ACTIVE TRANSPORTATION PLAN for

IMPROVING OPTIONS FOR BIKING, WALKING, AND TRANSIT ACCESS



ACTIVE TRANSPORTATION ALLIANCE

ACTIVE TRANSPORTATION PLAN for WHEELING

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ACTIVE TRANSPORTATION PLAN STEERING COMMITTEE

This plan represents the combined vision and goals of the steering committee that guided its development as well as residents and other key stakeholders. Thank you to these residents and the members of the steering committee for donating their time to this project.

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INTRODUCTION

Active Transportation Plan for Wheeling

Improving options for biking walking and transit access.

11 Vision for Active Transportation

The Village of Wheeling will have a complete, safe and attractive network of transportation options for residents and visitors. The network will allow people to travel throughout Wheeling and connect to adjacent communities on foot or bike. The users of this network will benefit from the health, safety and economic opportunities provided by being able to access parks, schools, transit, trails, businesses and other destinations on foot or bike. Wheeling's vision for active transportation is a statement about the future of walking, biking and access to transit in Wheeling. It is intended to guide the Village as it continues to develop its transportation network, make policy changes, and provide programming to residents and visitors.

This statement, crafted with input from residents and community organizations, along with input from hundreds of people in the Wheeling community, shapes the recommendations included in this plan. The vision is supported by goals, objectives, and strategies. This structure provides actionable steps to implement as the Village works toward enacting its vision for active transportation.

VISION: A statement about the future of active transportation in Wheeling

GOALS: Areas of focus for achieving Wheeling's vision for active transportation

OBJECTIVES: Specific ways to achieve Wheeling's vision for active transportation

STRATEGIES: Projects the Village can complete to achieve its goals

1.2 Active Transportation Plan Goals

The following goals are established to support the Village's vision for active transportation:

NETWORK.

Increase transportation options, accessibility and connectivity for people walking, bicycling and riding transit.

POLICIES.

Leverage municipal policies to develop a comprehensive active transportation network that is safe and inviting to all.

PROGRAMMING.

Provide education, encouragement and enforcement programs for active transportation users. Enable people of all ages, abilities, and spoken languages to feel safe and confident while walking and biking.

IMPLEMENTATION.

Implement recommendations contained in this plan.

13 Planning Process

This plan is the result of an eight–month process designed to result in community supported recommendations and priorities. Active Transportation Alliance, TranSystems and the Village created the following process to ensure that the Wheeling Active Transportation Plan reflects the goals and visions of the community.

1.3.1 ESTABLISHED A STEERING COMMITTEE

The steering committee represented a large number of stakeholders in the community and the interests of residents, businesses, agencies, and organizations that serve the Wheeling community. A complete list of steering committee members is available in the Acknowledgements section of this plan.

Steering committee members contributed to the development of the plan in the following ways:

Participated in a "Get to Know Wheeling" bike ride with the consulting team, where the participants were able to identify places that were challenging for cyclists and pedestrians

Engaged the communities they represented in the planning process by distributing information about meetings and events for this plan, posting electronic flyers on their organization's websites, and distributing flyers and links to an online survey

Reviewed the research and recommendations made by the consulting team to ensure that the plan was reflective of their group's priorities for active transportation



STEERING COMMITTEE MEMBERS gather before leading a "Get to Know Wheeling" bike ride.

1.3.2 PROVIDED INFORMATION TO RESIDENTS ABOUT KEY WAYS TO GET INVOLVED

The project team applied a variety of strategies to get the word out about Wheeling's active transportation planning process. To reach the widest audience, the following strategies were used:

Gained media coverage in the local newspapers, on social media, and on various websites

Provided a representative to engage residents with mapping exercise and surveys at community events sponsored by members of the steering committee

Posted meeting notices, surveys and fliers throughout the community

Identified and targeted groups that are not on the steering committee but are key parts of the Wheeling community for public participation

1.3.3 ENGAGE THE COMMUNITY IN A VARIETY OF VISIONING ACTIVITIES

The project team employed a variety of strategies to

engage Wheeling residents in the planning process:

Active transportation plan community meeting: An evening meeting was held to discuss and envision future active transportation conditions in the Village.

Surveying: Online and paper copy surveys were distributed throughout the community.

Interactive maps and surveys: Posters with questions about active transportation were posted at the recreation center and library.

Targeted focus groups: The project team met with key groups of residents in Wheeling to provide input.

Individual stakeholder interviews: The project team met with business owners and managers to discuss how active transportation affects businesses, their customers and employees in Wheeling.



WHEELING RESIDENTS attend a community meeting about active transportation.

