Appendix

Platteville

Safe Routes

To School

Appendix A: Wellness Policy

Platteville School District Wellness Policy

Revised July 17, 2006

Nutrition and physical activity influence a child's development, health status, well being and potential for learning. Students who practice good nutrition attend school with minds and bodies ready to take advantage of their learning environment. The Platteville School District encourages all members of the school community to help create an environment that supports healthy, lifelong habits and develop school programming that reflects and encourages positive nutritional choices.

To promote the health and well being of all students, the Platteville School District Board of Education shall:

1. Engage students, parents, teachers, food service personnel, health professionals, school board members and other interested community members in developing, implementing, monitoring and reviewing school district nutrition and physical activity policies.

2. Ensure that foods and beverages sold or served at school meet the nutrition recommendations of the U.S. Dietary Guidelines for Americans.

3. Provide affordable, nutritional and appealing school lunch and breakfast programs that meet or exceed both state and USDA guidelines and prohibit other food and beverage sales to students that are in direct conflict with the federal school meal programs.

4. Prohibit the sale of food, candy and beverages with minimal nutritional value, as defined by federal dietary guidelines, to students until the end of the school day.

5. Equip all students with the knowledge and skills necessary to make nutritious food and activity choices for a lifetime and promote nutrition education and physical activity throughout the school environment.

6. Ensure that all students have the opportunity, support and encouragement to be physically active on a regular basis.

Created:	July 28, 2003
Revised First Reading:	June 12, 2006
Revised Second Reading:	July 24, 2006

School District of Platteville
Platteville, Wisconsin

TO ACHIEVE THESE POLICY GOALS:

I. School Health Councils

The school district will create a school health council to develop, implement, monitor, review, and, as necessary, revise the school wellness policy. Council members may also serve as resources to school sites for implementing the wellness policy. The school health council is a school and community group that should include representation from parents, students, food service staff, school board, school administrators, teachers, health professionals, and members of the public.

II. Nutritional Guidelines for Foods and Beverages Sold and Served at School

School Meals

Meals served through the National School Lunch and Breakfast Programs will:

- Be appealing and attractive to children;
- Be served in clean and pleasant settings;
- Meet, at a minimum, nutrition requirements established by local, state, and federal statutes and regulations;
- Offer a variety of fruits and vegetables;
- Serve only low-fat (1%) and fat-free milk and nutritionally-equivalent non-dairy alternatives as defined by USDA;
- Ensure that half of the served grains are whole grain.
- Provide a sufficient amount of time for students to eat breakfast and lunch.
  - breakfast (10 minutes after receiving the meal)
  - lunch (20 minutes after receiving the meal)
- Utilize methods to serve breakfast that encourage participation (i.e. breakfast in the classroom, "grab-and-go" breakfast, or breakfast during morning break).
- Encourage parents of non-participating children through newsletter articles to provide a healthy breakfast for their children at home.
- Publicize nutritional information (i.e. total calories and calories from fat) for all items being served in the school meals program.

The food service program should involve students and parents, by committee or by survey, in a process of menu advising for the school lunch and breakfast programs.

Free and Reduced-priced Meals Schools will make every effort to eliminate any social stigma attached to, and prevent the overt identification of, students who are eligible for free and reduced-price school meals.

Lunch Schedules School lunches will be served between 11:00 a.m. and 1:00 p.m. and allow students 20 minutes to eat after being served. Some exceptions may apply.

Foods and Beverages Sold Individually

Elementary Schools The school food service program should provide all food and beverage sales to students in elementary schools. Given young children's limited nutrition skills, food in elementary schools should be sold as balanced meals. If available, foods and beverages sold individually should be limited to low-fat and non-fat milk, fruits, and non-fried vegetables.

Middle and High Schools In middle and high schools, all foods and beverages sold individually outside the reimbursable school meal programs (including those sold through a la carte [snack] lines, vending machines, student stores, or fundraising activities) during the school day, will meet the following nutrition and portion size standards:

Beverages

- Allowed: water or seltzer water without added caloric sweeteners; fruit and vegetable juices and fruit-based drinks that contain 100% fruit juice and that do not contain additional caloric sweeteners; unflavored or flavored low-fat or fat-free fluid milk and nutritionally-equivalent nondairy beverages as defined by USDA;

- Not allowed: soft drinks containing caloric sweeteners; sports drinks; iced teas; fruit-based drinks that contain less than 100% real fruit juice or that contain additional caloric sweeteners; beverages containing caffeine (excluding low-fat or fat-free chocolate milk which contains trivial amounts of caffeine).

Foods

A food item sold individually:

- will have no more than 30% of its calories from fat (excluding nuts, seeds, peanut butter, and other nut butters) and 10% of its calories from saturated and trans fat combined;
- will have no more than 30% of its weight from added sugars;
- will contain no more than 230 mg of sodium per serving for chips, cereals, crackers, French fries, baked goods, and other snack items; will contain no more than 480 mg of sodium per serving for pastas, meats, and soups; and will contain no more than 600 mg of sodium for pizza, sandwiches, and main dishes.

A choice of at least two fruits and/or non-fried vegetables will be offered for sale at any location on the school site where foods are sold. Such items could include, but are not limited to, fresh fruits and vegetables; 100% fruit or vegetable juice; cooked, dried, or canned fruits (canned in fruit juice or light syrup); and cooked, dried, or canned vegetables (that meet the above fat and sodium guidelines).

Portion Sizes:
Limit portion sizes of foods and beverages sold individually to those listed below:

- One and one-quarter ounces for chips, crackers, popcorn, cereal, trail mix, nuts, seeds, dried fruit, or jerky;
- One ounce for cookies;
- Two ounces for cereal & granola bars, pastries, muffins & doughnuts;
- Four fluid ounces for frozen desserts, including, but not limited to, low-fat or fat-free ice cream;
- Eight ounces for non-frozen yogurt;
- As soon as possible, but not later than July 1, 2008, beverage sizes (excluding water) will not exceed twelve fluid ounces;
- The portion size of a la carte entrees and side dishes, including potatoes, will not be greater than the size of comparable portions offered as part of school meals. Fruits and non-fried vegetables are exempt from portion-size limits.

Fundraising Activities To support children's health and school nutrition-education efforts, fundraising activities conducted at school during the school day will use only foods that meet the above nutrition and portion size standards for foods and beverages sold individually (above). School sponsored organizations (those for whom the school district maintains fund accounts) will be encouraged to promote physical activity or nonfood items for fund raising activities that are conducted outside of school and outside the school day.

Snacks Snacks served during the school day or in after-school care or enrichment programs will make a positive contribution to children's diets and health, with an emphasis on serving fruits and vegetables as the primary snacks and water or milk as the primary beverages. School and classroom newsletters and websites will identify preferred snacks to guide parents who provide snacks for classrooms or programs at school.

Rewards. Schools will not use foods or beverages that do not meet the nutrition standards for foods and beverages sold individually (above), as rewards for academic performance or good behavior.

Celebrations. Schools should limit celebrations that involve food during the school day to no more than one party per class per month. Each party should include no more than one food or beverage that does not meet nutrition standards for foods and beverages sold individually (above).

III. Promoting Nutrition Education and Physical Activity
Nutrition Education Teach nutrition facts and promote healthy eating habits:

- By teaching the knowledge and skills necessary to promote and protect good health at each grade level in the health/PE curriculum.
- By reinforcing the health/PE curriculum within all subject areas.
- By providing wellness training for teachers and other school staff.
- By conducting contests, participatory activities, surveys and other activities that promote nutrition awareness.

Physical Activity Encourage students to embrace regular, physical activity as a personal behavior:

- By teaching the knowledge and skills necessary to promote a physically active lifestyle at each grade level in the health/PE curriculum.
- By finding opportunities to incorporate short physical activity breaks into other classes as appropriate.
- By encouraging students to incorporate 60 minutes of physical activity in their normal, daily routine, such as walking/biking instead of driving to school, activities, etc.

Communications with Parents Schools will support parents' efforts to provide a healthy diet and daily physical activity for their children. Parents will be encouraged to have their children walk/bike to school and activities whenever practical. Information on school websites and in school newsletters will enhance parental awareness about good nutrition and physical activity. School websites, newsletters and calendars will inform parents of physical activity opportunities that are available to students both during and after the school day.

Food and Beverage Marketing in Schools School-based marketing will be consistent with nutrition education and health promotion. As such, schools will limit food and beverage marketing to the promotion of foods and beverages that meet the nutrition standards for meals or for foods and beverages sold individually (above). School-based marketing of brands promoting predominantly low-nutrition foods and beverages is prohibited. The promotion of healthy foods, including fruits, vegetables, whole grains, and low-fat dairy products is encouraged.

Staff Wellness The School District values the health and well-being of every staff member and will support efforts to plan and implement activities that support personal efforts by staff to maintain a healthy lifestyle.

Facilities and Infrastructure There will be well-maintained walking and bicycle access to all schools and convenient bicycle racks provided. The district will advocate for safe, convenient walking/bike access to schools from any new residential development.

IV. Physical Activity Opportunities and Physical Education

Physical Education. The school's physical education program will ensure that students have the opportunity, support and encouragement to be physically active on a regular basis. Physical education teachers will provide leadership within each school to help students develop and self-monitor a daily physical activity habit. Daily physical education classes and regularly scheduled recess in the elementary schools will help form the habit of daily physical activity. As they mature and become more responsible at the middle and high school levels, students will be expected to supplement their physical education classes with physical activity in other ways including their participation in organized sports and personal physical activity plans. At the middle and high school levels, interscholastic or intramural sports should supplement but not substitute for meeting the school's physical education requirement. At all levels students should spend at least 70 percent of physical education class time participating in moderate to vigorous physical activity.

Daily Recess. All elementary school students should have at least 20 minutes a day of supervised recess, preferably outdoors, during which schools should encourage moderate to vigorous physical activity.

Physical Activity Opportunities Before and After School. Opportunities for student participation in intramural and interscholastic sports programs at the middle and high school levels should provide a range of activities that meet a wide range of interests, and abilities so as to encourage participation by all students.

After-school child care and enrichment programs should provide and encourage daily periods of moderate to vigorous physical activity for all participants.

Use of School Facilities Outside of School Hours. In accordance with Policy KG-School Facility Use, school spaces and facilities are available to students, staff, community members, agencies and organizations before, during, and after the school day, on weekends, and during school vacations.

V. Monitoring and Policy Review

Monitoring. The superintendent will be responsible for ensuring compliance with the school district's wellness policy. The principal, or designee, in each school will ensure compliance at his/her school and report on the school's compliance to the superintendent. The administrator in charge of the district's food service program will ensure compliance with nutrition policies within school food service areas and will report on this matter to the superintendent. This report will include a review of the most recent USDA School Meals Initiative (SMI) review findings and any resulting changes.

The superintendent will develop an initial wellness baseline report during the first year of the policy's implementation and thereafter complete a wellness monitoring report every three years on district-wide compliance with the district's wellness policy. Those reports will identify the nutrition and physical activity environments at each school at the time of the reports.

The wellness report will be provided to the school board and also distributed to the school health council, student groups, parent/teacher organizations, school principals, and school health services personnel in the district.

Policy Review. The school health council will use the wellness reports to routinely review compliance, assess progress and determine areas in need of improvement. The school wellness council will be responsible for recommending periodic wellness policy revisions to the school board.

Appendix B: Community Survey

Platteville City and Town

2009 Comprehensive Plan Update

Dear Resident or Property Owner,

Thank you for taking our survey! When you respond, you will be entered into a drawing to win $50 at Platteville Businesses.

We have invited every household in Platteville to take this survey. We want to learn more about residents' thoughts on land use, community services, and your vision for our future. Your anonymous answers will be used to update to our long-term community plan (our Comprehensive Plan).

Please respond to this survey for your entire household. We are only able to include one survey/household in our results.

Please take a few minutes to carefully complete the survey and return it in the envelope provided. When completing the survey you should use a **No. 2 pencil or black pen**.

- **Why should I fill out this survey?** To help us better provide you with the services and sense of community that you desire.
- **Do I have to fill in all the questions?** The more information you provide, the more accurate and useful our analysis will be. All information is confidential.
- **How do I return my survey?** Please mail it in the return envelope provided. No additional postage is required.
- **What is the deadline?** Please mail the survey by Friday May 1, 2009.

This project is a cooperative effort sponsored by the Town of Platteville, City of Platteville, Platteville School District, and UW-Platteville. We appreciate your time and look forward to your responses. Key findings will be reported to the public as soon as they are available via local media and the City of Platteville website www.platteville.org. If you have additional questions, feel free to contact the City Community Planning office at (608) 348-9741x235.

Thank You!

Pioneering the Good Life
PLATTEVILLE
WISCONSIN

Appendix B: Community Survey

Platteville City and Town

2009 Comprehensive Plan Update

Household Number*: ___ ___ ___ ___

***Please be sure to enter your household number here**. We will use this number to enter you into a drawing to win $50 at Platteville businesses as well as keep track of non-respondents. Your household should have received a postcard inviting you to take this survey - this postcard contains your four-digit household number. If you didn't receive the postcard by April 10th, please call (608) 342-1636 and speak with Amy to receive your household number.

1. Rank the importance of the following factors in your decision to live in the Platteville-area.

Like this: ● Not like this: ✓ ✗ /

	Very Important	Somewhat Important	No Opinion	Somewhat Unimportant	Very Unimportant
Relatives and/or friends	O	O	O	O	O
Affordable housing	O	O	O	O	O
Employment opportunity(s)	O	O	O	O	O
The quality of public K-12 schools	O	O	O	O	O
Safety	O	O	O	O	O
Small-town atmosphere	O	O	O	O	O
University-community	O	O	O	O	O
"Cultural center" of Southwestern WI	O	O	O	O	O
Geographic location	O	O	O	O	O
Health care/senior care	O	O	O	O	O
Attending local college/university	O	O	O	O	O

2. Do you agree that Platteville City or Township should create the following?

	Strongly Agree	Somewhat Agree	No Opinion	Somewhat Disagree	Strongly Disagree
Additional bike and walking paths throughout the City	O	O	O	O	O
Additional sidewalks throughout the City	O	O	O	O	O
Additional indoor recreational facilities	O	O	O	O	O
Additional outdoor recreational facilities	O	O	O	O	O
Additional recreational programs	O	O	O	O	O
A cultural resource center (e.g. a performing arts center, art gallery, interpretive center)	O	O	O	O	O
Expanded library facilities	O	O	O	O	O
Expanded library services	O	O	O	O	O
Community programming on public access television	O	O	O	O	O
Community programming video streamed on the internet	O	O	O	O	O
Community educational programming (workshops or guest speakers) on municipal-related topics	O	O	O	O	O
A large cultural event or festival in the Platteville area	O	O	O	O	O
Regional intercity bus system	O	O	O	O	O
Truck route bypass (Highway 80 & 81)	O	O	O	O	O
Standards for how new residential buildings look	O	O	O	O	O

3. Please name another small city that you feel has a vibrant and attractive downtown:

Platteville City and Town

2009 Comprehensive Plan Update

Like this: ● Not like this: ✓ ✗ /

4. Please rate your satisfaction with the following:

	Very Satisfied	Somewhat Satisfied	No Opinion	Somewhat Unsatisfied	Very Unsatisfied
Police protection	O	O	O	O	O
Fire protection	O	O	O	O	O
Emergency medical services	O	O	O	O	O
Health care services	O	O	O	O	O
Water and sewer services	O	O	O	O	O
Internet service	O	O	O	O	O
Public Education (K-12) facilities	O	O	O	O	O
Public Education (K-12) services	O	O	O	O	O
Post-secondary education	O	O	O	O	O
Trash/garbage removal services	O	O	O	O	O
Recycling services	O	O	O	O	O
Condition of sidewalks	O	O	O	O	O
Condition of major roads (i.e. Business 151 and Hwy 80)	O	O	O	O	O
Condition of City streets	O	O	O	O	O
Condition of Township roads	O	O	O	O	O
Quality of parks	O	O	O	O	O
Quantity of parks	O	O	O	O	O
Public library services	O	O	O	O	O
City snow removal	O	O	O	O	O
Township snow removal	O	O	O	O	O
Storm water drainage	O	O	O	O	O
Taxi service in Platteville	O	O	O	O	O
Campus-area parking	O	O	O	O	O
Downtown parking	O	O	O	O	O
Retail options	O	O	O	O	O
Dining options	O	O	O	O	O
Entertainment options	O	O	O	O	O
The attractiveness of Downtown	O	O	O	O	O
Maintenance of residential properties within your neighborhood	O	O	O	O	O
Affordable home ownership opportunities	O	O	O	O	O
Affordable housing rental opportunities	O	O	O	O	O
Employment opportunities	O	O	O	O	O
Senior services and activities	O	O	O	O	O
Youth activities	O	O	O	O	O

