaukee target area. This initial survey determined how household members currently travel. The cost of this survey and analysis is $15,000.

- Second step – individualized marketing. A period of personalized contact focused on those who expressed an interest in receiving information and assistance about traveling by non-motorized modes. Based on similar projects done in Portland, Oregon and Sheboygan, Wisconsin, approximately 2,500 people. Those people who were not interested will not be contacted. Cost: $100,000.

- Third step is an "after survey". One year after the initial survey, a random survey will be conducted by the University of Wisconsin Milwaukee Survey Dept. to determine the effect of the marketing campaign. Cost: $15,000.

- Fourth Step is an "In-Depth Study." The in-depth study determined the potential for travel behavior change via a one hour-long home interview with persons of selected households aimed at collecting information on the reasons behind their mode choice. Once the data is collected, careful analysis is carried out to assess whether an alternative mode actually could have been a viable option to the car. Cost: $25,000

StreetShare Pedestrian Safety and Encouragement Program: Milwaukee's "StreetShare" program addresses the education and encouragement aspect of improving pedestrian safety for adults as well as children. In before and after tests at unmarked crosswalks, StreetShare and has been proven to work well, increasing the yield compliance rate to 95% in tests when combined with simple engineering improvements like in-street yield to pedestrian signs and strategic enforcement. Police staffing levels limit proposed increases in enforcement efforts. The education component of StreetShare program is accomplished using DPW bike/ped program staff and volunteer time from the community, but is proposed to be contracted out to a marketing consultant.

Let Them Cross - Drivers of all vehicles are required by law to yield the right of way to pedestrians in a marked or unmarked cross-walk. The illustration above shows 3 different types of crosswalks. Motorists should watch ahead for pedestrians at or approaching the curb, and slow or stop to allow people to cross the street.

Current Budget	Proposed	Program Element
$2,500.00	$125,000.00	Social Marketing
$4,000.00	$ 8,000.00	Bicycle Enforcement
$6,000.00	$12,000.00	Pedestrian Enforcement
$12,500.00	$145,000.00	Total Budget

Safe Routes to School: We have an active and in depth safe routes to school education program run by the Bicycle Federation of Wisconsin. Currently the BFW takes a fleet of bicycles to each school enrolled in the program and provides 10 hour curriculum to 4th through 6th grades. The BFW also includes a six hour pedestrian safety curriculum targeted at 2nd and 3rd grade students. Finally, the schools get a GIS based safe routes map for a one-mile radius around each school. The maps feature locations for all crossing guards, traffic controls and crosswalks. The BFW also does a hazard/barrier analysis and makes written recommendations for facility improvements to enhance safe routes to each school.

Sherman Elementary School students during a SR2S on-street bicycle ride.

With a program budget of $100,000, about 1,300 third and fourth grade students each year get that ten-hour bicycle and pedestrian curriculum, or $76/student. Using economies of scale found in similar school programs, projections suggest expanding the program to all 23,000 third and fourth grade students in Milwaukee, the cost would decrease to $27/student or total budget of about $600,000.

Milwaukee Public Schools have a Neighborhood Schools Initiative to enlarge schools in high-density neighborhoods and encourages walking and biking to nearby schools instead of bus to more distant schools. Our Dept. of Public Works would work with MPS to implement the BFW's facility recommendations around these schools. These projects will include improved crossing such as adding pedestrian refuge islands, ped activated signals, countdown timers, in-street yield signs, etc. The estimated budget for these improvements averages $85,000 per school for ten schools in the NSI program, or $850,000.

New bike racks at Cooper Elementary School get lots of use.

Enforcement: The Milwaukee Police Department currently spends $12,000 annually for strategic enforcement of bicycle and pedestrian laws. This enforcement is done on voluntary overtime by the one traffic squad in each district. We propose adding an additional traffic enforcement squad to each of the seven police districts. At an annual cost of $105,000 per officer, this enforcement effort will cost the City $735,000 annually for payroll and benefits.

Facilities:

Milwaukee has a growing infrastructure for bicycling and plans for many more facilities. Existing facilities include more than 2000 bicycle parking racks, 140 miles of signed bike routes, 45 miles of bike lanes, and a 105 mile system of off-street trail. We also have a neighborhood traffic management program that installs speed humps, traffic circles, curb extensions, etc. on our local street network. Site appropriate pedestrian improvements such as curb extensions, special signage and high visibility crosswalk pavement markings are included in all arterial resurfacing and reconstruction projects in our regular paving program.

We also have a bikeway network plan that calls for 100 miles of additional bike lanes and three new high priority off-street trails. Initial work on the new bicycle master plan suggests the following updates to those existing proposed facilities.

Additional Bicycle Parking:
The provision of safe, convenient and secure bicycle parking is an important part of Milwaukee's progress to improve its bronze level Bicycle Friendly Community status and enforce the bicycle parking provisions of the zoning code to allow more racks to be installed without any expense to taxpayers. The City should continue to install Class I, Class II and Class III bicycle parking facilities.