THE PROJECT TEAM attends the Wheeling Bike Rodeo.



RESIDENTS AND ELECTED OFFICIALS learn about the Wheeling Active Transportation Plan.



1.3.4 SOLICITED INPUT FROM NEIGHBORING MUNICIPALITIES AND OTHER GOVERNMENT AGENCIES

The project team met with the Cook County Forest Preserve District, the Village of Arlington Heights, the Village of Buffalo Grove and the Northwest Municipal Conference to ensure that the Wheeling Active Transportation Plan is consistent with the plans of the neighboring municipalities and other relevant government agencies.

1.3.5 DEVELOPED AN IN-DEPTH UNDERSTANDING OF WHEELING'S EXISTING TRANSPORTATION NETWORK

The project team conducted a technical analysis of existing conditions using available data provided by the Village in conjunction with field visits. This analysis identified strengths and challenges in Wheeling's existing active transportation network, and informed and refined the transportation network recommendations previously identified by residents.

1.3.6 CELEBRATED WITH THE COMMUNITY AND ENCOURAGED PEOPLE TO STAY INVOLVED

Upon completion of a draft of this plan, the project team introduced the community to the recommendations through a tour. Participants received a hands-on lesson of the role active transportation plays in Wheeling and how continuing to work on active transportation issues in Wheeling will benefit the community.

Benefits of ActiveTransportation

There are many reasons people walk, bike and ride transit. By implementing this plan, the people in Wheeling will be able to enjoy all the benefits of active transportation.

1.4.1 HEALTH

Walking and biking are easy, affordable and convenient ways to get exercise. With sedentary lifestyles and obesity on the rise, promoting active transportation is more important than ever. People are encouraged to get at least 30 minutes of physical activity per day. That can easily be achieved by substituting one short car trip with a trip using active transportation.

1.4.2 SAFETY

Active transportation facilities provide safety benefits for all roadway users. Many of the built environment changes that support walking and biking have positive safety benefits for all roadway users by creating a safe place to walk, bike or access transit, and by encouraging more cautious driver behavior though complete streets design. PEOPLE WHO WALK AND BIKE have more opportunities to connect with others.



1.4.3 SOCIAL

People who walk and bike have more opportunities to connect with each other. More connections encourage people to be active, happy and socially engaged.

WALKING AND BIKING provide transportation choices.



1.4.4 TRANSPORTATION

Walking and biking are more than just recreational activities. They are ways to get around in a community. For certain trips, especially at rush hour, walking, biking and riding transit can be faster than driving. Active transportation provides transportation options for people of all ages and abilities. Approximately one third of all Americans don't drive. Older adults, children, people with disabilities, and low-income residents also need a way to get around. They depend on walking, biking and transit for their transportation needs.

ACTIVE TRANSPORTATION connects local residents to local businesses



1.4.5 ECONOMIC

Walking and biking are affordable ways to travel. The cost to an individual who owns, maintains and drives a car on a regular basis is about 12 times higher than transportation costs for a person who relies on walking, biking and transit. A complete and well-connected active transportation network also has a positive effect on property values and local spending.

1.4.6 ENVIRONMENTAL

Shifting motor vehicle trips to walking, biking or transit reduces greenhouse gas emissions and contributes to cleaner air. In addition to the benefits experienced from using active transportation, the Village of Wheeling can expect other benefits from adopting this plan.



AN ACTIVE TRANSPORTATION PLAN communicates a community's transportation needs.

1.4.7 GRANTS AND FUNDING OPPORTUNITIES

Almost all state and federal sources of grant funding for municipalities to improve infrastructure, advance policy, and offer programming require an active transportation plan outlining the goals of the community. Having a plan increases Wheeling's chances of receiving grant funding.

1.4.8 BUILDING PARTNERSHIPS

The process of developing an active transportation plan in Wheeling will help to maintain existing partnerships and create new ones with common goals.

1.4.9 COORDINATION

An active transportation plan facilitates coordination among the Village, local school districts, the park districts, the forest preserve, developers, Cook County, and Illinois Department of Transportation. A plan helps to communicate priorities with other agencies and take advantage of implementation opportunities.

1.5 How to Read This Plan

This plan is organized into chapters based on Wheeling's goals, objectives and recommendations for improving biking, walking and access to transit in the Village. Within each chapter are several objectives that support the chapter's goal. And for each objective there are recommendations, actions or specific strategies and tools that can be used to reach the objective.

#	GOAL
#.#	OBJECTIVE
#.#.#	RECOMMENDATION/ACTION
	TOOL/STRATEGY
#.#.#	MAP (NETWORK ONLY)

The final chapter, Implementation includes information on how to prioritize the plan's recommendations.