Platteville City and Town

2009 Comprehensive Plan Update

Like this: ● Not like this: ✓ ✗ /

5. Please tell us whether you agree that the City and/or Township should do the following:

	Strongly Agree	Somewhat Agree	No Opinion	Somewhat Disagree	Strongly Disagree
Construct all new municipal buildings to be environmentally friendly	O	O	O	O	O
Increase population density within the City before extending the city limits	O	O	O	O	O
Increase population density near the UWP Campus to accommodate student needs	O	O	O	O	O
Allow non-farm developments to occur on high-quality agricultural land	O	O	O	O	O
Locate new housing developments adjacent to existing housing developments	O	O	O	O	O
Promote green space in all new developments	O	O	O	O	O
Connect all residential developments to one another with walking/biking paths, outdoor recreational trails, or parks	O	O	O	O	O
Encourage more affordable home ownership options	O	O	O	O	O
Encourage more affordable rental options	O	O	O	O	O
Increase the commercial density before extending the city limits	O	O	O	O	O
Require streets to interconnect between developments	O	O	O	O	O

6. Please rate your agreement with the following statements:

	Strongly Agree	Somewhat Agree	No Opinion	Somewhat Disagree	Strongly Disagree
We have a safe community	O	O	O	O	O
I try to buy products and services locally	O	O	O	O	O
I can find most products and services that I need in Platteville	O	O	O	O	O
Downtown businesses are open during the hours that I like to shop	O	O	O	O	O
On-street parking near UWP should have time restrictions	O	O	O	O	O
More parking opportunities should be provided for commuter students	O	O	O	O	O
The City should pay for the cost sidewalk installation in conjunction with street reconstruction projects	O	O	O	O	O

7. What do you believe makes Platteville a unique community?

Platteville City and Town

2009 Comprehensive Plan Update

Like this: ● Not like this: ✓ ✗ /

8. Please rate your agreement with the following statements:

	Strongly Agree	Somewhat Agree	No Opinion	Somewhat Disagree	Strongly Disagree
Tourism is important to our community	O	O	O	O	O
The industry park is a successful project	O	O	O	O	O
The new east-side commercial district has had a positive impact on the community	O	O	O	O	O
Downtown improvements have benefitted the community	O	O	O	O	O
I often choose to drive because I don't feel safe walking or biking	O	O	O	O	O
Sidewalks and streets are well-suited for walking	O	O	O	O	O
Sidewalks and streets are well-suited for biking	O	O	O	O	O
The City should require sidewalks on both side of the street in all residential neighborhoods	O	O	O	O	O
The UWP, City, and Township should cooperate and coordinate on major plans and projects	O	O	O	O	O
The UWP, City, and Township are doing an adequate job of cooperating and coordinating with one another	O	O	O	O	O
Parks and recreational activities (e.g. softball league, swimming lessons) provided by the City are very important	O	O	O	O	O
Preserving historic homes and buildings is very important	O	O	O	O	O
Protecting and preserving farmland is very important	O	O	O	O	O
UWP should provide more on-campus housing	O	O	O	O	O
UWP should partner with the City to promote more off-campus housing	O	O	O	O	O
The airport supports economic development in the area	O	O	O	O	O
The Platteville walking / biking trail system should be expanded	O	O	O	O	O
Platteville has a small-town atmosphere	O	O	O	O	O

9. Please name two (2) types of businesses that you would like to see established in Platteville:

1) _____

2) _____

10. What would you like Platteville to look like in ten years?

11. Please write any other thoughts or comments about the future of Platteville City or Township, here:

Platteville City and Town

2009 Comprehensive Plan Update

Respond to the following questions based upon your PRIMARY residence.
(e.g. Where you currently live more than 50% of the time)

Where do you live? Mark (●) ONE. O City of Platteville O Town of Platteville O Other

How many years have you lived in the Platteville-area? Mark (●) ONE.

O Less than 1 year O 1-2 O 3-5 O 6-10 O 11-20 O 20 +
O Do not live in Platteville-area, and never have O Do not live in Platteville-area, but have in the past

Which of the following best describes your residence? Mark (●) ONE.

O Single-Family House O Duplex O Condo O Apartment O Campus Residence Halls O Other

Do you own or rent? O Own O Rent O Other

How many acres, including your house and any farmland, do you own? Mark (●) ONE.

O Less than 1 acre O 1-5 O 6-35 O 36-100 O 101 + O Don't own

By age, how many people live in your household?
(mark (●) ONE per age category)

	None	One	Two	Three	Four or more
< 5 years	O	O	O	O	O
5-9 years	O	O	O	O	O
10-14 years	O	O	O	O	O
15-17 years	O	O	O	O	O
18 & older	O	O	O	O	O

What is *your* age?

< 18	O
18-24	O
25-44	O
45-64	O
65 or over	O

Your gender?

Female O
Male O

Are you currently a college student? Mark (●) ONE. O No O Yes, part-time O Yes, full-time

What is the highest level of formal education you have completed? Mark (●) ONE.

O Grade 11 or less O Associate/Tech Degree O Graduate School
O High School O 4 Year College O Post Graduate School

What is your household's annual income (Optional)? Mark (●) ONE.

O under $15,000 O $35,000 - $49,999 O $100,000 - $149,999
O $15,000 - $24,999 O $50,000 - $74,999 O $150,000 - $199,999
O $25,000 - $34,999 O $75,000 - $99,999 O over $200,000

Thank you for participating in this survey. Please return this completed questionnaire in the enclosed postage-paid envelope by Friday May 1, 2009 to: ***SWWRPC- One University Plaza, 719 Pioneer Tower, Platteville, WI 53818***

This survey is a cooperative effort sponsored by the City of Platteville, Town of Platteville, Platteville School District, and UW-Platteville.
Assistance provided by Southwestern Wisconsin Regional Planning Commission.

Platteville Community Survey Report - 2009

Background

This report summarizes results from the Community Survey conducted as part of the Town and City of Platteville Comprehensive Plan Update. The survey was administered in spring of 2009. All property owners and renters in the City and Town of Platteville, WI received a postcard invite with a private household number on it. Residents were instructed to visit the City website (www.platteville.org) where they could enter their household number and begin to take the online survey. For those who preferred to not use an Internet survey, or those who could not use one, Residents were given a local phone number they could call to receive a paper survey in the mail with return postage included. All University of Wisconsin-Platteville students were invited by email.

The survey was available online for approximately six weeks. A reminder postcard was sent to non-respondents after three weeks. Respondents were entered in a raffle to win $50 at local businesses as an incentive.

Survey questions were created by a sub-committee of the Platteville Town and City Comprehensive Plan Update Committee.

Response Rate

Overall: 15.5% (N=1755)

- College Students- n=1231
- Non-College Residents- n=588
- City Residents- n=1153
- Town Residents- n=162

The following report is an exceprt of the full Community Survey Report. The full report is available for download online, at:
http://www.swwrpc.org/complan/grant/platteville.php

Source: City of Platteville, SWWRPC

Transit

Questions

Do you agree that Platteville City or Township should create the following:

- Additional bike and walking paths throughout the City
- Additional sidewalks throughout the City
- Regional intercity bus system

Please rate your satisfaction with the following:

- Condition of sidewalks
- Condition of major roads (i.e. Business 151 and Hwy 80)
- Condition of City streets
- Condition of Township roads
- Taxi service in Platteville

Please rate your agreement with the following statement:

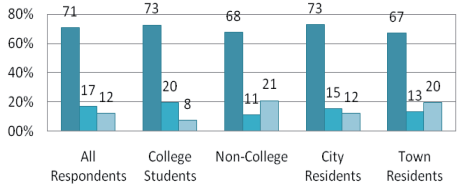
- The City should pay for the cost of sidewalk installation in conjunction with street reconstruction projects
- The City should require sidewalks on both sides of the street in all residential neighborhoods
- Sidewalks and streets are well-suited for biking
- Sidewalks and streets are well-suited for walking
- The Platteville walking/biking trail system should be expanded
- Platteville has a small-town atmosphere
- We have a safe community

Summary

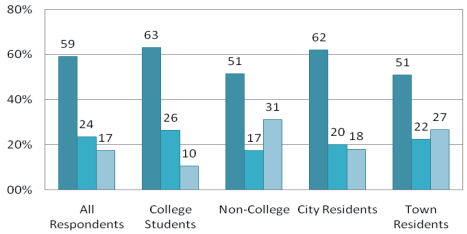
- Respondents overall agreed that additional bike and walking paths (71%) and sidewalks (59%) should be created throughout the City. Respondents agreed that additional sidewalks should be paid for as part of street reconstruction projects (65%).
- 65% of respondents agreed that the Platteville walking/biking trail system should be expanded.
- College students agreed that sidewalks should be required on both sides of the street in all residential neighborhoods (54%), while 57% of non-college respondents DISAGREE with this statement.
- Respondents tended to agree that sidewalks and streets are well-suited for walking, but not for biking.
- Respondents reported satisfaction / unsatisfaction with:
    - Condition of sidewalks (56% / 31%)
    - Condition of major roads (71% / 18%)
    - Condition of City streets (43% / 48%)
    - Condition of Township roads (41% / 27%)
- Respondents slightly agreed that they would like to have a regional intercity bus system.
- Overall, respondents had no opinion on the local taxi service.
- Overwhelmingly, respondents believed that Platteville has a small-town atmosphere (90%) and is a safe community (94%).

Transit

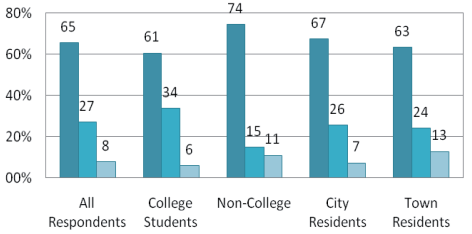
Do you agree that Platteville City or Township should create the following?
Additional bike and walking paths throughout the City



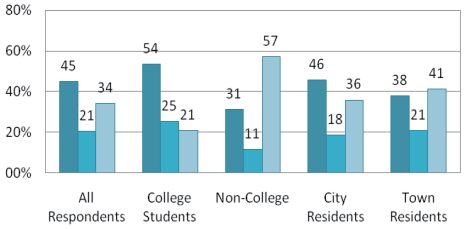
Do you agree that Platteville City or Township should create the following?
Additional sidewalks throughout the City



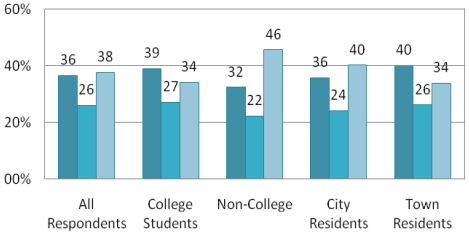
Please rate your agreement with the following statement:
The City should pay for the cost of sidewalk installation in conjunction with street reconstruction projects



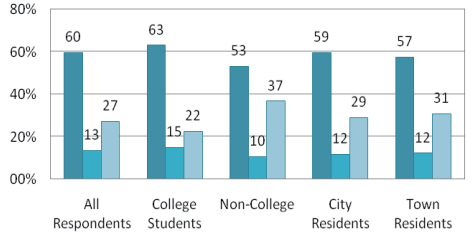
Please rate your agreement with the following statement:
The City should require sidewalks on both sides of the street in all residential neighborhoods



Please rate your agreement with the following statement:
Sidewalks and streets are well-suited for biking



Please rate your agreement with the following statement:
Sidewalks and streets are well-suited for walking



RESPONSE RATE: 15.5%
Number of Responses: 1755

Response number by group:
College Students- 1231
Non-College Respondents- 588
City Residents- 1153
Non-City Residents- 162

Note: Numbers in graphs above represent percentages.

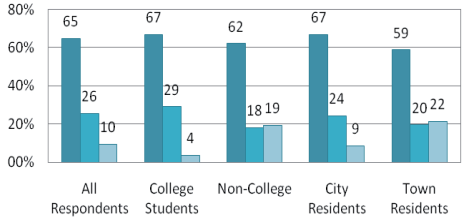
Agree / Satisfied
No Opinion / No Opinion
Disagree / Unsatisfied

Source: City of Platteville, SWWRPC

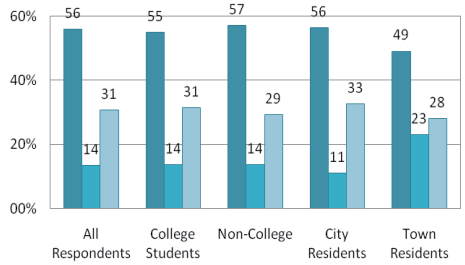
SouthWestern Wisconsin Regional Planning Commission

Transit

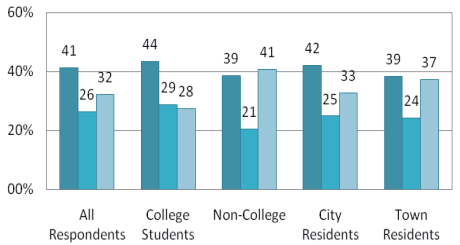
Please rate your agreement with the following statement:
The Platteville walking/biking trail system should be expanded



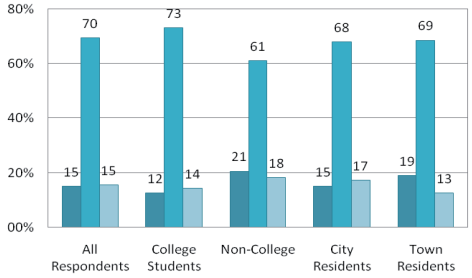
Please rate your satisfaction with the following:
Condition of sidewalks



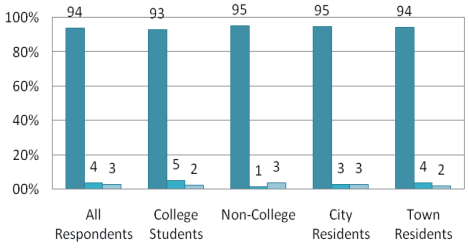
Do you agree that Platteville City or Township should create the following?
Regional intercity bus system



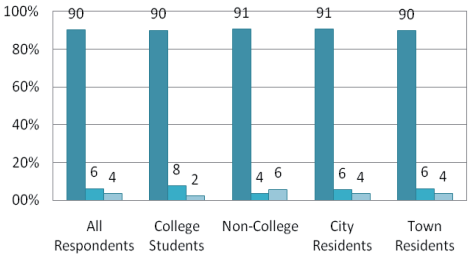
Please rate your satisfaction with the following:
Taxi service in Platteville



Please rate your agreement with the following statement:
We have a safe community



Please rate your agreement with the following statement:
Platteville has a small-town atmosphere



RESPONSE RATE: 15.5%
Number of Responses: 1755

Response number by group:
College Students- 1231
Non-College Respondents- 588
City Residents- 1153
Non-City Residents- 162

Note: Numbers in graphs above represent percentages.