With 2000 outdoor racks available, Milwaukee has one rack for every 298 citizens. It is recommended that Milwaukee continue to install bike racks until there is at least one rack for every 260 bicyclists, to follow the best practices of Portland, OR. If parking meters are removed from city streets, the number of racks per person will need to be even higher as parking meters currently provide a large amount of bicycle parking.

Prevalence of Bicycle Racks

	Number of Racks Installed	Population	Number of People per Rack
Seattle	2000	563374	281
Portland	2000	529121	264
Chicago	10000	2896016	290
Milwaukee	2000	596974	298

Bicycle Station: Milwaukee has begun to focus on providing more long term bicycle parking to encourage bicycle commuting and reduce air pollution. Long term (Class I) bicycle parking could be in the form of additional lockers or a Bike Station (bicycle commuter center). Bicycle lockers are more cost effective when less than 20 storage spaces are needed. For long term storage of more than twenty bikes, Bike Stations become cost effective. About 30% of Bicycle Station users in California, Seattle, and Chicago have said that previous to the creation of the Bike Station, they drove alone to work. Bicycle commuter centers with secure long term storage, protection from weather, showers, lockers and a host of optional support services are being developed in a dozen cities in the US. A bicycle commuter station could support existing bike commuters and shift some single occupancy vehicle trips to bicycle however, further study is needed to analyze long term bicycle parking needs and the feasibility of a Milwaukee Bike Station.

Milwaukee's Bicycle Station would be linked to a downtown transit station to enhance multi-modal connections. Since it would not need to be a stand-alone building, it could be less expensive to construct and maintain that similar stations in Chicago and Palo Alto. Our estimates for suggest we could build a bicycle commuter station with capacity for 150 bicycles for $700,000.

Raised Bike Lane Network: 40 mile Raised Bike Lane Network: Similar to the cycle-tracks of Copenhagen and Amsterdam that have been credited with increasing bicycle mode share dramatically. Our network of raised bike lanes is on several arterial streets in key corridors that will act as the spine of our on-street bikeway facilities. Our raised bike lane network would include several areas of the City:

A northerly north/south route from the University of Wisconsin Milwaukee campus to Downtown

A central east/west route along Highland Ave. to Downtown

A southerly north/south route along Kinnickinnic

Raised bike lanes are expensive facilities to construct because they require the relocation of catch basins and curb and gutter work. Our estimates suggest a cost of $640,000/mile, or $25,600,000 to complete the network.

50 mile Bicycle Boulevard Network: Really a network of traffic calmed local streets, the bicycle boulevard network proposed for Milwaukee will link neighborhoods with area business districts, parks and employment centers. Based on current costs for traffic calming projects, we estimate $64,000/mile for bicycle boulevards or $3.2 million.

Complete the Painted Bike Lane Network: Milwaukee has already completed an on-street bikeway network study identifying 250 miles of roads with cross sections that will accommodate bike lanes. The City then worked with citizen groups to prioritize those 250 miles into A, B and C categories. With 145 miles in the top Category A, the City has already painted 45 miles and has 100 miles left. Area cyclists have universally praised the new bike lanes and we have seen a dramatic increase in bicycle trips on the streets with the painted bike lanes. Our City of Milwaukee Planning Director, Robert Greenstreet, said our new bike lanes are the most significant transportation improvement of the last 50 years.

At a cost of $3,500/mile to stripe bike lanes on both sides of the street, completing our 145 mile Category A bike lane network will cost $3.5 million.

Off-Street Trails: Milwaukee has also completed an off-street feasibility study, which identified open corridors for additional off-street multi-use trails. A map of those potential trails is included with this case study. As part of that study, the consultant did counts on existing trails and has determined there are approximately 1,000 commute trips per day on Milwaukee's east Purchasing the right of way and constructing the trails and bridges on our three high priority off-street corridors is estimated at $11 million.

Summary

Encouragement, education, enforcement and engineering are the four E's of any successful transportation plan. Milwaukee's effort to make walking and bicycling the first and second choices most trips will take a significant investment in programs and facilities. Our current bicycle mode share as reported by the Census data suggest only .34% of all commutes are made by bicycle. Minneapolis has 2.4% and a much colder climate. While this only accounts for a small percentage of all trips, and many other utilitarian and recreational trips are made by bicycle in Milwaukee, it is clear that there is much room for improvement. Taking best practices from our neighbors and adapting them to Milwaukee it should be possible create a City where walking and bicycling are the most attractive transportation choices for many more people.

Program/Facility	Budget
General Bicycling and Pedestrian Marketing Program	$3,000,000.00
Bike to Work Program	$250,000.00
Targeted Marketing Program	$155,000.00
StreetShare Pedestrian Safety Program	$145,000.00
Safe Routes to School	$850,000.00
Enforcement	$735,000.00
Additional Bicycle Parking	$200,000.00
Bicycle Station	$700,000.00
Raised Bike Lane Network	$25,600,000.00
Bicycle Boulevard Network	$3,200,000.00
Painted Bike Lane Network	$3,500,000.00
Off-Street Trails	$11,000,000.00
Total	$49,335,000.00