COORDINATION

Represents the general amount of time and coordination from the Village as well as cooperation with outside agencies needed from project initiation to project completion

HIGH: Requires coordination with multiple jurisdictions

MEDIUM: Requires some coordination with outside agencies

LOW: Requires low level of coordination with other agencies

COST

Represents a rough estimate of the dollars necessary to plan, design, construct and/or execute a specific strategy

HIGH: High-cost project, usually involves significant construction

MEDIUM: Mid-cost project

LOW: Low-cost project that involves minimal construction (e.g., signs or paint)

COMMUNITY INPUT

Represents the preference of community members based on feedback received during the community engagement phase of the planning process

HIGH: Received many public comments on safety or importance of strategy

MEDIUM: Received some public comments on safety or importance of strategy

LOW: Received few public comments on safety or importance of strategy

SAFETY

Represents the change in the level of safety for cyclists and pedestrians after implementation of the strategy

HIGH: Greatly reduces hostile environment for bicyclists and pedestrians based on national best practices for active transportation safety

MEDIUM: Reduces hostile environment for bicyclists and pedestrians based on national best practices for active transportation safety

LOW: Increases level of safety for cyclists and pedestrians in an area where there is some accommodation

IMPACT

Represents an estimate of usage of a particular strategy

HIGH: Likely to be a substitute for motor vehicle trips and/or provide a significant benefit for recreation. Significantly improves network connectivity

MEDIUM: A substitute for motor vehicle trips, but limited to a smaller area. For example, a project that connects two adjacent subdivisions but has little projected impact on the network as a whole

LOW: Slight increase in convenience, but may have a comparable existing alternate route or strategy

ACTIVE TRANSPORTATION NETWORK

Network Goal

Increase transportation options, accessibility and connectivity for people walking, bicycling and riding transit. ²¹ Develop a toolbox of built environment design practices that will create a complete, connected network for active transportation. Wheeling's active transportation network connects people to places so that people throughout Wheeling can safely and conveniently walk, bike or ride transit everywhere in the community. In order to build a complete network, Wheeling will need to use a set of tools specially designed for pedestrians and cyclists. All of these tools are already in use in Wheeling or other local communities and are recommended as best practices by national authorities to make transportation safe for cyclists, pedestrians and drivers.

The following sections are meant to illustrate the most commonly used tools for cyclists and pedestrians. For additional technical guidance the following guidelines are recommended:

FEDERAL GUIDANCE

Manual on Uniform Traffic Control Devices (MUTCD)

American Association of State Highway and Transportation Officials (AASHTO)

The Pedestrian Right of Way Accessibility Guidelines (PROWAG)

SUPPLEMENTAL GUIDANCE

National Association of City Transportation Officials (NACTO)

Complete Streets, Complete Networks: A Manual for the Design of Active Transportation

See Appendix B for a more complete listing of design guidance and resources.

SIDEWALK with buffer from the street.



PEDESTRIAN CROSSING SIGNS create awareness for pedestrian crossings.



2.1.1RECOMMENDED TOOLS FOR PEDESTRIANS

To ensure the safety and integration of pedestrians within Wheeling's Active transportation network, a special set of tools can be used. These tools are intended to accommodate pedestrians of all ages and abilities.

The following tools will help make a complete, connected pedestrian network in Wheeling.

SIDEWALKS

A well-designed residential sidewalk has a minimum five-foot unobstructed width (10 feet in busy commercial areas) to allow pedestrians and people in wheelchairs to maneuver comfortably.

In addition to the sidewalk, there should be a space separating pedestrians and vehicular traffic. The sidewalk buffer zone, also called a furniture zone, is the area between the sidewalk and the curb or vehicle travelway. It provides separation from traffic and improves the pedestrian experience.

In residential areas, this zone is often a planting strip for trees or grass. Most trees require at least six feet of open space around the trunk to reach maturity and maintain health. Utilities and other structures can be located in the buffer zone.

SIGNS

Signs are an effective way to welcome, alert, inform and direct pedestrians and other roadway users, especially at intersections and crossings. The MUTCD offers guidance for signage use in the transportation network, including pedestrian and bicycle signs. Some special districts use distinctive wayfinding signs, interpretive placemaking signs and banners to provide necessary user information and convey a sense of local identity.