Agree
No Opinion
Disagree
Satisfied
No Opinion
Unsatisfied

SouthWestern Wisconsin Regional Planning Commission

Source: City of Platteville, SWWRPC

Appendix D: Parent Survey

St. Mary's School

Dear Parent or Caregiver:

Your child's school wants to learn your thoughts about children walking and biking to school. This survey will take about 5-10 minutes to complete. We ask that each family complete only one survey per school your children attend. If more than one child from a school brings a survey home, **please fill out this survey for the child with the next birthday from today's date.**

After you have completed this survey, send it back to the school with your child or give it to the teacher. Your responses will be kept confidential and neither your name nor your child's name will be associated with any results. **Thank you for participating in this survey, and thank you to those of you who participated in this same survey last year. Your response each year will help us gauge how we are doing at encouraging students to bike and walk in Platteville.**

Like this: ● Not like this: ✓ ✗ /

Tell us about the child who brought home this survey: *Mark (●) ONE.*

Grade Level: O K O 1st O 2nd O 3rd O 4th O 5th O 6th O 7th O 8th

Gender: O Male O Female

How many children does your household have in kindergarten through 8th grade? *Mark (●) ONE.*

O 1 O 2 O 3 O 4 O 5 O 6 O 7+

Approximately how far does your child live from school? *Mark (●) ONE.*

O < .25 miles
O .25-.49 miles
O .5-.9 miles
O 1-1.9 miles
O > 2 miles

At what grade would you allow your child to walk or bike without an adult to/from school? *Mark (●) ONE.*

O K O 1st O 2nd O 3rd O 4th O 5th O 6th O 7th O 8th O I would not feel comfortable doing this at any grade.

On most days, how does your child get to and from school? *Mark (●) ONE for each category.*

	To School	From School
Walk	O	O
Bike	O	O
School Bus	O	O
Carpool	O	O
Family Vehicle *(with only family members)*	O	O
School Shuttle	O	O
Combination *(ex. Walk & Shuttle)*	O	O

Approximately how long does it normally take your child to get to/from school? *Mark (●) ONE for each category.*

	To School	From School
< 5 Min.	O	O
5-10 Min.	O	O
11-20 Min.	O	O
> 20 Min.	O	O
Don't know / Not Sure	O	O

Appendix D: Parent Survey

Which of the following issues affected your decision to allow, or not allow, your child to walk or bike to/from school? *Mark (●) ONE for each category.*	Allow	Not Allow*	*If you selected "not allow," would you probably let your child walk or bike to school if this problem were changed or improved?* Yes	No	Not Sure
Distance	O	O	O	O	O
Convenience of driving	O	O	O	O	O
Time	O	O	O	O	O
Child's before or after-school activities	O	O	O	O	O
Speed of traffic along route	O	O	O	O	O
Amount of traffic along route	O	O	O	O	O
Adults to walk or bike with	O	O	O	O	O
Sidewalks or pathways	O	O	O	O	O
Safety of intersections and crossings	O	O	O	O	O
Crossing guards	O	O	O	O	O
Violence or crime	O	O	O	O	O
Weather or climate	O	O	O	O	O

In your opinion, how much does your child's school encourage or discourage walking and biking to/from school? *Mark (●) ONE for each category.*	Walking	Biking
Strongly Encourage	O	O
Encourage	O	O
Neither	O	O
Discourage	O	O
Strongly Discourage	O	O

How much FUN is walking or biking to/from school for your child? *Mark (●) ONE for each category.*	
Very Fun	O
Somewhat Fun	O
Indifferent	O
Somewhat Not Fun	O
Very Not Fun	O

How HEALTHY do you believe walking or biking to/from school is for your child? *Mark (●) ONE for each category.*	
Very Healthy	O
Somewhat Healthy	O
Indifferent	O
Somewhat Not-Healthy	O
Very Unhealthy	O

Has your child asked you for permission to walk or bike to / from school in the last year? O Yes O No

Please write any comments here:

Please draw your preferred walking/biking route to school on the below map *(each star represents a school).*

Thank you!

Executive Summary

Background

As part of the Platteville Safe Routes to School Program in Platteville, WI, a short survey was administered to parents of every kindergarten through 8th grade student in Platteville (Neal Wilkins Elementary, Westview Elementary, Platteville Middle School, and St. Mary's). Each school sent a paper copy of the survey home with every student. Students were to ask his or her parent to fill in the survey. Students then returned the survey to their respective schools when completed.

Survey's were administered during the end of April through early May, 2009 and there was a 28% response rate, or 242 responses. Survey's were tabulated and analyzed by Southwest Wisconsin Regional Planning Commission (SWWRPC), consultant for the Platteville Safe Routes to School Program.

In 2007 a nearly identical survey was administered to the same audience so that Platteville Schools and the Safe Routes to School program may monitor their impact overtime.

About Safe Routes to School

Safe Routes to School (SRTS) programs are sustained efforts by parents, schools, community leaders and local, state, and federal governments to improve the health and well-being of children by enabling and encouraging them to walk and bicycle to school.

SRTS programs examine conditions around schools and conduct projects and activities that improve safety and reduce traffic and air pollution in the vicinity of schools. As a result, these programs make bicycling and walking to school a safer and more appealing transportation choice thus encouraging a healthy and active lifestyle from an early age.

The implications of SRTS can be far-reaching. Safe Routes programs can improve safety not just for children, but for a community of pedestrians and bicyclists. They provide opportunities for people to become more physically active and to rely less on their cars. Programs benefit the environment and a community's quality of life by reducing traffic congestion and motor vehicle emissions.

Response Rate

Overall: 28% (N=242)

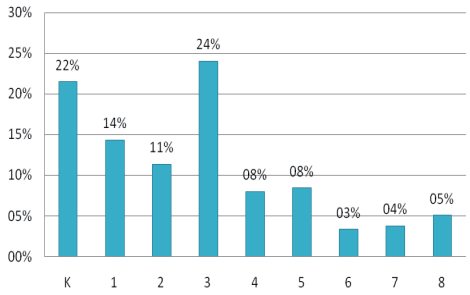
- Neal Wilkins Elementary: 35% (n=87)
- Westview Elementary: 49% (n=84)
- Platteville Middle School: 11% (n=49)
- St. Mary's: 31% (n= 22)

Findings

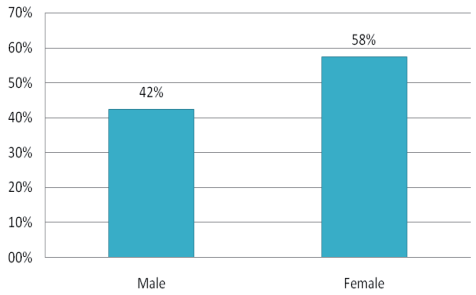
- Parents believe walking and biking is more fun than not for their children.
- Parents believe walking and biking is very healthy for their children.
- School District: Parents believed that Platteville schools neither encouraged nor discouraged walking and biking.
- Most children have not asked their parents for permission to walk or bike to school.
- The vast majority of children get to and from by school bus or family vehicle.
- The strongest deterrents for parents to allow their child to walk or bike to school include: Amount (83%) and speed (82%) of traffic along their route, weather or climate (79%), violence or crime (74%), and distance (68%).
- Parents reported that, if the following conditions were changed, they would probably let their child walk or bike to school: Safety of intersections and crossings (61%), sidewalks or pathways (60%), and amount (54%) and speed (51%) of traffic along route.

Demographic Information

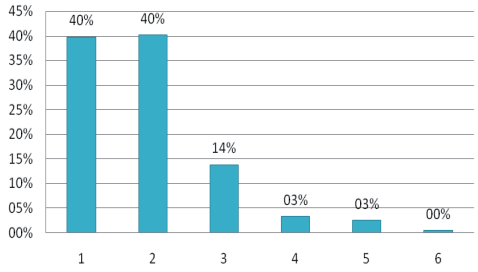
Grade level of child who brought home survey



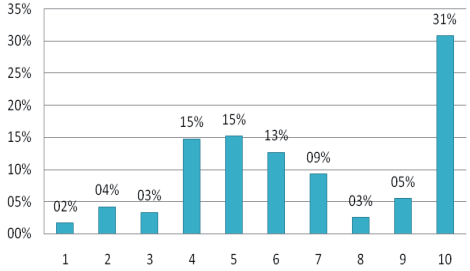
Gender of child who brought home survey



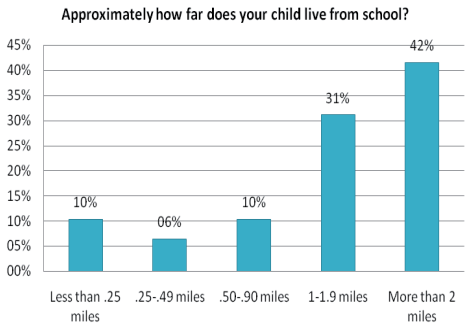
How many children does your household have in Kindergarten through 8th grade?

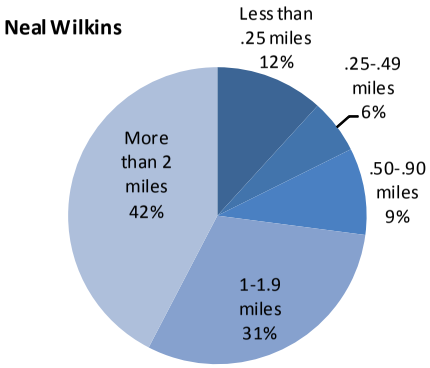


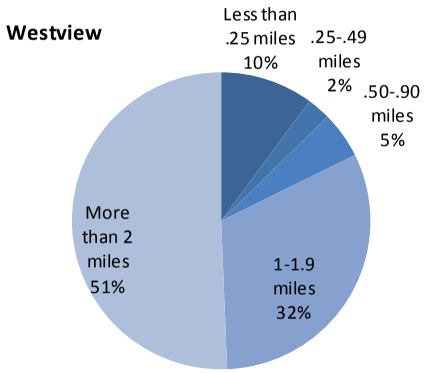
At what grade would you allow your child to walk or bike without an adult to/from school?

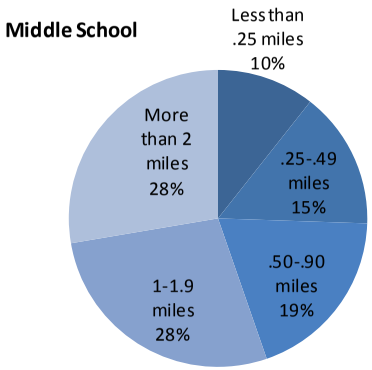


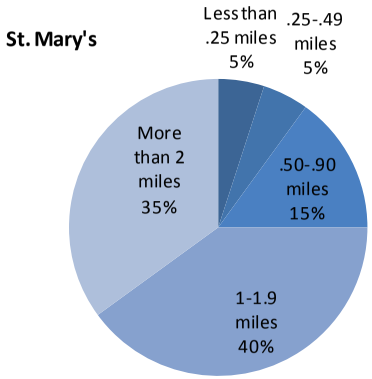
Demographic Information



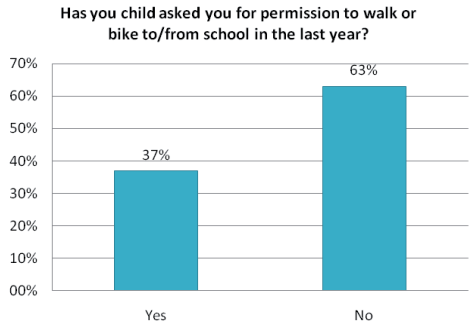


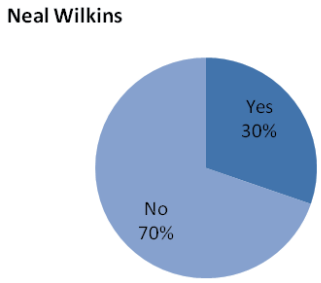


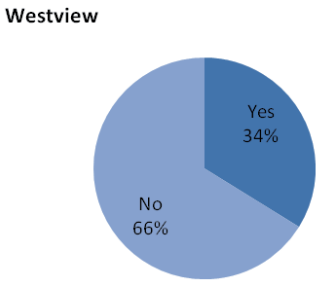


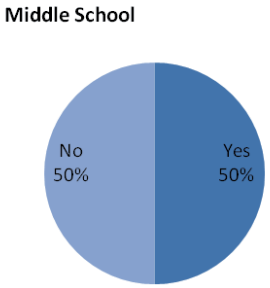


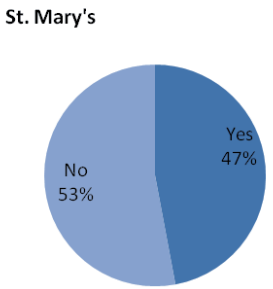
Travel Preferences



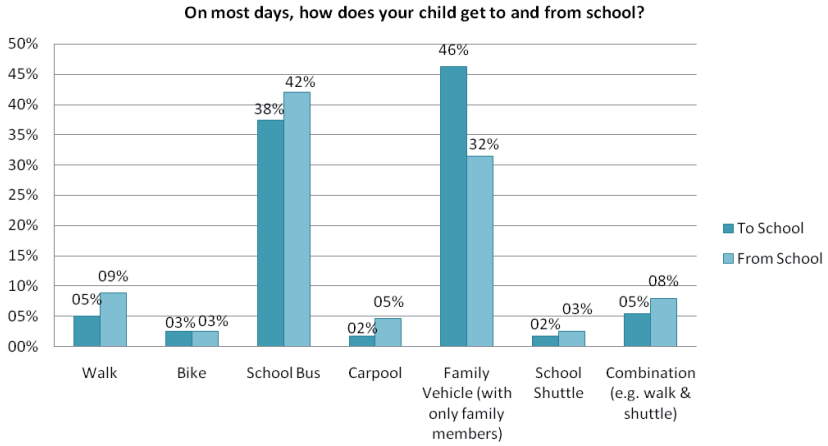


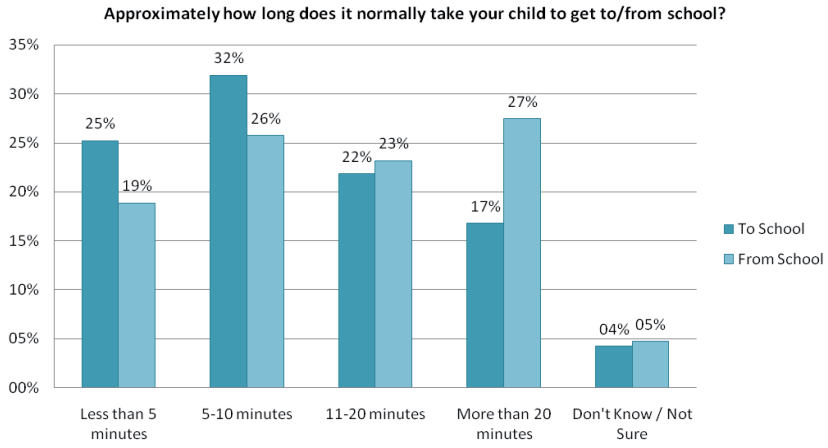






Travel Preferences

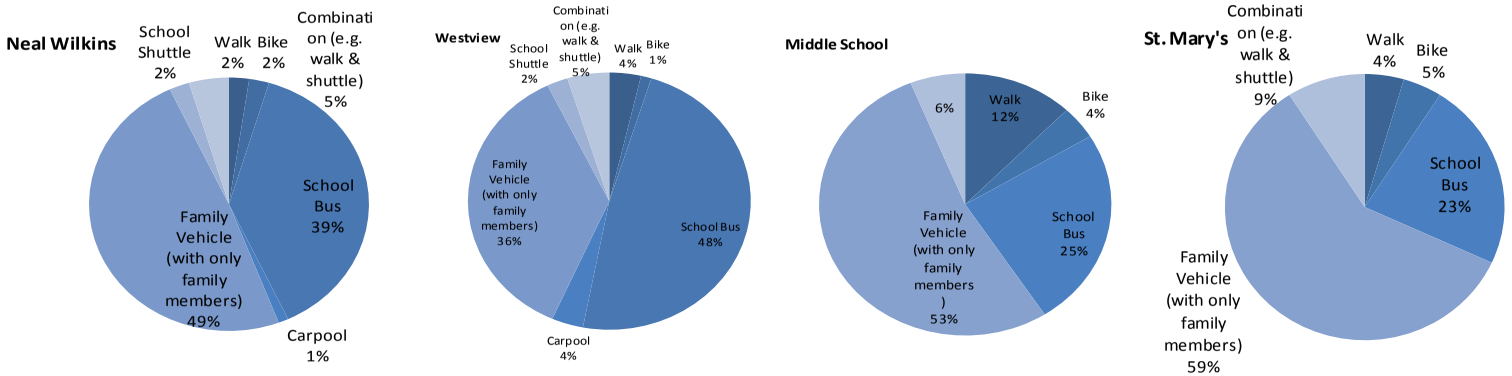




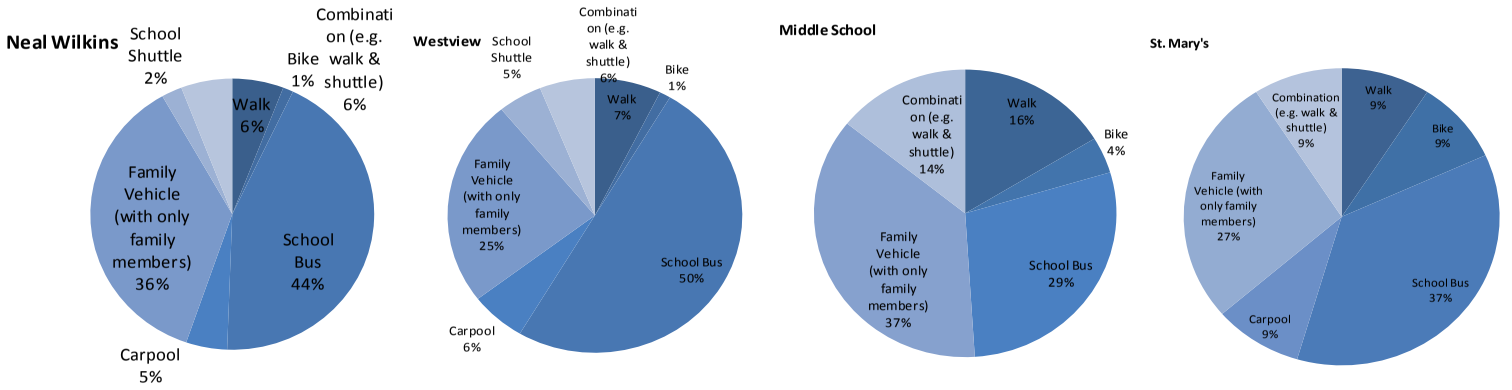
Travel Preferences

On most days, how does your child get to and from school?

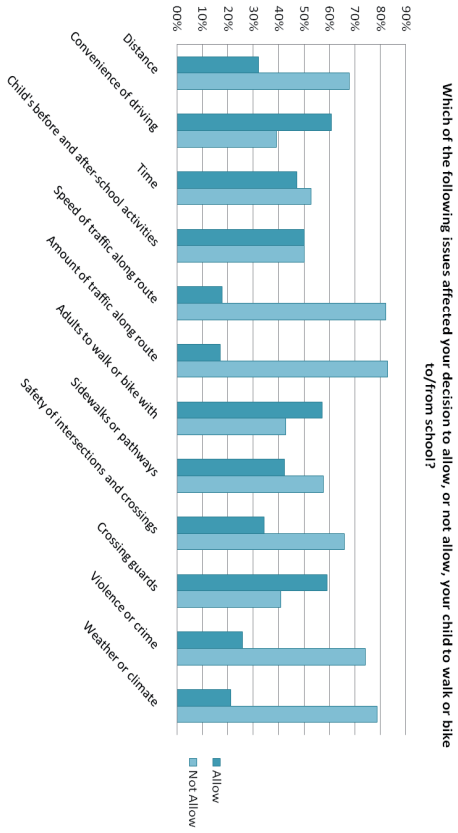
To School

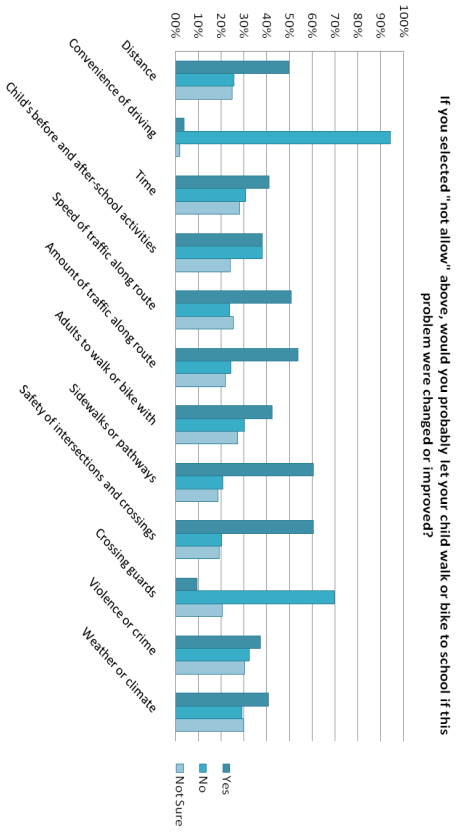


From School

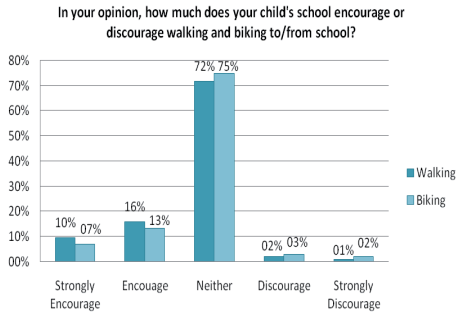


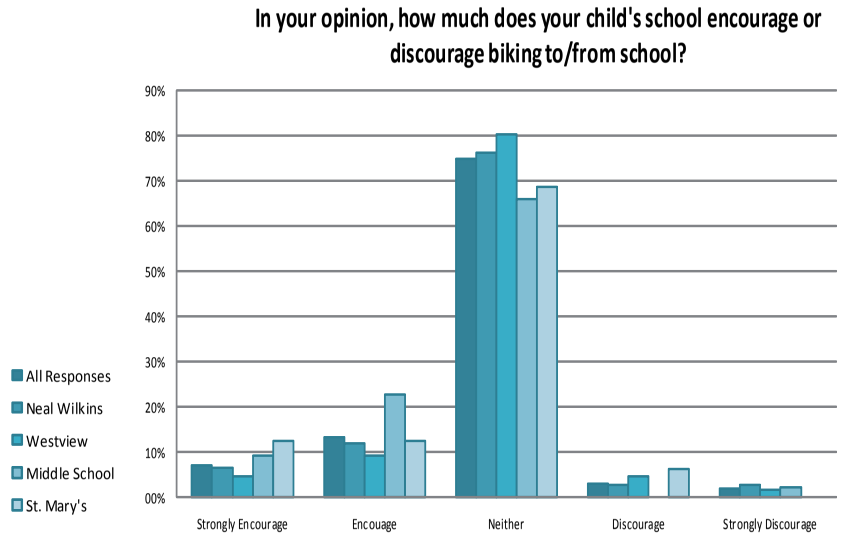
Beliefs

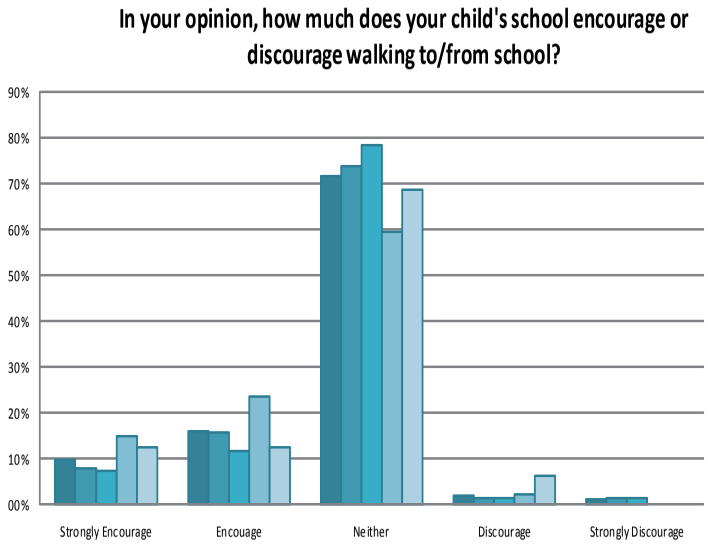

Which of the following issues affected your decision to allow, or not allow, your child to walk or bike to/from school?
Distance
Convenience of driving
Time
Child's before and after-school activities
Speed of traffic along route
Amount of traffic along route
Adults to walk or bike with
Sidewalks or pathways
Safety of intersections and crossings
Crossing guards
Violence or crime
Weather or climate
Allow
Not Allow


If you selected "not allow" above, would you probably let your child walk or bike to school if this problem were changed or improved?
Distance
Convenience of driving
Time
Child's before and after-school activities
Speed of traffic along route
Amount of traffic along route
Adults to walk or bike with
Sidewalks or pathways
Safety of intersections and crossings
Crossing guards
Violence or crime
Weather or climate
Yes
No
Not Sure

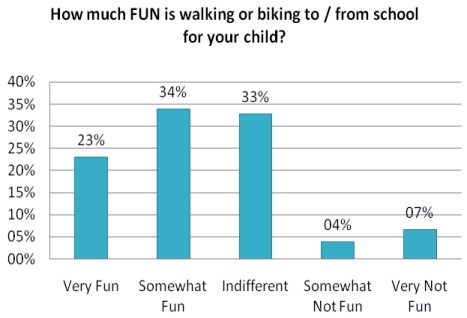
Beliefs

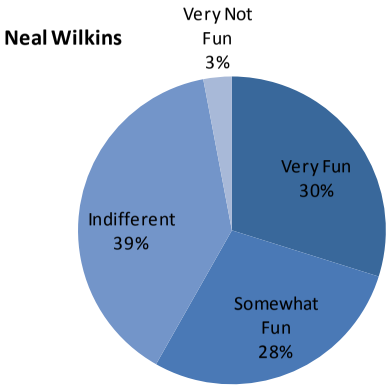

In your opinion, how much does your child's school encourage or discourage walking and biking to/from school?
80%
70%
60%
50%
40%
30%
20%
10%
00%
10%
07%
16%
13%
72%
75%
02%
03%
01%
02%
Strongly Encourage
Encouage
Neither
Discourage
Strongly Discourage
Walking
Biking

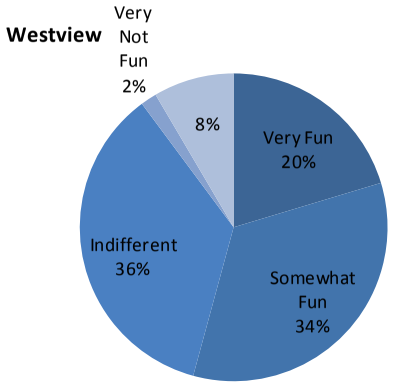

In your opinion, how much does your child's school encourage or discourage biking to/from school?
90%
80%
70%
60%
50%
40%
30%
20%
10%
00%
All Responses
Neal Wilkins
Westview
Middle School
St. Mary's
Strongly Encourage
Encouage
Neither
Discourage
Strongly Discourage

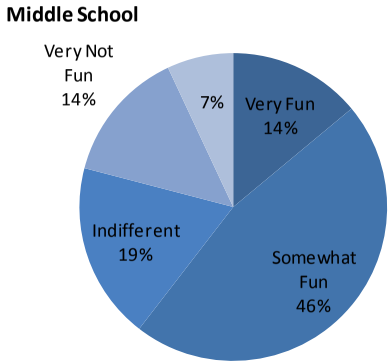

In your opinion, how much does your child's school encourage or discourage walking to/from school?
90%
80%
70%
60%
50%
40%
30%
20%
10%
00%
Strongly Encourage
Encouage
Neither
Discourage
Strongly Discourage

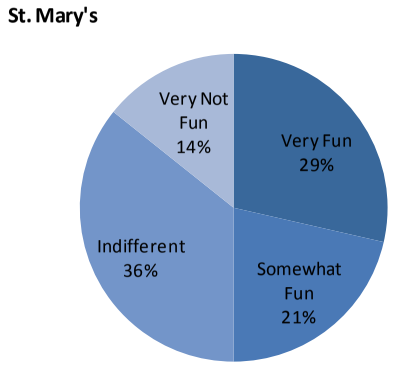
Beliefs


How much FUN is walking or biking to / from school for your child?
40%
35%
30%
25%
20%
15%
10%
05%
00%
23%
34%
33%
04%
07%
Very Fun
Somewhat Fun
Indifferent
Somewhat Not Fun
Very Not Fun

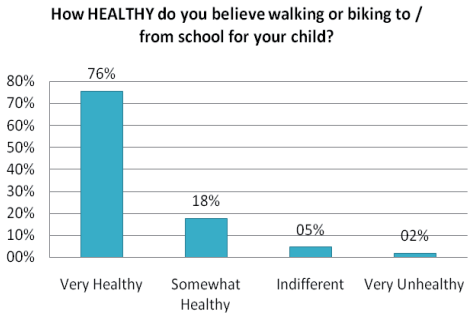

Neal Wilkins
Very Not Fun 3%
Very Fun 30%
Indifferent 39%
Somewhat Fun 28%

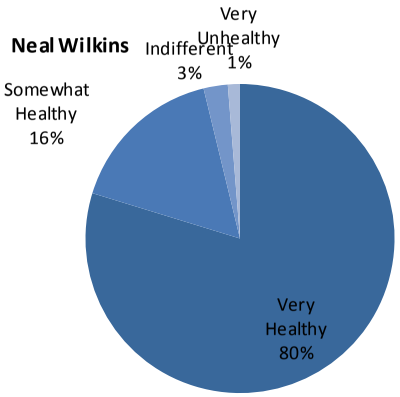

Westview
Very Not Fun 2%
8%
Very Fun 20%
Indifferent 36%
Somewhat Fun 34%

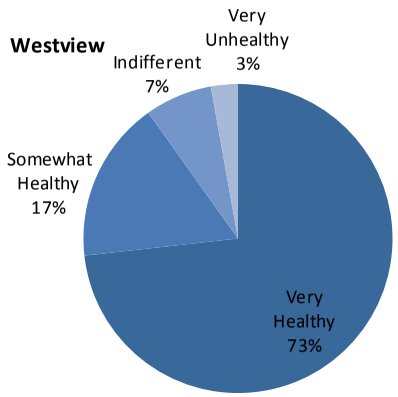

Middle School
Very Not Fun 14%
7%
Very Fun 14%
Indifferent 19%
Somewhat Fun 46%

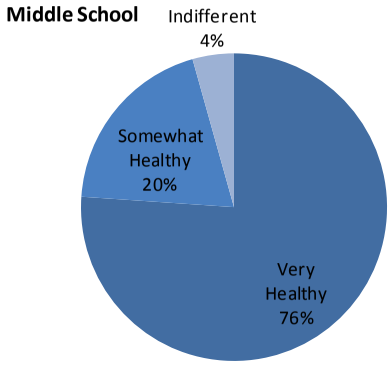

St. Mary's
Very Not Fun 14%
Very Fun 29%
Indifferent 36%
Somewhat Fun 21%

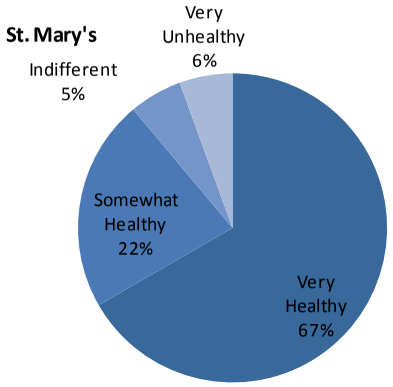
Beliefs


How HEALTHY do you believe walking or biking to / from school for your child?
80%
70%
60%
50%
40%
30%
20%
10%
00%
76%
18%
05%
02%
Very Healthy
Somewhat Healthy
Indifferent
Very Unhealthy


Neal Wilkins
Very Unhealthy 1%
Indifferent 3%
Somewhat Healthy 16%
Very Healthy 80%


Westview
Very Unhealthy 3%
Indifferent 7%
Somewhat Healthy 17%
Very Healthy 73%


Middle School
Indifferent 4%
Somewhat Healthy 20%
Very Healthy 76%


St. Mary's
Very Unhealthy 6%
Indifferent 5%
Somewhat Healthy 22%
Very Healthy 67%