CURB RAMPS WITH TACTILE STRIPS

Curb ramps with tactile strips make it easier for people in wheelchairs, visually impaired persons, children, and people with strollers to cross from the sidewalk to the street at an intersection. Tactile strips, which are usually red and bumpy, are especially important for visually impaired people because the strips help them distinguish between the sidewalk and the street. All crossings, marked and unmarked, should have curb ramps with tactile strips.



CURB RAMPS AND TACTILE STRIPS (RED) make it easier to cross from the street to the sidewalk.

CROSSING ISLANDS

Crossing islands reduce crossing distance and allow pedestrians to cross only one direction of traffic at a time. Crossing islands are most beneficial at unsignalized pedestrian crossings, but they also can be useful to shorten crossing distances at signalized intersections. One way to add a crossing island at multi-lane intersection is by "nosing out" the median.



CROSSING ISLANDS reduce crossing distance and traffic exposure time for pedestrians.

BUMP-OUTS

A curb bump-out is an extension of the sidewalk into the parking lane, reducing roadway width and creating a shorter crossing distance for pedestrians. Curb extensions can be used to slow vehicular traffic and increase awareness of pedestrians. Bump-outs may be used on arterial, collector and local roadways, and should not extend into travel space for bicycles.

PEDESTRIAN-SAFE TURNING RADIUS

The turning radius at a particular intersection needs to accommodate both the intended vehicles and any persons crossing the roadway. A wide turning radius facilitates fast turns by wider vehicles. A narrow turning radius will provide for a slower and safer turn by the vehicles. Intersections should be designed as compact as possible. On truck routes, designers should use the effective turning radius and allow turning to and from multiple receiving lanes.



BUMP-OUTS

also reduce crossing distance and traffic exposure time for pedestrians. VARIOUS TYPES OF CROSSWALKS



CROSSWALKS

Painted crosswalks alert drivers where to expect people crossing. Crosswalks are typically two white lines across the street, but other designs draw more attention to the crossing and tend not to wear away as quickly. Special paving or colored markings may also be used.





STOP BARS

Stop bars, also called stop lines, emphasize the presence of a stop sign or traffic signal(s) and specify where a driver must stop in order to not block the crosswalk.

PEDESTRIAN SIGNALS

Pedestrian signals indicate when a pedestrian is allowed to walk across a street. For a complete, connected pedestrian network, all intersections with traffic signals should have pedestrian signals at every corner.

PEDESTRIAN COUNTDOWN SIGNALS

Countdown pedestrian signals show how much time remains before the traffic signal changes and are designed to reduce the number of pedestrians who start crossing when there is not enough time to complete their crossing safely.

PEDESTRIAN DEMAND-ACTUATED SIGNAL

At traffic signals where pedestrians are expected during most signal cycles, the signal can automatically show a walk sign. For traffic signals where pedestrians are expected less frequently, a button can be placed for a demand actuated signal. This kind of signal shows a walk light only when pressed.

LEADING PEDESTRIAN INTERVAL

Leading pedestrian intervals are pedestrian signals that give pedestrians a head start in front of turning traffic when crossing the street. This tool should be used at traffic signals near parks, schools or in other areas with a higher than average number of pedestrians.



STOP BARS illustrate where a driver must stop.



PEDESTRIAN COUNTDOWN SIGNALS let pedestrians know when it is safe to cross.



PEDESTRIAN ACTUATED SIGNALS give pedestrians more time to cross, when pushed. PEDESTRIAN BEACONS flash when a user actives them.



PEDESTRIAN BEACONS

Pedestrian beacons are user activated signals used to control traffic and create additional awareness for pedestrians at unsignalized crossings. They are usually dark, allowing traffic to flow. When a pedestrian activates a beacon, they begin to flash, alerting drivers to a pedestrian.

RAILROAD CROSSINGS

Railroad crossings should be designed according to guidelines provided in the MUTCD. Whenever possible, the angle of the intersecting sidewalk or side path should be adjusted to meet the tracks at a 90-degree angle. An unobstructed pedestrian travel way should be maintained through the crossing area and tactile warning textures should be used to queue people with visually impairment.

STREET ALIGNMENT CHANGES

Changes in the street alignment can encourage travel speeds at the posted limit. Pedestrians benefit from slower vehicle speeds because drivers tend to be more cautious, and crashes have higher survival rates.

CHICANES

Chicanes are planted areas, curb extensions and/or medians that require drivers to slow down to negotiate bends in the travel space. Chicanes are most appropriate on local, residential roads and should not be used on streets with bus transit service or heavy truck traffic.

ON-STREET PARKING

On-street parking calms traffic by visually narrowing a roadway and creating additional buffer space between pedestrians and automobile traffic.