Appendix F: Charrette Summary

Charrette Results – April 25th, 2009

Based upon responses of approximately 40 Community Members

Question 1- Who are the users of the Safe Routes (who bikes and walks in Platteville)	**# of Votes**
Youth, No drivers license (x3)	
People who otherwise can't drive	
Exercisers (x6)	
Shoppers	
Dog Walkers	
Students/children (x8)	1
"everyone" (x4)	23
Parents/families (x3)	22
People headed downtown for Farmer's Market, library, summer concerts, Dairy Days, parades, other downtown events	
All age groups walking	
Middle age groups biking	
Tourists	
School kids-bike trails	
Around UWP-college kids	
Around City-everyone capable	

Question #2 a. What aspects of a route make it safe?	**# of Votes**
Sidewalks (x6)	2
Well-maintained sidewalks	
Crosswalks-good visibility (x3)	2
Stop signs	
Width of sidewalk	
Bike lanes	2
Good signage	
Good visibility of traffic (x2)	6
Offset from street (not too close) (x2)	4
Good lighting (x3)	1
Lots of users	
Paved bike paths	
Crossing guards at school intersections (2)	
Routes away from traffic/road	
High usage	
Controlled speed (x2)	
Ramps for bikes	

Appendix F: Charrette Summary

Charrette Results – April 25th, 2009

Based upon responses of approximately 40 Community Members

Question #2 a. What aspects of a route make it safe?	b. Is there a safe route for you?	**# of Votes**
Off road commute (sidewalks away from street)	For the most part, yes, but 2 busy roads unavoidable	
Good infrastructure	Yes, only cross main st.	5
Surrounding residents		
Signage and signals	Yes, sidewalk accessible	
Low level of traffic	yes	
No hazards (ice, tripping, narrow, etc.)	Yes	
Smooth sidewalk, lighting, pedestrian crosswalks and signing	Yes	
Clearly defined path		
Away from traffic, away from roadway	yes	
Drivers obey laws		
Cars traveling at a safe speed, road well maintained	No, my route poorly maintained roads that are extremely bumpy- must ride further out in roadway at times	

Question #3 What are the benefits of biking and walking in Platteville?	**# of Votes**
Makes in friendlier	8
Encourages healthy lifestyle/exercise	18
Provides nice recreational opportunities	
Helps local economy (use of local businesses, movie theater, grocery, bike sore, coffee shop)	3
Benefits Library (sustainable habits)	
Reduces congestion	4
Gets people off roadways/diverse modes of transportation	5
Cost effective	
Working together	
Make city look nice	

Appendix F: Charrette Summary

Charrette Results – April 25th, 2009

Based upon responses of approximately 40 Community Members

Question #4 What impact does Safe Routes have to you and your community?	**# of Votes**
Parents that have kids in school	
Easier accessibility	12
No personal Effects (but not against)	
Future it might (no kids yet)	
Know a lot of people that actively use the system	
Positive affects	
Good but needs more involvement	
Has no effect	3
Encourages manual transit	
Teaches healthy habits	10
Makes community aware of safety issues	5
Sidewalks need improvement	
Good idea for younger members of community	
Make community safer	
Encourages use of local resources	2
Require new work for people who maintain sidewalks	
Means to fix problems	
Love biking and want to know what routes are safe and convenient for family and children	4

Appendix F: Charrette Summary

Charrette Results – April 25th, 2009

Based upon responses of approximately 40 Community Members

Question 1- Who are the users of the Safe Routes (who bikes and walks in Platteville)	**# of Votes**
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Middle age groups biking	
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Around UWP-college kids	
Around City-everyone capable	

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Crosswalks-good visibility (x3)	2
Stop signs	
Width of sidewalk	
Bike lanes	2
Good signage	
Good visibility of traffic (x2)	6
Offset from street (not too close) (x2)	4
Good lighting (x3)	1
Lots of users	
Paved bike paths	
Crossing guards at school intersections (2)	
Routes away from traffic/road	
High usage	
Controlled speed (x2)	
Ramps for bikes	

Appendix F: Charrette Summary

Charrette Results – April 25th, 2009

Based upon responses of approximately 40 Community Members

Question #2 a. What aspects of a route make it safe?	b. Is there a safe route for you?	**# of Votes**
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Good infrastructure	Yes, only cross main st.	5
Surrounding residents		
Signage and signals	Yes, sidewalk accessible	
Low level of traffic	yes	
No hazards (ice, tripping, narrow, etc.)	Yes	
Smooth sidewalk, lighting, pedestrian crosswalks and signing	Yes	
Clearly defined path		
Away from traffic, away from roadway	yes	
Drivers obey laws		
Cars traveling at a safe speed, road well maintained	No, my route poorly maintained roads that are extremely bumpy- must ride further out in roadway at times	

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Gets people off roadways/diverse modes of transportation	5
Cost effective	
Working together	
Make city look nice	

Appendix F: Charrette Summary

Charrette Results – April 25th, 2009

Based upon responses of approximately 40 Community Members

Question #4 What impact does Safe Routes have to you and your community?	**# of Votes**
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Positive affects	
Good but needs more involvement	
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Encourages manual transit	
Teaches healthy habits	10
Makes community aware of safety issues	5
Sidewalks need improvement	
Good idea for younger members of community	
Make community safer	
Encourages use of local resources	2
Require new work for people who maintain sidewalks	
Means to fix problems	
Love biking and want to know what routes are safe and convenient for family and children	4

Appendix G: Model Bike Ordinance

Santa Cruz California Bicycle Parking Ordinance

Full text available at: *http://www.codepublishing.com/CA/SantaCruz/*

24.12.250 Bike Parking Requirements

1. Bicycle parking facilities shall be provided for any new building, addition or enlargement of an existing building, or for any change in the occupancy of any new building that results in the need for additional auto parking facilities consistent with the parking variations allowed by section 24.12.290(6) of this part.

2. Bike Spaces Required.

Bicycle parking facilities shall be provided in accordance with the following schedule, with fractional requirements for bike parking over .5 to be rounded up:
a. Commercial; Industrial, Office, Retail, Service -- 2+15% of number of auto spaces required
b. Multi-Family Residential -- 3 or more units, 1 space per unit
c. Public, or Commercial Recreation -- 35% of auto parking requirement
d. Schools -- 1 space per 3 students
e. Park and Ride Lots and Transit Centers -- 35% of auto parking
f. Lodging -- 1 space per 5 units

3. Type of bicycle parking required.

Each bicycle parking space shall be no less than six feet long by two feet wide (6'X2') and shall have a bicycle rack system in compliance with the bike rack classifications listed in item 4 as follows: Fractional amounts of the type of parking facilities may be shifted as desired.
a. Office, Industrial (Commercial) Financial -- 60% Class 1 / 40% Class 2
b. Retail, Service (Commercial) -- 20% Class 1 / 80% Class 2
c. Multi-Family Residential (3 or more units) -- 100% Class 1 (Garages or secure accessible indoor areas count)
d. Public or Commercial Recreation -- 10% Class 1 / 90% Class 2
e. Schools -- 100% Class 2, Secured, Covered
f. Park and Ride Lots -- 80% Class 1 / 20% Class 2
g. Transit Center -- 100% Class 2, Secured, Covered

4. Classification of Facilities

a. Class 1 bicycle facility means a locker, individually locked enclosure or supervised area within a building providing protection for each bicycles therein from theft, vandalism and weather.
b. Class 2 bicycle facility means a stand or other device constructed so as to enable the user to secure by locking the frame and one wheel of each bicycle parked therein. Racks must be easily usable with both U-locks and cable locks. Racks should support the bikes in a stable upright position so that a bike, if bumped, will not fall or roll down. Racks that support a bike primarily by a wheel, such as standard 'wire racks' are damaging to wheels and thus are not acceptable. (See Bikes Are Good Business Design guidelines).

5. Location and Design of Facilities

a. Bicycle parking should be located in close proximity to the buildings entrance and clustered in lots not to exceed 16 spaces each.
b. Bicycle parking facilities shall support bicycles in a stable position without damage to wheels, frame or other

components.
c. Bicycle parking facilities should be located in highly visible well lighted areas to minimize theft and vandalism.
d. Bicycle parking facilities shall be securely anchored to the lot surface so they cannot be easily removed and shall be of sufficient strength to resist vandalism and theeft.
e. Bicycle parking facilities shall not impede pedestrian or vehicular circulation, and should be harmonius with their environment both in color and design. Parking facilities should be incorporated whenever possible into building design or street furniture.
f. Racks must not be placed close enough to a wall or other obstruction so as to make use difficult. There must be sufficient space (at least 24 inches) beside each parked bike that allows access. This access may be shared by adjacent bicycles. An aisle or other space shall be provided to bicycles to enter and leave the facility. This aisle shall have a width of at least six (6) feet to the front or rear of a bike parked in the facility.
g. Paving is not required, but the outside ground surface shall be finished or planted in a way that avoids mud and dust.
h. Bike parking facilities within auto parking areas shall be separated by a physical barrier to protect bicycles from damage by cars, such as curbs, wheel stops, poles or other similar features.

6. Variations to Requirements

a. Substitution of car parking with bike parking. New and pre-existing developments may convert up to 10% of their auto spaces to unrequired additional bike parking, as long as the spaces are conveniently located near an entrance. Converted parking spaces must yield at least 6 bike parking spaces per auto space.
b. Where the provision of bike parking is physically not feasible the requirements may be waived or reduced to a feasible level by the Zoning Administrator.

Appendix H: Infrastructure Guide

Platteville Safe Routes To School

Guide to Walking and Biking Infrastructure

Full text available online at: http://www.walkinginfo.org

Roadway and Pedestrian Facility Design
- Bicycle Lanes
- Roadway Narrowing
- Lane Reduction
- Raised Medians
- One-Way vs. Two-Way Streets
- Roundabouts
- Sidewalks and Walkways
- Curb Ramps
- Roadway Lighting Improvements
- Street Furniture/Walking Environment

Trail Design
- Rail trails
- Rails with trails

Street Crossings
- Crosswalks
- Curb Radius Reduction
- Improved Right-Turn Slip-Lane Design
- Signals and Signs
- Crossing Enhancements
- Pedestrian Overpasses/Underpasses

Traffic Calming
- Chokers
- Crossing Islands
- Chicanes
- Mini-Circles
- Vertical Devices
- Gateways
- Landscaping
- Specific Paving Treatments
- Serpantine Design
- Shared Street (Green Street)

Traffic Management
- Diverters
- Interstion Median Barriers
- Full Street Closure
- Partial Street Clusure
- Pedestrian Streets/Malls

Designing for Special Pedestrian Populations
- Wheelchair ramp placement and design (ramp slope, side-slope, level landing, cross-walk placement, detectable warning, smooth transitions, etc)
- Clear sidewalk width
- Sidewalk cross-slope
- Street furniture design and placement
- Tactile warning strips at street crossings
- Audible pedestrian signals (for information on accessible pedestrian signals, visit the Acces-sible Pedestrian Signal web site)
- Pedestrian crossing time
- Construction zones and temporary work zones

Source: Walking Info.org
www.walkinginfo.org

Appendix H: Infrastructure Guide

Bike Lanes

Bike lanes indicate a preferential or exclusive space for bicycle travel along an arterial street. Bike lanes have been found to provide more consistent separation between bicyclists and passing motorists. Marking bicycle lanes can also benefit pedestrians—as turning motorist slow and yield more to bicyclists, they will also be doing so for pedestrians.

Bike lanes are typically designated by striping and/or signing. Colored pavement (e.g., blue or red surfaces) is also used in some locations, although it is not yet an accepted MUTCD standard. If the addition of bike lanes results in fewer motor vehicle lanes, safety may be enhanced for pedestrians crossing the street. Bicycle lanes also provide a buffer between motor vehicle traffic and pedestrians when sidewalks are immediately adjacent to the curb. On high-speed, high-volume roads, it may be more appropriate to provide a multi-use path to physically separate both bicyclists and pedestrians from motor vehicle traffic. However, the application of this treatment requires that paths be designed carefully with the latest information on best practices.

Purpose

- Create on-street travel facilities for bicyclists
- Narrow the roadway or travel lane widths to encourage lower motor vehicle speeds
- Provide additional separation between pedestrians and motor vehicles
- Reduce the distance pedestrians must travel to cross automobile lanes

Considerations

- All roads should be evaluated for on-street bicycle facilities.

Estimated cost

- The cost of installing a bike lane is approximately $3,100 to $31,000 per kilometer ($5,000 to $50,000 per mile), depending on the condition of the pavement, the need to remove and repaint the lane lines, the need to adjust signalization, and other factors. It is most cost efficient to create bicycle lanes during street reconstruction, street resurfacing, or at the time of original construction.

Raised Medians

Medians are raised barriers in the center portion of the street or roadway that can serve as a landing place for pedestrians who cross a street midblock or at an intersection location. They may provide space for trees and other landscaping. They also have benefits for motorist safety when they replace continuous center turn lanes. Desired turning movements need to be carefully provided so that motorists are not forced to travel on inappropriate routes, such as residential streets, or make unsafe U-turns.

Continuous medians are not the most appropriate treatment in every situation. In some cases, separating opposing traffic flow and eliminating left-turn friction can increase traffic speeds by decreasing the perceived friction of the roadway. They may also take up space that can be better used for wider sidewalks, bicycle lanes, landscaping buffer strips, or on-street parking and may cause problems for emergency vehicles. In some environments, medians can be constructed in sections, creating an intermittent rather than continuous median. Another good alternative device for two-, three- or four-lane roads is the crossing island, which provides a crossing refuge for pedestrians and, in some designs, aids in decreasing vehicle speeds.

Raised Medians Cont.

Raised medians are most useful on high-volume, high-speed roads, and they should be designed to provide tactile cues for pedestrians with visual impairments to indicate the border between the pedestrian refuge area and the motorized vehicle roadway. Examples of good and bad designs for raised median crossings can be found in Chapter 8 of Designing Sidewalks and Trails for Access: Part II of II: Best Practices Design Guide

Purpose

- Manage motor vehicle traffic and provide comfortable left-hand turning pockets with fewer or narrower lanes
- Provide a landing for pedestrians crossing the street
- Provide space for street trees and other landscaping

Considerations

- Ensure that there is enough room for wider sidewalks, bike lanes, and planting strips before proceeding with construction.
- Landscaping in medians should not obstruct the visibility between pedestrians and approaching motorists.
- Median crossings at midblock and intersection locations must be fully accessible by means of ramps or cut-throughs, with detectable warnings.

\Estimated cost

- The cost for adding a raised median is approximately $15,000 to $30,000 per 30 m ($15,000 to $30,000 per 100 ft), depending on the design, site conditions, and whether the median can be added as part of a utility improvement or other street construction project.

Sidewalks & Walkways

Sidewalks and walkways are “pedestrian lanes” that provide people with space to travel within the public right-of-way that is separated from roadway vehicles. They also provide places for children to walk, run, skate, ride bikes, and play. Sidewalks are associated with significant reductions in pedestrian collisions with motor vehicles. Such facilities also improve mobility for pedestrians and provide access for all types of pedestrian travel: to and from home, work, parks, schools, shopping areas, transit stops, etc. Walkways should be part of every new and renovated facility and every effort should be made to retrofit streets that currently do not have sidewalks.

While sidewalks are typically made of concrete, less expensive walkways may be constructed of asphalt, crushed stone, or other materials if they are properly maintained and accessible (firm, stable, and slip-resistant). In more rural areas, in particular, a “side path” made of one of these materials may be suitable. Both FHWA and the Institute of Transportation Engineers (ITE) recommend a minimum width of 1.5 m (5 ft) for a sidewalk or walkway, which allows two people to pass comfortably or to walk side-by-side. Wider sidewalks should be installed near schools, at transit stops, in downtown areas, or anywhere high concentrations of pedestrians exist. Sidewalks should be continuous along both sides of a street and sidewalks should be fully accessible to all pedestrians, including those in wheelchairs.

A buffer zone of 1.2 to 1.8 m (4 to 6 ft) is desirable and should be provided to separate pedestrians from the street. The buffer zone will vary according to the street type. In downtown or commercial districts, a street furniture zone is usually appropriate. Parked cars and/or bicycle lanes can provide an acceptable buffer zone. In more suburban or rural areas, a landscape strip is generally most suitable. Careful planning of sidewalks and walkways is important in a neighborhood or area in order to provide adequate safety and mobility. For example, there should be a flat sidewalk provided in areas where driveways slope to the roadway.