CHICANES

ON-STREET parking visually narrows a roadway MINI-ROUNDABOUTS direct drivers through intersections



TREES make a street feel narrower.



LIGHTING allows pedestrians to feel safe while walking at night.



MINI-ROUNDABOUT

Mini-roundabouts direct users through intersections in a predictable manner at slow speeds and set a tone of cautious driving. They have a fully mountable center island that can be driven over by emergency vehicles, buses or large trucks, when necessary. Mini-roundabouts are most effective when placed at the intersection of two local roads.

PLANTINGS AND TREES

Street trees and landscaping are essential parts of the urbanized ecosystem, enhancing the comfort and safety of people who live and travel along the street. Trees provide shade to pedestrians, have positive environmental benefits, and function as a traffic calming measure to visually narrow a roadway.

LIGHTING

Lighting creates safe and desirable places to walk at night and during daytime. Lighting selection can add value and aesthetic character to neighborhoods and commercial districts.

2.1.2 RECOMMENDED TOOLS FOR BICYCLISTS

To ensure the safety and integration of cyclists within Wheeling's Active Transportation Network, a special set of tools can be used. These tools are intended to accommodate cyclists of all ages and abilities. Some of these tools create awareness for cyclists on shared roadways, other tools help to create space for cyclists separated from traffic, but still on the roadway, while others create a shared space for cyclists and pedestrians off the roadway.

The following series of tools will help make a complete, connected bicycle network in Wheeling.

ON-STREET TOOLS

Because cyclists often move significantly faster than pedestrians and because cyclists are more visible to drivers on the roadway, bicycling on a street can often be safer than bicycling on a sidewalk. The following tools can be applied on a street, between the curbs of a roadway.

It should be noted that youth cyclists are encouraged to ride on the sidewalk, while adult cyclists are encouraged to ride in the street, when conditions are safe, and obey traffic laws.

SIGNED ROUTES

Bike route signs raise all users' awareness and acceptance of cycling. They make all residents aware of the most bike-friendly routes in their communities. Bike route signs are appropriate for any roadway that provides an essential link in a bicycle system, and can offer important, affordable motorist education and traffic calming. However, signage is no substitute for installation of an appropriate infrastructure to support safe cycling. Instead of posting simple "Bike Route" signs, the best solution is to implement a system of wayfinding signs that provide directions to specific destinations. These types of bikeway signs provide useful information and directions for cyclists, drivers and pedestrians alike.



SIGNED BIKE ROUTE with distance, destination, and direction indicated SHARED LANE MARKINGS reinforce where a cyclist should be riding.



BIKE BOULEVARDS are a place to bike.



WIDE PAVED SHOULDERS are a place to bike.



MARKED SHARED LANES

Marked shared lanes use a double chevron and bicycle marking, or "sharrow," in a lane intended for the joint use of motorized and bicycle traffic. Chevron symbols direct bicyclists to ride in the safest location within the lane, outside of the door zone of parked cars and areas where debris is likely to collect. Generally, marked shared lanes are a low-cost treatment suitable for lightly travelled collector and arterial roads.

BIKE BOULEVARDS

Bike boulevards, also called neighborhood greenways, are created by modifying a local street to give priority to bicyclists while maintaining access for local traffic. Traffic-calming measures reduce motor vehicle speeds and through trips; traffic controls limit conflicts between motorists and bicyclists, giving priority to bicyclists' through-movement. Some bike boulevards replace stop signs with mini-circles and mini-roundabouts to reduce stopping for cyclists. Bike boulevards and neighborhood greenways also include provisions for crossing intersecting arterial corridors. They are good options for low-volume, low-speed corridors. They also can play a prominent role in a bicycle network by serving as viable alternatives to major arterials, linking important community places, and connecting multiple intersecting bike routes.

PAVED SHOULDERS

Paved shoulders are the paved areas adjacent to motor vehicle travel lanes. They can be considered for corridors that cannot accommodate 5-foot bike lanes, or as an interim step for corridors where funding has not yet been secured to add bike lane markings and signs. Paved shoulders also can be considered on roads where demand for bike lanes is limited, or on rural roads where shoulders are shared with pedestrians. For safe cycling, paved shoulders must be at least 4 feet wide.

BIKE LANES

Bike lanes create a dedicated space for cyclists on a roadway. They are appropriate on streets with moderate to heavy traffic. Bike lanes are indicated by on-street markings, which can be supplemented with signage. Bike lanes reinforce proper roadway etiquette, raise the visibility of bicyclists, and help both bicyclists and drivers behave predictably when sharing road space. For safe cycling, bike lanes should be 4'-6' wide. If more than 6' is available, consider buffered or protected bike lanes.

BUFFERED BIKE LANES (PAINTED SEPARATION)

Buffered bike lanes use a painted buffer area to separate the vehicle travel lane from the bike lane. This buffer, usually 2 to 3 feet wide, can provide sufficient separation to improve cyclists' comfort and safety on heavily traveled arterial corridors. Where there is sufficient space within the curb-to-curb area, buffered bike lanes provide a more affordable solution than a shared-use path. Buffers also can be used between the bike lane and onstreet parking, to separate the lane from the door zone.

PROTECTED BIKE LANES (PHYSICAL SEPARATION)

Protected bike lanes (also called cycle tracks or green lanes) are bike lanes separated from vehicle traffic by a curb, rail, or bollards, providing dedicated space for bicyclists who are not comfortable riding on busy streets. Cycle tracks typically are wider than bike lanes, allowing cyclists to ride side-by-side or to pass each other.



BIKE LANES designate a place on the roadway exclusively for cyclists.



BUFFERED BIKE LANES have a painted buffer between cars and cyclists.



PROTECTED BIKE LANES have a physical separation between cars and cyclists.

ROAD DIETS

Road diets use the existing roadway, without expanding the paved surface, they reconfigure the lane width to add multimodal capacity, on-street parking and/ or a turn lane. There are many types of road diets, but the two most common are described below.

Consolidate number of travel lanes: Some roads with four travel lanes, two in each direction, do not need the additional travel lane, except for left turning traffic. Traffic might flow more smoothly with one travel lane plus a center left turn lane. So, a four-lane roadway can be re-striped as a three-lane roadway, and additional roadway can be used for on-street parking or a bike lane.

Reduce lane width: Minimum roadway width, while maintaining capacity for a travel lane is 10 feet. Many roads are built with 12 foot or wider travel lanes. If sufficient width is available, travel lanes may be repainted at the minimum width, and the additional roadway width can be used for bike lanes or on-street parking.

SIDE PATHS accommodate cyclists and pedestrians.



OFF-STREET TOOLS

Sometimes, the best way to accommodate cyclists is by creating a separate path or trail that is shared with pedestrians. The following are a set of tools that can be used to accommodate pedestrians and cyclists, separate from the roadway.

SIDE PATHS

Side paths are paved concrete or asphalt paths wide enough to accommodate both pedestrians and cyclists. They are typically a minimum of 8-foot wide with 2 feet of clearance on either side of the path. Side paths offer cyclists a safe place to bike offstreet when there is no space for a bike lane, or it is unsafe to bike on the street. They should be installed parallel to arterial and collector streets in areas where there are only a limited number of driveways.

CUT-THROUGHS

Cut-throughs offer pedestrians and cyclists shorter and more direct routes to adjacent residential neighborhoods, schools, or parks. They are usually short sections of sidewalk or side path.

CUT-THROUGHS provide a shortcut for people walking and on bicycles.



TRAILS

Trails are a place for recreation as well as transportation.

PAVED TRAILS

Paved trails are off-street paths, usually not paralleling a roadway. Trails should be at least 8 feet wide with 2 feet of clearance on either side. However, a 10- to 12-foot paved trail with additional clearance is recommended.

UNPAVED TRAILS

Unpaved trails are typically the same width as paved trails, but instead of concrete or asphalt, surfaced with crushed limestone. This ensures accessibility for people with disabilities. Dirt trails (such as Des Plaines River Trail in the Wheeling area) do not meet those requirements.





TRAIL WITH CRUSHED LIMESTONE

PAVED TRAIL

"U" BIKE RACKS are ideal for shortterm bike parking, and covered bike racks are ideal for longerterm bike parking.







BIKE PARKING

Having a safe, secure place to leave a bike is an important part of traveling by bicycle. Racks should be located within clear view of the destination's entranceway, preferably as close as the closest motor vehicle parking space, and no more than 50 feet away from the entrance. If multiple racks are clustered in a visible and signed location, they can be sited up to 100 feet away from the entrance. If racks are placed further away than this, cyclists are likely to ignore the racks and look for a closer place to lock up.

Bicycle parking should be located throughout the community on every block with stores or restaurants, at every school, park and recreational facility and at every place of employment. For destinations frequently visited by cyclists or where bicycles will be parked for a longer period of time, such as at a Metra station, covered bicycle parking should be considered in addition to racks.