Sidewalks & Walkways Cont.

Purpose
- Create the appropriate facility for the walking area of the public right-of-way.
- Improve pedestrian safety dramatically.

Considerations
- While continuous walkways are the goal, retrofitting areas without them will usually occur in phases. Lack of a seamless system is no excuse not to provide parts of the system.
- In retrofitting streets that do not have a continuous or accessible system, locations near transit stops, schools, parks, public buildings, and other areas with high concentrations of pedestrians should be the highest priority.
- Street furniture placement should not restrict pedestrian flow.

Estimated cost
- The cost for concrete curbs and sidewalks is approximately $49/linear meter ($15/linear foot) for curbing and $118/square meter ($11/square foot) for walkways. Asphalt curbs and walkways are less costly, but require more maintenance, and are somewhat more difficult to walk and roll on for pedestrians with mobility impairments.

Lighting

Good quality and placement of lighting can enhance an environment as well as increase comfort and safety. Pedestrians often assume that motorists can see them at night; they are deceived by their own ability to see the oncoming headlights. Without sufficient overhead lighting, motorists may not be able to see pedestrians in time to stop.

In commercial areas with nighttime pedestrian activity, streetlights and building lights can enhance the ambiance of the area and the visibility of pedestrians by motorists. It is best to place streetlights along both sides of arterial streets and to provide a consistent level of lighting along a road way. Nighttime pedestrian crossing areas may be supplemented with brighter or additional lighting. This includes lighting pedestrian crosswalks and approaches to the crosswalks.
In commercial areas or in downtown areas, specialty pedestrian-level lighting may be placed over the sidewalks to improve pedestrian comfort, security, and safety. Mercury vapor, incandescent, or less expensive high-pressure sodium lighting is often preferred as pedestrian-level lighting. Low-pressure sodium lights are low energy, but have a high level of color distortion.

Purpose
- Enhance safety of all roadway users, particularly pedestrians
- Enhance commercial districts
- Improve nighttime security

Considerations
- Ensure that pedestrian walkways and crosswalks are well lit.
- Install lighting on both sides of wide streets and streets in commercial districts.
- Use uniform lighting levels.

Estimated cost
- Varies depending on fixture type and service agreement with local utility.

Trail Design

The AASHTO Guide for the Development of Bicycle Facilities (1999) and Trails for the 21st Century have extensive information on how to design trails. Some states also have their own design manuals that match or exceed these guidelines. Some of the most critical design considerations include the following:

Width:

- Trails should be at least 10 feet (12 feet is often preferred) with two feet of clear space on both sides of the trail.

Multi-use:

- Assume pedestrians and bicyclists will use the trail — design for both.

Surface:

- Most urban trails have an asphalt surface which accommodates more user types (e.g. roller bladders); many rural trails have crushed limestone, which is cheaper but may require more maintenance.

Alignment:

- The AASHTO guide provides detailed information on horizontal alignment, curve radii, grade, structures, and other design elements affecting trail alignment.

Intersections:

- Give special attention to intersections since they are where crashes between trail users and motorists are most likely to occur. In addition to following AASHTO, follow the Manual on Uniform Traffic Control Devices (MUTCD) to determine the type of traffic control device to use.

Roadway Separation:

- Sidewalk trails immediately adjacent to roadways are generally discouraged. However, they can be made safe if they are separated from the roadway by at least five feet or a 42 inch high barrier. Again, AASHTO provides excellent guidance on when and where this type of facility is appropriate.

Trail Development Issues

Rail trails can take several years to develop and there are several issues that need to be addressed. For example, property owners adjacent to an old railroad line may be concerned about the possible loss of privacy or noise that may accompany a trail. They may also believe the land belongs to them and that the railroad had only an easement over their property. Fortunately, with more than 1,200 rail trails already on the ground, these issues have been successfully dealt with in the overwhelming majority of cases.

Corridor ownership

Rail corridors can be bought, granted to the railroad company by the Federal government, or pieced together through agreements (easements) with individual property owners. Many corridors have been acquired through a combination of these and other methods. When a railroad no longer wants or needs a corridor, they can abandon the line and, depending on ownership, dispose of the property. The Rails to Trails Conservancy has published a variety of resources on this subject, including Acquiring Rail Corridors and Secrets of Successful Rail Trails: both recommend seeking professional help in negotiating with railroads, property owners, and interested non-profits in turning an old railroad line into a trail.

Railbanking

In 1983, Congress amended the National Trails System Act to create a program called “railbanking” to keep intact the remarkable network of railroad corridors that had been created in the 19th and early 20th century. Congress wanted to save the corridors for future potential rail use and allow their interim use as trails.

When a railroad announces its intention to abandon a corridor, interested groups or agencies can apply to the Surface Transportation Board to have the corridor railbanked and used in the interim as a trail. The program has helped create some of the most spectacular trails in the United States, including the Katy Trail in Missouri, the 320-mile Cowboy Trail in Nebraska, and the Capital Crescent Trail in Washington DC, and it has preserved more than 3,500 miles of corridor for future railroad use. Follow the link to view a PDF on Issues Related to Preserving Inactive Rail Lines as Trails.

Trail Design Cont.

Community concerns

People close to a proposed trail may have concerns about the impact of the new facility on their property, privacy, and peace and quiet. Research and the experience of numerous trails in communities across the country have shown that these fears are usually not realized and can be mitigated through careful trail planning, design, and management.

Crime

People living close to a proposed rail trail often fear an increase in crime and vandalism as a result of people using the trail. Ironically, converting a disused rail corridor to a trail often cleans up untidy wasteland and discourages undesirable behavior by ensuring a steady stream of legitimate users (i.e. walkers, bicyclists, joggers) who self-police the public right-of-way. Trail users also are unlikely burglars. A study by the Rails to Trails Conservancy found that major crimes on rail trails, including rape, murder, and mugging, were "very low" compared to national crime rates.

Property Values

Adjacent property owners fear that a trail will lower the value of their home or property because of the concerns such as crime, increased traffic, and noise. Studies in Denver, Seattle, and other communities indicate that the presence of a trail is either not a factor in the value of a home or adds value. Indeed, there are now countless examples of homes being sold on the strength of their proximity to a regional trail, and national surveys of prospective home buyers have found people want walkways and bikeways far more than golf courses, tennis courts, and other amenities.

Traffic

Popular regional trails attract people from outside the immediate neighborhood of the facility, and they often drive to a trailhead before walking, bicycling, or jogging on the trail. Adequate parking, and the development of safe parking areas, is important for the peaceful operation of a trail, as is integration of the trail into the overall transportation network.

Liability

Property owners may worry about the potential for lawsuits arising from injuries to trail users that may occur on their land (for example, a runner slipping on wet leaves while taking a short cut through a back yard). In almost all states, recreational use statutes protect landowners from such claims.

Crosswalks

The definition of a legal pedestrian crossing varies somewhat from state to state; this one from Florida is typical:

"CROSSWALK: (a) That part of a roadway at an intersection included within the connections of the lateral lines of the sidewalks on opposite sides of the highway, measured from the curbs or, in the absence of curbs, from the edges of the traversable roadway, or (b) Any portion of a roadway at an intersection or elsewhere distinctly indicated for pedestrian crossing by lines or other markings on the surface."

At both signalized and unsignalized intersections, there is an implied (legal) crosswalk for pedestrians at each leg, whether or not the crosswalk is marked. The only time this is not true is when there is a sign clearly prohibiting pedestrians from crossing one or more of the legs. Midblock crossings that are marked may have other physical features and/or signs.

Crosswalks Cont.

Marked crosswalks

Marked crosswalks serve to highlight the right-of-way where motorists can expect pedestrians to cross and designate a stopping or yielding location (some states are stop states, others are yield states). They can also indicate optimal or preferred locations for pedestrians to cross. Various crosswalk marking patterns are given in the MUTCD; however, the "international" (also known as "ladder" or "zebra") markings are strongly preferred, particularly at uncontrolled locations, because they are far more visible, which is particularly important at night or in low light conditions (e.g., rain).

Marked crosswalks should often be installed in conjunction with other enhancements that physically reinforce crosswalks and reduce vehicle speeds, particularly at uncontrolled locations and on more major roads. Examples of these are given in the Crossing Enhancements section. It is also usually useful to supplement crosswalk markings with warning signs for motorists. At some locations, signs can get "lost" in visual clutter, so care must be taken in placement. Further discussion on signs can be found in the Signals and Signs section.

Recommended guidelines and priorities for crosswalk installation at uncontrolled locations are given in the FHWA document, Safety Effect of Marked Versus Unmarked Crosswalks at Uncontrolled Locations: Final Report and Recommended Guidelines. These guidelines are based on a major study of 1,000 marked crosswalks and 1,000 unmarked crossings in 30 U.S. cities. Recommendations are also given for providing other pedestrian crossing enhancements at uncontrolled locations with and without a marked crosswalk.

Crosswalk materials

Crosswalk markings are defined in the MUTCD as solid white transverse, longitudinal, or diagonal lines. Additional materials or colors are sometimes used to supplement the markings, but they are not a substitute for quality roadway markings. It is important to ensure that crosswalk markings are visible to motorists, particularly at night. Crosswalks should not be slippery, create tripping hazards, or be difficult to traverse by those with diminished mobility or visual capabilities. Granite and cobblestones are examples of materials that are aesthetically pleasing, but are inappropriate for crosswalks. They are not smooth, become slippery when wet, and are difficult to traverse by pedestrians who are visually impaired or using wheelchairs. In addition, they are likely to become uneven over time, even when installed smoothly, when subject to the regular weight of motor vehicles.

One of the best materials for marking crosswalks is tape, which is installed on new or repaved streets. It is highly reflective, long-lasting, slip-resistant, and does not require a high level of maintenance if installed properly. One caveat is that it does require a higher level of attention and expertise in the installation process in order to fulfill its full potential. Although initially more costly than paint, both inlay tape and thermoplastic are more cost-effective in the long run. Inlay tape is recommended for new and resurfaced pavement, while thermoplastic may be a better option on rougher pavement surfaces. Both inlay tape and thermoplastic are more visible and less slippery than paint when wet.

Purpose

- Warn motorists to expect pedestrian crossings
- Indicate preferred crossing locations

Considerations

- Crosswalk locations should be convenient for pedestrian access.
- Ideally, crosswalks should be used in conjunction with other measures, such as advance warning signs, warning signs, stop bars, median crossing islands and curb extensions (only where there is on-street parking), to improve the safety of a pedestrian crossing, particularly on multi-lane roads with average daily traffic (ADT) above about 10,000.
- Marked crosswalks are important for pedestrians who are visually impaired.
- Crosswalk markings must be placed to include the ramp so that a wheelchair does not have to leave the marked crosswalk to access the ramp.

Estimated cost

- Approximate installation costs are $100 ($400 for four legs of an intersection) for a marked crosswalk with two transverse line, $300 ($1200 for four legs of an intersection) for an international crosswalk, and $20,000 ($80,000 for four legs of an intersection; also depends on the size of the intersection) for a patterned concrete crosswalk. Maintenance of the markings must also be considered and varies by region of the country and materials used.

Curb Extensions

Curb extensions—also known as bulb-outs or neckdowns—extend the sidewalk or curb line out into the parking lane, which reduces the effective street width. Curb extensions significantly improve pedestrian crossings by reducing the pedestrian crossing distance, visually and physically narrowing the roadway, improving the ability of pedestrians and motorists to see each other, and reducing the time that pedestrians are in the street.

Curb extensions placed at an intersection essentially prevent motorists from parking in or too close to a crosswalk or from blocking a curb ramp or crosswalk. Motor vehicles parked too close to corners present a threat to pedestrian safety, since they block sightlines, obscure visibility of pedestrians and other vehicles, and make turning particularly difficult for emergency vehicles and trucks. Curb extensions also provide an excellent place to locate stop signs which will be more visible since they cannot be easily blocked by parked cars. Motorists are encouraged to travel more slowly at intersections or midblock locations with curb extensions, as the restricted street width sends a visual cue to motorists. Turning speeds at intersections can be reduced with curb extensions (curb radii should be as tight as is practicable). Curb extensions also provide additional space for curb ramps and for level sidewalks where existing space is limited.

Curb extensions are only appropriate where there is an on-street parking lane. Curb extensions must not extend into travel lanes, bicycle lanes, or shoulders (curb extensions should not extend more than 1.8 m (6 ft) from the curb). The turning needs of larger vehicles, such as school buses, need to be considered in curb extension design.

Purpose

- Improve safety for pedestrians and motorists at intersections.
- Increase visibility and reduce speed of turning vehicles.
- Encourage pedestrians to cross at designated locations.
- Prevent motor vehicles from parking at corners.
- Shorten crossing distance and reduce pedestrian exposure.

Considerations

- Curb extensions can provide adequate space on narrow sidewalks for curb ramps and landings.
- Curb extensions should only be used where there is a parking lane, and where transit and bicyclists would be traveling outside the curb edge for the length of the street.
- Midblock extensions provide an opportunity to enhance midblock crossings. Care should be taken to ensure that street furniture and landscaping do not block motorists' views of pedestrians.
- Where intersections are used by significant numbers of trucks or buses, the curb extensions need to be designed to accommodate them. However, it is important to take into consideration that those vehicles should not be going at high speeds, and most can make a tight turn at slow speeds. In some situations, curb bulbs can actually make it easier for trucks to turn by bringing them out, away from the curb, thereby giving them a better angle to enter the receiving lane.
- It is not necessary for a roadway to be designed so that a vehicle can turn from a curb lane to a curb lane. Vehicles can often encroach into adjacent lanes safely where volumes are low and/or speeds are slow. Speeds should be slower in a pedestrian environment.
- Emergency access is often improved through the use of curb extensions if intersections are kept clear of parked cars. Fire engines and other emergency vehicles can climb a curb where they would not be able to move a parked car. At midblock locations, curb extensions can keep fire hydrants clear of parked cars and make them more accessible.
- Curb extensions can create additional space for curb ramps, landscaping, and street furniture that are sensitive to motorist and pedestrian sightlines; this is especially beneficial where sidewalks are otherwise too narrow.
- Ensure that curb extension design facilitates adequate drainage.

Estimated cost

- Curb extensions cost from $5,000 to $25,000 per corner, depending on design and site conditions. Drainage is usually the most significant determinant of cost. If the curb extension area is large and special pavement and street furnishings and planting are

Source: Walking Info.org
www.walkinginfo.org

Crossing Islands

included, costs would also be higher. Costs can go up significantly if something major, such as a utility pole or controller box, is moved.

Crossing islands—also known as center islands, refuge islands, pedestrian islands, or median slow points—are raised islands placed in the center of the street at intersections or midblock to help protect crossing pedestrians from motor vehicles. Center crossing islands allow pedestrians to deal with only one direction of traffic at a time, and they enable them to stop partway across the street and wait for an adequate gap in traffic before crossing the second half of the street. Where midblock or intersection crosswalks are installed at uncontrolled locations (i.e., where no traffic signals or stop signs exist), crossing islands should be considered as a supplement to the crosswalk. They are also appropriate at signalized crossings though they should never be used to create a two-phased pedestrian crossing at a signalized intersection (don't leave pedestrian stuck on a crossing island between moving lanes of traffic). Signalized, two-phased pedestrian crossings can be used at midblock locations where the crossing is designed with a "Z" pattern (pedestrian crosses to the middle with one signal, traverses down the fenced median at least 30 feet and then crosses to the other side with a second signal). If there is enough width, center crossing islands and curb extensions can be used together to create a highly improved pedestrian crossing. Detectable warnings are needed at cut-throughs to identify the pedestrian refuge area.

This kind of facility has been demonstrated to significantly decrease the percentage of pedestrian crashes. The factors contributing to pedestrian safety include reduced conflicts, reduced vehicle speeds approaching the island (the approach can be designed to force a greater slowing of cars, depending on how dramatic the curvature is), greater attention called to the existence of a pedestrian crossing, opportunities for additional signs in the middle of the road, and reduced exposure time for pedestrians.

Curb extensions may be built in conjunction with center crossing islands where there is on-street parking. Care should be taken to maintain bicycle access. Bicycle lanes (or shoulders, or whatever space is being used for bicycle travel) must not be eliminated or squeezed in order to create the curb extensions or islands.