Bicycle rack selection is important. A good rack has the following qualities:

Support the bicycle upright by its frame in two places

Prevent the wheel of the bicycle from tipping over

Enable the frame and one or both wheels to be secured

Support bicycles without a diamond-shaped frame with a horizontal top tube (e.g. a mixte frame)

Allow front-in parking: a U-lock should be able to lock the front wheel and the down tube of an upright bicycle

Allow back-in parking: a U-lock should be able to lock the rear wheel and seat tube of the bicycle

The rack element should resist being cut or detached using common hand tools, especially those that can be concealed in a backpack. Such tools include bolt cutters, pipe cutters, wrenches, and pry bars.

By choosing racks with a unique color or shape at high-visibility locations, the racks can add character to a community. The Village may also use a cost sharing program with businesses where businesses or the chamber of commerce purchase racks, and the Village installs them.

2.1.3 RECOMMENDED TOOLS FOR IMPROVING ACCESSIBILITY TO PLACES

There are several commonly occurring barriers to walking and biking to destinations in Wheeling. Applying the following design principals throughout the Village, especially during the development phase of a project, will ensure greater walkability to destinations in Wheeling.

The following tools will help the active transportation network connect to Wheeling's most important destinations.

COMMERCIAL DRIVEWAY CROSSINGS

Walking on an arterial or collector street is often the only option for a pedestrian wishing to access a shopping center, pedestrians are often not accommodated at shopping center and other driveways. In all new and reconstructed driveways, build sidewalk all the way across the driveway to illustrate that pedestrians have the right of way. If sidewalk is not available, stripe a crosswalk. Place a stop sign and stop bar at all driveway exits. Signs should be placed before the sidewalk so drivers do not stop in the sidewalk. Encourage narrow, shared driveways with the narrowest turning radius possible.

PARKING LOT DESIGN

Regardless of other modes of travel used, all trips begin and end with walking. Typically parking lots are designed for auto circulation. But for every car that enters a parking lot, one or more people are walking through that same lot. To better accommodate pedestrians within a parking lot, parking lot design should include crosswalks from the parking aisles to store entrances, as well as must stop for pedestrian signs and any other enhancements to accommodate pedestrians. Additionally, there should be a clear and convenient path for pedestrians and transit riders connecting sidewalk outside the shopping center to business entrances.



THERE ARE WAYS to accommodate pedestrians at driveway crossings.



THERE ARE WAYS to accommodate pedestrians in parking lots.

BIKE INTERSECTIONS

Bicyclists are particularly susceptible to crashes at intersections because motor vehicles are slowing down, speeding up and turning. There are special treatments that can be used at intersections to improve bicycle safety. Tools like thru-bike lanes, intersection marking and dashing, bike boxes, and bike turn lanes all can make the bicyclist more visible and thus less likely to be hit in intersections. Appendix B provides design resources that can be used for intersection improvements for bicycles. THIS INTERSECTION AT WILLIE AND DUNDEE is a pedestrianfriendly example of how a local road should intersect a collector or arterial roadway.



LOCAL/COLLECTOR OR LOCAL/ARTERIAL INTERSECTIONS

Because many neighborhoods do not offer cutthrough connections to nearby neighborhoods, pedestrians and cyclists often must use collector and arterial roads to access their destination. To better accommodate these active transportation trips, all intersections of local and collector roads or local and arterial roads should have the following:

Curb ramps with truncated domes at all corners of all intersections asslowing pedestrians to cross both the local and collector or arterial roads from all corners of the intersection

Stop signs, stop bars and painted crosswalks on the local legs of the intersection

Paint on the curbs or signs delineating the areas prohibited for parking including a minimum 20 feet before each intersection

LOCAL/LOCAL INTERSECTIONS

Although local streets are often pedestrian and bike friendly, ensuring that all corners of an intersection have curb ramps with truncated domes, stop signs instead of yield signs, marked crosswalks, and stop bars will make those intersections even safer for cyclists and pedestrians. Mini roundabouts and day-lighting (the removal of parking close to the intersection) can also be used at this type of intersection.

SCHOOL WALKING ROUTES

Identifying specific walking routes to schools that direct students along a route with crossing guards or encourage students to walk along streets with sidewalks can enhance student safety. BIKE RACKS AT London Middle School.



PARKS

All entrances to parks should be connected by sidewalk and all subdivisions adjacent to parks should have at least one park entrance for people walking or biking to the park.

Place bike parking at each playground or playing field.

SCHOOLS

Schools should be accessible by foot and bike from all sides. Build paths or sidewalks connecting all adjacent streets to schools.

All schools in Wheeling with students in grades K—12 should have bike racks. Place bike racks in a clearly visible location so the bikes can be monitored during the day.

Students walking and bicycling to school should be considered in all pick-up/drop off procedure plans.