Purpose

- Enhance pedestrian crossings, particularly at unsignalized crossing points
- Reduce vehicle speeds approaching pedestrian crossings
- Highlight pedestrian crossings

Considerations

- Do not squeeze bicycle access.
- Illuminate or highlight islands with street lights, signs, and/or reflectors to ensure that motorists see them.
- Design islands to accommodate pedestrians in wheelchairs. A cut-through design such as depicted in the photo must include detectable warnings.
- Crossing islands at intersections or near driveways may affect left-turn access.

Estimated cost

- Costs range from $4,000 to $30,000. The cost for an asphalt island or one without landscaping is less than the cost of installing a raised concrete pedestrian island with landscaping.

Signals & Signs

Traffic control devices are often used by traffic engineers to improve safety and access for pedestrians. In addition to marked crosswalks, several other devices are available. For information on accessible pedestrian signals, visit the Accessible Pedestrian Signal web site. This section includes:

- Pedestrian Signals
- Pedestrian Signal Timing
- Traffic Signal Enhancements
- Right-Turn-On-Red Restrictions
- Signing

Traffic signals create gaps in the traffic flow, allowing pedestrians to cross the street. They should allow adequate crossing time for pedestrians and an adequate clearance interval based upon a maximum walking speed of 3.5 ft/s. Signals are particularly important at high-use, midblock crossings on higher speed roads, multi-lane roads, or at highly congested intersections. National warrants from the Manual on Uniform Traffic Control Devices (MUTCD) are based on the number of pedestrians and vehicles crossing the intersection, among other factors. However, judgment must also be used on a case-by-case basis. For example, a requirement for installing a traffic signal is that there are a certain number of pedestrians present. If a new facility is being built—a park or recreational path, for example—there will be a new demand, and the signal could be installed in conjunction with the new facility based on projected crossing demand. There may also be latent demand if a destination is not currently accessible, but could become so with new facilities or redesign.

In downtown areas, signals are often closely spaced, sometimes every block. Timed sequencing of signals should ensure that the amount of time allotted per cycle for pedestrian crossings is sufficient. Signals are usually spaced farther apart in suburban or outlying areas, but similar considerations for pedestrian phasing should be made. When high or regular pedestrian traffic exists during a majority of the day, fixed-time signals should be used to consistently allow crossing opportunities. Pedestrian actuation should only be used when pedestrian crossings are intermittent and should be made accessible to all pedestrians, including those with disabilities.

Purpose

- Provide intervals in a traffic system where pedestrians can cross streets safely

Considerations

- Where pedestrian traffic is regular and frequent, pedestrian phases should come up automatically. Pedestrian actuation should only be used when pedestrian crossings are intermittent.
- Signal cycles should be kept short (ideally 90 seconds maximum) to reduce pedestrian delay. Pedestrians are very sensitive to delays.
- Marked crosswalks at signals should always be installed at all four legs. They encourage pedestrians to cross at the signal and discourage motorists from encroaching into the crossing area.

Estimated cost

- $40,000 to $200,000/signal

Pedestrian Signals

Pedestrian signal indications should be used at all traffic signals, unless the signal is located on a highway where walking is prohibited. The international pedestrian symbol signal is preferable and is recommended in the MUTCD. Existing WALK and DON'T WALK messages may remain for the rest of their useful life but should not be used for new installations. Pedestrian signals should be clearly visible to the pedestrian at all times when in the crosswalk or waiting on the far side of the street. Larger pedestrian signals can be beneficial in some circumstances (e.g., where the streets are wide). Signals may be supplemented with audible or other messages to make crossing information accessible for all pedestrians, including those with vision impairments. The decision to install audible pedestrian signals should consider the noise impact on the surrounding area. Visit PBIC's web site for much more extensive information on the use of accessible pedestrian signals (APS) and the types of APS technologies available.

Signals & SIgns Cont.

Purpose
- Indicate appropriate time for pedestrians to cross
- Provide pedestrian clearance interval

Considerations
- Ensure that signals are visible to pedestrians.
- When possible, provide a walk interval for every cycle.
- Pedestrian pushbuttons must be well positioned and within easy reach for all approaching pedestrians. Section 4E.09 within the MUTCD provides detailed guidance for the placement of pushbuttons to ensure accessibility.

Estimated cost
- $20,000 to $40,000 for all four legs

Pedestrian Signal Timing

There are several types of signal timing for pedestrian signals, including concurrent, exclusive, “leading pedestrian interval” (LPI), and all-red interval. In general, shorter cycle lengths and longer walk intervals provide better service to pedestrians and encourage better signal compliance. For optimal pedestrian service, fixed-time signal operation usually works best. Pedestrian pushbuttons may be installed at locations where pedestrians are expected intermittently. Quick response to the pushbutton or feedback to the pedestrian (e.g.- indicator light comes on) should be programmed into the system. When used, pushbuttons should be well-signed and within reach and operable from a flat surface for pedestrians in wheelchairs and with visual disabilities. They should be conveniently placed in the area where pedestrians wait to cross. Section 4E.09 within the MUTCD provides detailed guidance for the placement of pushbuttons to ensure accessibility.

In addition to concurrent pedestrian signal timing (where motorists may turn left or right across pedestrians’ paths after yielding to pedestrians), exclusive pedestrian intervals stop traffic in all directions. Exclusive pedestrian phasing is most appropriate in locations with high pedestrian volumes (especially if higher than motor vehicle volumes), high turning movement conflicts, or high speed locations. With concurrent signals, pedestrians usually have more crossing opportunities and have to wait less. Unless a system is willing to take more time from vehicular phases, pedestrians will often have to wait a long time for an exclusive signal. This is not very pedestrian-friendly, and many pedestrians will simply choose to ignore the signal and cross if and when there is a gap in traffic, negating the potential safety benefits of the exclusive signal. Exclusive pedestrian phases do introduce a problem for pedestrians with visual impairments, as the audible cues associated with surging parallel traffic streams are no longer present, which makes it difficult to know when to begin crossing.

A simple, useful change is the LPI. An LPI gives pedestrians an advance walk signal before the motorists get a green light, giving the pedestrian several seconds to start in the crosswalk where there is a concurrent signal. This makes pedestrians more visible to motorists and motorists more likely to yield to them. This advance crossing phase approach has been used successfully in several places, such as New York City, for two decades and studies have demonstrated reduced conflicts for pedestrians. The advance pedestrian phase is particularly effective where there is a two-lane turning movement. To be useful to pedestrians with vision impairments, an LPI needs to be accompanied by an audible signal to indicate the WALK interval.

There are some situations where an exclusive pedestrian phase may be preferable to an LPI, such as where there are high-volume turning movements that conflict with the pedestrians crossing.

Purpose
- An exclusive phase provides a pedestrian crossing phase with no conflicting traffic.
- A short all-red clearance interval provides a better separation between cars and pedestrians.

Considerations
- An exclusive phase usually creates a longer cycle length and a longer wait between crossings.
- An exclusive phase may eliminate the ability to synchronize timing at adjacent traffic signals.
- Exclusive phasing is most applicable to areas with high pedestrian volumes (e.g., more than 1,200 pedestrian crossings per day), where there are high conflicts with turning vehicles, or where there are high speed turns that would put a crossing pedestrian in greater peril.

- Exclusive timing eliminates conflicts with turning vehicles if pedestrians and motorists obey their signals and there is a prohibition on right turn on red.
- The benefits of this treatment may not extend to vision-impaired pedestrians.
- Wider intersections require longer cycle lengths.
- Longer walk or pedestrian clearance intervals may also lead to longer cycle lengths.
- Use fixed-time operation unless pedestrian arrivals are intermittent.

Estimated cost

- Adjusting signal timing is very low cost and requires a few hours of staff time to accomplish. New signal equipment ranges from $40,000 to $200,000.

Traffic Signal Enhancements

A variety of traffic signal enhancements that can benefit pedestrians and bicyclists are available. These include automatic pedestrian detectors, larger traffic signals that better ensure visibility, signal placement to prohibit motorists waiting at a red light from seeing other signals and anticipating green lights, and countdown signals to provide pedestrians with information about the amount of time remaining in a crossing interval.

Countdown signals may be designed to begin counting down at the beginning of the walk phase (preferred) or at the beginning of the clearance (flashing DON'T WALK) interval. Countdown signals can be on fixed-time or pushbutton operation.

Since pedestrian pushbutton devices are not activated by about one-half of pedestrians (even fewer activate them where there are sufficient motor vehicle gaps), new "intelligent" microwave or infrared pedestrian detectors are now being installed and tested in some U.S. cities. These automatically activate the red traffic and WALK signals when pedestrians are detected. Detectors can also be used to extend the crossing time for slower moving pedestrians in the crosswalk. Automatic pedestrian detectors have been found to improve pedestrian signal compliance and also reduce pedestrian conflicts with motor vehicles. However, they are still considered experimental and their reliability may vary under different environmental conditions.

Purpose

- Improve pedestrian accommodation at signalized crossings

Considerations

- Pedestrian signals need to indicate the crossing interval by visual, audible, and/or tactile means if pedestrians with vision impairments are to take advantage of them.

Estimated cost

- About $10,000 to add new pedestrian signals and mark crosswalks at all four legs.

Right-Turn-On-Red Restrictions

A permissible Right-Turn-on-Red (RTOR) was introduced in the 1970s as a fuel-saving measure and has sometimes had detrimental effects on pedestrians. While the law requires motorists to come to a full stop and yield to cross-street traffic and pedestrians prior to turning right on red, many motorists do not fully comply with the regulations, especially at intersections with wide turning radii. Motorists are so intent on looking for traffic approaching on their left that they may not be alert to pedestrians approaching on their right. In addition, motorists usually pull up into the crosswalk to wait for a gap in traffic, blocking pedestrian crossing movements. In some instances, motorists simply do not come to a full stop.

One concern that comes up when RTOR is prohibited is that this may lead to higher right-turn-on-green conflicts when there are concurrent signals. The use of the leading pedestrian interval (LPI) can usually best address this issue. Where pedestrian volumes are very high, exclusive pedestrian signals should be considered.

Prohibiting RTOR should be considered where and/or when there are high pedestrian volumes, or where there is a proven problem with motorists conflicting with pedestrians. This can be done with a simple sign posting, although there are some options that are more effective than a standard sign. For example, one option is a larger 762-mm by 914-mm (30-in by 36-in) NO TURN ON RED sign, which is more conspicuous. For areas where a right-turn-on-red restriction is needed during certain times, time-of-day restrictions may be appropriate. A variable-message NO TURN ON RED sign is also an option.

Signals & Signs Cont.

Purpose
- Increase pedestrian safety and decrease crashes with right-turning vehicles

Considerations
- Prohibiting RTOR is a simple, low-cost measure. Together with a leading pedestrian interval, the signal changes can benefit pedestrians with minimal impact on traffic.
- Prohibiting RTOR may cause congestion at locations with high right turn movements
- Part-time RTOR prohibitions during the busiest times of the day may be sufficient to address the problem.
- Signs should be clearly visible to right-turning motorists stopped in the curb lane at the crosswalk.

Estimated cost
- $30 to $150 per NO TURN ON RED sign plus installation at $200 per sign. Electronic signs have higher costs.

Signing

Signs can provide important information that can improve road safety. By letting people know what to expect, there is a greater chance that they will react and behave appropriately. For example, giving motorists advance warning of an upcoming pedestrian crossing or that they are entering a traffic-calmed area will alert them to modify their speed. Sign use and movement should be done judiciously, as overuse breeds noncompliance and disrespect. Too many signs may also create visual clutter and signs can get lost. All signs should be periodically checked to make sure that they are in good condition, free from graffiti, reflective at night, and continue to serve a purpose.

Regulatory signs, such as STOP, YIELD, or turn restrictions require certain driver actions and can be enforced. Warning signs can provide helpful information, especially to motorists and pedestrians unfamiliar with an area. Some examples of signs that affect pedestrians include pedestrian warning signs, motorist warning signs, NO TURN ON RED signs, and guide signs.

Advance pedestrian warning signs should be used except in very urban situations where short blocks don't provide appropriate distances for locating the signs. They should always be used where pedestrian crossings may not be expected by motorists, especially if there are many motorists who are unfamiliar with the area.

Purpose
- Provide regulation, warning, or information to road users as to what to expect and how to behave

Considerations
- Overuse of signs breeds noncompliance and disrespect. Too many signs can lead to visual clutter with the result that a driver is not likely to read or pay attention to any of the signs.
- Signs should be checked to assure adequate nighttime reflectivity.

Estimated cost
- $50 to $150 per sign plus $150 /sign in installation costs.

School Zone Improvements

Traffic safety around schools is a paramount concern to parents, school officials, and communities. Increasing the number of children who walk or bicycle to school will help improve their health and quality of life. Improvements should start at the planning level; when new elementary schools are sited, they should be placed inside neighborhoods to minimize the need for young children to cross busy arterial streets. These schools should not front busy arterial streets. School officials need to review attendance boundaries and walking attendance boundaries so that young children do not have to face unnecessary challenges on their way to and from school.

Schools should develop "Safe Routes to School" walking and bicycle plans to serve all residences within the walking attendance boundary and work with local agencies to identify and correct traffic problem areas while developing these plans. These "Safe Route to School" walking and bicycling plans help to identify where traffic control (signs, traffic signals, crosswalks, adult guards, etc.) should be placed around the school and along school routes. Marked crosswalks can help guide children to the best routes to school with these plans. For more information on Safe Routes to School plans and maps, visit the National Center for Safe Routes to School web site.

A variety of roadway improvements can be used to enhance the safety and mobility of children walking to or from school. Sidewalks or separated walkways and paths are essential for a safe trip from home to school on foot or by bike. Sidewalks need to be kept clear of obstructions and should be promptly repaired when damaged. Wider sidewalks should be used closer to schools where larger groups of students are walking.

The greatest hazards to all pedestrians occur when crossing streets; young children are even more vulnerable, as they have trouble judging traffic and finding an acceptable gap to cross. The use of trained adult crossing guards has been found to be one of the most effective measures for assisting children in crossing streets safely. Some agencies require two adult guards for crossings wide multi-lane streets. Adult crossing guards require periodic training and monitoring and should be equipped with bright and reflective Class 2 safety vests (as provided in the MUTCD) and a STOP paddle. Student safety patrols may be used to assist adult guards or provide assistance on campus to assist with younger students (drop-off zone valets, student management). Some of the most effective safety treatments are low-cost and easy to implement measures such as larger standing areas and stand-back lines to keep students further back from busy streets while waiting to cross.

Some challenging streets can be modified to simplify crossings through the use of road diets, crossing islands, or other treatments to minimize the crossing distance. A road diet is a low-cost way to reduce the number of through lanes on a street. For example, a four-lane street (two-lanes in each direction) can be converted by paint to have one lane in each direction, a center two-way-left-turn lane, and on-street bike lanes to provide a much more pedestrian-friendly street. Other improvements for multilane streets include advance stop lines placed 40 to 50 feet (13 to 17 m) in advance of the crosswalk with STOP/YIELD HERE FOR PEDESTRIANS signs. Police enforcement in school zones may be needed in situations where drivers are speeding or not yielding to children in crosswalks. Radar speed boards and other innovative enforcement programs, such as photo speed or red-light cameras, may also be employed at some crossings if allowed by state law.

Other helpful measures include parking prohibitions near intersections and crosswalks near schools; increased child supervision at crossings; and the use of signs and pavement markings, such as the school advance warning sign (which can be fluorescent yellow/green) and SPEED LIMIT XX MPH WHEN FLASHING signs with flashers on a timer. School administrators and parent-teacher organizations need to educate students and parents about school safety and access to and from school. Education, enforcement, and well-designed roads must all be in place to encourage motorists to drive appropriately. Appropriate traffic control devices at crossings and traffic calming devices inside neighborhoods (speed humps, speed tables, raised intersections, traffic circles, and chokers) can be very helpful in controlling vehicle speeds. Care should be taken so that traffic calming devices do not disrupt emergency vehicles, bike lanes, or the flow of stormwater runoff.

School Zone Improvements Cont.

One of the biggest safety problems around schools is often caused by parents or caretakers dropping off and picking up children. There are two immediate solutions: 1) there needs to be a clearly marked area where parents are permitted to drop off and pick up their children, and 2) drop-off/pick-up regulations must be provided to parents prior to the first day of school. Drop-off areas must be located away from where children on foot cross streets or access the school and should be designed to create the appropriate amount of on-site vehicle storage or queuing along the on-street drop-off zone. Teachers, parent volunteers, or older students can be used as valets to speed up student loading/unloading and better organize the process. Parent drop-off zones must be separated from bus drop-off zones. If parents can be trained to do it right at the start of the school year, they are likely to continue with this good behavior throughout the year.

For a longer term solution, it is preferable to create an environment where children can walk or bicycle safely to school, provided they live within a suitable distance. One strategy that has been successful in some communities is the concept of a "walking school bus," where an adult accompanies children to school, starting at one location and picking children up along the way. Soon, a fairly sizeable group of children are walking together under the supervision of a responsible adult, who is mindful of street crossings. The presence of such groups affects drivers' behavior, as they tend to be more watchful of children walking. Parents can take turns accompanying the walking school bus in ways that fit their schedules.

Another solution is to preserve or identify where short-cuts can be created—for example, where there are cul-de-sacs—to shorten the walking distance and provide a safer walking environment. Street lighting and pedestrian level lighting can increase both pedestrian safety and security for students. Lighting along the school campus may also help minimize vandalism at the school.
Bicycle education and encouragement, the appropriate bicycling facilities, and well-placed bike racks on campus can encourage more children to ride their bikes to schools.

Purpose

- Provide enhanced safety around schools
- Slow vehicle speeds at schools and school crossings
- Encourage more children to walk or bike to school

Considerations

- Safety must be a combined effort between local traffic officials, police, school officials, parents, students, and the community.
- School attendance and walking attendance boundaries should be reviewed and may need to be adjusted to provide safest walking and bicycling conditions for children.
- "Safe Route to School" walking maps should be developed to serve all homes within the walking attendance boundaries of all elementary schools and middle schools.
- There are a wide variety of engineering treatments and traffic control techniques that can be used to improve safety and walkability at schools and school crossings. Each school will need to utilize its own set of engineering treatments.
- Local officials should review school area sidewalks, crosswalks, and other traffic control devices annually to make sure they are in good condition before the start of the next school year.
- School officials need to provide feedback to local officials and police to help identify problems areas or maintenance needs.

Estimated cost

- Costs depend on the school zone treatment selected. For example, if signs were chosen, costs might include $50 to $150 per sign plus installation costs. A marked crosswalk may cost from $300 to $1000 depending on the crosswalk marking design (parallel lines versus ladder, etc.), materials used, and the width of the street. A traffic signal costs from $150,000 to $200,000 (assuming substantial street improvements are not needed for the new signal).

Designing for Special Populations

Special pedestrian populations include young children, senior citizens, and disabled pedestrians of all ages. Each special pedestrian population has their own unique set of characteristics that limit their ability to safely travel across and along roadways. For example, young children do not have the maturity and understanding — or various other cognitive abilities — to understand how to share the roadway with automobiles and how to safely cross streets. Older pedestrians are not as mobile as younger adults and/or may have limited hearing or vision. Physical disabilities may include no or limited vision, or the need to use wheelchair, walkers, or other mobility assistance devices.

An estimated 85 percent of Americans living to full life expectancy will experience some sort of permanent disability sometime in their lifetime. The Americans With Disabilities Act (ADA) has paved the way for some significant improvements for the 43 million Americans who are disabled. Signed into law on July 26, 1990, the ADA was a landmark in civil rights legislation, mandating that disabled persons have full access to all public facilities in the United States.

"One-fifth of the people in this country currently have a disability. When we build something improperly, we're leaving that one-fifth out," notes Barbara McMillen, Transportation Specialist with the FHWA. "Accessibility, project development, and construction must all come together. It's a safety issue. We need to make pedestrian facilities more usable for everyone."

Design elements that deserve special consideration for pedestrians with disabilities include:

- Wheelchair ramp placement and design (ramp slope, side-slope, level landing, crosswalk placement, detectable warning, smooth transitions, etc)
- Clear sidewalk width
- Sidewalk cross-slope
- Street furniture design and placement
- Tactile warning strips at street crossings
- Audible pedestrian signals (for information on accessible pedestrian signals, visit the Accessible Pedestrian Signal web site)
- Pedestrian crossing time
- Construction zones and temporary work zones

In response to the ADA and the Transportation Equity Act for the 21st Century (TEA-21), the U.S. Department of Transportation has drafted a policy statement calling for measures that will serve to develop a transportation infrastructure that provides access for all, a real choice of modes, and safety in equal measure for each mode of travel. The US Department of Transportation and the US Access Board have developed a range of technical assistance materials to assist practitioners in meeting the requirements of the ADA and other accessibility laws.

Many older and disabled pedestrians remain active and busy, and often travel by public transit to work, shop, or for recreational purposes. All of these trips typically involve walking for at least some part of the trip. At times, traveling on foot to the other side of a busy street can become dangerous. Problems can result from wide streets, traffic signals with insufficient crossing time, lack of convenient or safe crossing opportunities, high speed or high volume traffic, and drivers focusing their attention on other vehicles instead of pedestrians.

More Americans are living longer—to an average age of 77 years—thanks to advances in health care, nutrition, and a better quality of life. Currently, older Americans represent 13 percent of the U.S. population. By 2030, there will be about 70 million older persons living in the United States. The AARP notes that the older population will balloon between 2010 and 2030, when the baby boom generation reaches the age of 65. The number of Americans aged 80 or over will rise sharply, from 61 million in 1995 to 320 million in 2050 and 1,055 million in 2150. These demographic changes will greatly change the course of pedestrian design, as design elements such as street crossing times, will react to market forces.

The situation can be grim for older persons who become unable to drive. Streets have become less friendly to seniors and other pedestrians. As frailty increases with age, citizens over the age of 65 continue to have the highest pedestrian fatality rates. If public transit is not reliable and streets are not easy or safe to cross and walk along, many seniors who do not drive must depend on families, neighbors, friends, or taxi services for rides—or they must remain homebound.

Designing for Special Populations Cont.

Effects of aging

In general, the aging process causes a deterioration of physical, cognitive, and sensory abilities. According to researchers at the Federal Highway Administration (FHWA), National Highway Traffic Safety Administration (NHTSA), and the University of North Carolina Highway Safety Research Center (UNC-HSRC), problems experienced by older pedestrians can include in varying degree:

- Decreased visual acuity, poor central vision, reduced ability to scan the environment
- A reduced range of joint mobility
- Reduced ability to detect and localize different sounds
- Reduced endurance
- Reduced tolerance for extreme temperature and environment
- Decreased agility, balance, and stability
- Inability to quickly avoid dangerous situations
- Slower reflexes
- Excessive trust that other motorists will obey traffic laws
- Impaired judgment, confidence, and decision making abilities

What's more, seniors are more likely to experience restrictive disabilities than other age groups. In 1994 and 1995, 52.5 percent of seniors reported having one or more disabling conditions. Nearly three quarters of the over-80 population report having one or more disabilities.

What can be done?

It's the city's job to provide reliable public transportation and well-lit streets with good walkways and safe, sheltered benches to rest. Planning measures should be taken to prevent highways from dividing commercial spaces from residential spaces. While these measures take time, designers and engineers can react more immediately to the pedestrian design needs of senior citizens by:
Using technology to extend crossing times at traffic signals. In Los Angeles, CA and Portland, OR, engineers use microwave technology to detect the presence of persons who are moving too slowly to finish crossing the street. The detector will automatically extend the crossing time for several more seconds, allowing the pedestrian to finish crossing safely.

- Tightening curb radii, which prevents vehicles from rounding corners at high speeds.
- Providing adequate medians so that pedestrians can feel comfortable when crossing a wide street.
- Changing the pedestrian signal timing calculations for the walking clearance interval from a speed of 4.0 ft/s (1.22 m/s). This speed represents the average time for a typical person to cross the street. Recognizing the slower gait and shorter stride of older people, as well as the slower travel speeds for disabled pedestrians, the FHWA and the USDOT recommended in the Older Driver Highway Design Handbook" that pedestrian signal timing be based on a walking speed of 2.8 ft/s (0.85 m/s). They also recommend the installation of signs to explain precisely what the various crosswalk signal displays mean.
- Even small design and engineering improvements can make a big difference.

Purpose

- Assure that all sidewalks and street crossings accommodate older and disabled pedestrians and are in compliance with ADA accessibility requirements

Considerations

- Accommodating the needs of older and disabled pedestrians will assure that the sidewalks and crossings are accessible to all other users such as people with carts and people pushing strollers.
- Traffic signals that have concentrations of older or disabled pedestrian populations should be evaluated for extra crossing and clearance times and accessible pedestrian signals.
- All communities should have implementation plans to retrofit their infrastructure to comply with ADA requirements.
- Most ADA sidewalk or crossing features cost very little more to build into new projects, but can be expensive to retrofit, such as wheelchair ramps.

Estimated cost

- Retrofitting a wheelchair ramp may cost about $1,000 to $2000 for each corner.
- Audible pedestrian signals cost $400 to $800 per corner per crossing.

Appendix I: Funding

Funding for bicycle and pedestrian facilities in Wisconsin

This document provides a summary of bicycle and pedestrian programs and projects funded in Wisconsin from 1993 to 2007 with additional information on ongoing WisDOT efforts incorporated into state highway projects and programs. The information provided was updated in November of 2007

Bicycle and pedestrian travel is increasingly recognized not only for its recreational and health benefits, but also as a practical transportation alternative. Wisconsin is widely recognized for its quality biking facilities. Residents and visitors alike appreciate the thousands of miles of low volume country roads and the state's excellent trail system. Sparta, WI has tabbed itself as the "Bicycling Capital of America," while a national bicycling publication has often named Madison as one of the top ten bicycling cities in the country for its top-notch biking opportunities. The state's role as an active partner in support of bicycle and pedestrian activities includes: providing technical support and guidance to communities; safety-related educational resources; financial assistance to help local governments invest in bike and pedestrian facilities; and ensuring that the needs of bicyclists and pedestrians are considered in state and federally-funded highway projects.

Since 1993, the Wisconsin Department of Transportation (WisDOT) has committed $139.7 million in federal funds to 493 bike and pedestrian projects throughout the state. This does not include bike and pedestrian improvements funded as incidental parts of larger projects. Most projects are funded at 80% federal funding with the balance of funding from local and state government partnerships. The primary sources of funding for bicycle and pedestrian projects are from programs started in the early 1990s under the Intermodal Surface Transportation Efficiency Act (ISTEA) that have continued in subsequent federal transportation acts. The programs are described below. A table listing all of the projects funded since 1993 is available to download.

Congestion Mitigation and Air Quality (CMAQ) Program

CMAQ was created in 1993 to encourage transportation alternatives that improve air quality. It includes efforts to enhance public transit, construct bicycle and pedestrian facilities, improve traffic flow and promote vehicle and fuel technologies that decrease emissions. Since 1993, $45.4 million in federal CMAQ awards have been invested in 70 bicycle-pedestrian facilities throughout the southeastern Wisconsin 11 county ozone non-attainment and maintenance area.

Local Transportation Enhancement (TE), Bicycle and Pedestrian Facilities Program (BPFP) and STP-Discretionary (STP-D) programs

In Wisconsin, these programs have been collectively funded under the Statewide Multi-modal Improvement Program (SMIP). The TE program promotes projects that "enhance" the surface transportation system. There are 12 federally eligible categories, with bicycle and pedestrian categories typically making up almost two-thirds of Wisconsin projects awarded. The STP-D program funded projects such as bicycle and pedestrian facilities that foster alternatives to single-occupancy vehicle travel. Up until

1995, there was also a small Bicycle and Pedestrian Facilities Program (BPFP) that was primarily used to fund bicycle planning related activities. Funding for the STP-D program was eliminated in the 2003-05 and 2005-07 state biennial budgets. Funding for the STP-D program was revived for the second year of the 2007-09 state biennial budget, then converted to a revived and modified version of BPFP. Since 1993, $72.3 million in federal funds have been committed to 320 projects through SMIP related programs.

Safe Routes to School (SRTS) Program

The most recent federal transportation act, SAFETEA-LU, added a new bicycle and pedestrian program called Safe Routes to School (SRTS). The program addresses a long-term trend away from children bicycling and walking to school to being transported by car or bus. The trend has not only been part of the increasing levels of traffic congestion and air pollution, but also linked to child health and obesity problems. SRTS is an effort to reverse these trends by funding bicycle and pedestrian infrastructure, planning and promotional projects. Projects must be within two miles of a kindergarten to 8th Grade school. Unlike most federal programs above, SRTS are 100% federally funded. The first SRTS funds were used for two projects submitted with the 2006 TE applications. The first competitive statewide cycle began in 2007. The result was 49 projects funded for $4.9 million.

Other ongoing and previous efforts benefiting bicyclists and pedestrians

State Enhancements - From 1999 to 2002, the state enhancement program was an effort to further utilize federal TE apportionments within state budget spending authority. State highway projects scheduled through 2006 were evaluated for TE eligible elements that could be added to state highway projects and corridors above and beyond what was normally incorporated into the projects. This effort resulted in the approval of $17.1 million of federal funds for 54 bike and pedestrian related projects. Since then, WisDOT has developed a "Community Sensitive Design" (CSD) policy that promotes many TE type activities as standard practice on state highway projects that are funded as part of the project's cost. As noted later on, many bicycle and pedestrian related facilities are now a routine part of state highway projects.

Sheboygan Non-motorized Transportation Pilot Program (NTPP) - Sheboygan County was among one of four communities around the country selected for a unique pilot program. The goal of the program is to test whether a major commitment of funds to bicycle and pedestrian facilities could lead to a measurable shift in travel to biking and walking within a community. Like SRTS projects, funding is 100% federal. Sheboygan County is now undertaking a countywide competitive process with several application cycles per year. Over $20 million in funds will be approved for infrastructure, education and promotional projects by the end of SAFETEA-LU in 2009.

Highway Safety Improvement Program (formerly known as the Hazard Elimination Program) - Bicycle and pedestrian projects are eligible for this program. The program focuses on projects intended for locations that have a documented history of previous

crashes. Contact WisDOT Region coordinators for more details. Chuck Thiede at (608) 266-3341 is the statewide coordinator.

Surface Transportation Program–Urban – Urbanized areas of 50,000 or more population receive an allocation of funds that are distributed every two years. These funds can be used on a variety of improvement projects including bicycle and pedestrian projects. Most of the Metropolitan Planning Organizations that administer this program have been using these funds to integrate bicycle and pedestrian projects as part of larger street reconstruction projects. Contact MPOs for more information.

Incidental Improvements – Bicycle and pedestrian projects are broadly eligible for funding from most of the major federal-aid programs. One of the most cost effective ways of accommodating bicycle and pedestrian accommodations is to incorporate them as part of larger reconstruction, new construction and some repaving projects. Generally, the same source of funding can be used for the bicycle and pedestrian accommodations as is used for the larger highway improvement, if the bike/ped accommodation is "incidental" in scope and costs to the overall project. For example, WisDOT invests millions of dollars annually on bike and pedestrian-related improvements as part of highway and bridge construction projects as noted below.

Paved Shoulders - Approximately 75% of our two-lane state highway system now has three-foot or five-foot paved shoulders to the benefit of bicycles and motorists. Approximately 250 miles of new paved road shoulders are added each year – partially to the benefit of bicyclists.

Bicycle Accommodations on Bridges - Nearly all newly constructed rural bridges have wide paved shoulders and most high cost urban bridges provide bike lanes or a separated path for bicyclists and pedestrians.

Sidewalk Construction - Each year, WisDOT constructs or replaces about 15 miles of sidewalk and another mile of sidewalk as part of bridge projects at an annual investment of about $1.5 million. Additionally, an undetermined amount of funds are spent on curb ramps, median islands, and pedestrian signals that are often added to projects to help reduce the impact of street projects and are aimed at improving the crossing ease and safety of pedestrians.

Safety, Education and Enforcement - WisDOT invests about $350,000 of federal and state funds each year on bike and pedestrian education, safety and enforcement.