INDUSTRIAL AND OFFICE PARKS

Many industrial and office parks in Wheeling are located on low volume roads that provide alternatives to walking or biking on arterial roadways. These roads should be signed as bike routes, and where right of way is available, sidewalks should be built, if missing. Each building should have bicycle parking for employees and visitors. The bike parking should be located close to the building entrance and easy to find. The Village may also consider additional transportation demand management strategies.

²² Increase access to recreation, employment, education and commercial centers.

The Village of Wheeling's active transportation network connects people to places in the Village. Providing bicycle and pedestrian access to important destinations will help people in the community travel to work, school, shopping or recreation in the Village using an active mode of transportation.

2.2.1 RECOMMENDATIONS FOR IMPROVING ACCESS TO PLACES

Based on input from more than 225 people within the Wheeling community, the following places were identified as the most important destinations. Most are places that community members visit frequently. The network was designed to provide safe and convenient routes to each of these places in Wheeling.

MILWAUKEE AVENUE BUSINESS DISTRICT ("RESTAURANT ROW")

Improve pedestrian connections between the residential and retail zones by providing a pedestrian crossing on Dundee Road, slightly west of Milwaukee Avenue.

Improve pedestrian access to businesses along Milwaukee Avenue by creating safer and more frequent crossings across Milwaukee Ave.

Decrease the likelihood of pedestrian crashes by encouraging new businesses to share driveways with existing, adjacent businesses, and encourage existing businesses to consolidate driveways.

As a traffic-calming measure, and as a way to create a more significant buffer between the roadway and pedestrian way, allow on-street parking during off-peak hours.

Create a more pedestrian friendly environment along this corridor by revising the development requirements to include wider sidewalks, street trees, lighting and other street furnishings, as well as requiring buildings to be built closer to the street with parking in the rear.



A PEDESTRIAN on Milwaukee Avenue.

A FAMILY WALKING TO TARGET faces many barriers.



LAKE COOK ROAD/MCHENRY ROAD SHOPPING DISTRICT

Facilitate pedestrian access to this shopping area by formalizing cut throughs from near-by subdivisions.

Create safer driveway crossings for pedestrians by striping crosswalks across driveways.

For traffic signals in this area, all sides of the intersection should have crosswalks and demand-actuated pedestrian signals.

BUSINESS PARK AT WOLF ROAD AND PALATINE ROAD

Encourage walking and biking within the business park by installing bike lanes on the street and upgrading any missing or damaged sidewalk.

Connect this business park to the active transportation network with bicycle facilities on the Palatine frontage road and Wolf Road.

Install pedestrian signals at the intersection of Wolf Road and Palatine Road.

Explore opportuniites to better connect Pace bus routes to this office park

THE BUSINESS PARK could be an inviting place to walk or bike



MUNICIPAL CAMPUS HERITAGE PARK INCLUDING, METRA STATION, VILLAGE HALL, RECREATION CENTER, AQUATIC CENTER

Install signage within the campus directing people to the Metra station using the existing paths.

Install bike route signage directing cyclists to the north, south, west and east access points once the on-street accommodations are in place.

Monitor usage of bike parking at the various facilities and adjust quantity of parking as needed.

Complete the Heritage Park Master Plan.

INDIAN TRAILS PUBLIC LIBRARY

Add a mid-block crossing with signs and a ladder-style crosswalk to help people safely cross Schoenbeck Road.

Install additional lighting near the crossing to enhance pedestrian safety.

Explore opportunities for pedestrian cut throughs in Horizon Park and near-by subdivisions



HERITAGE PARK AND MUNICIPAL CAMPUS are popular desitnations for people walking and biking in Wheeling

INDIAN TRAILS LIBRARY is a place people woudl like to walk to in Wheeling
2.2.2 RECOMMENDATIONS FOR IMPROVING ACCESS TO TRAILS AND FOREST PRESERVES

Trails in or near Wheeling offer cyclists and pedestrians an off-road place to walk and bike. Community members use the trails in Wheeling as a place for both recreation and transportation. Yet the trails can be challenging to access on foot or bike.

PROSPECT HEIGHTS BIKE PATH

The Prospect Heights Bike Path is a paved trail running east-west through the southern portion of the Village. One end of the path terminates at Lake Arlington in Arlington Heights, and the other end terminates at the Prospect Heights Metra station. Land uses near the path include residential, offices and

STREET CROSSINGS

The Prospect Heights Bike Path crosses several arterial streets. These streets can be challenging for trail users to cross. In the near term, signage at all trail crossings should be improved to include ladder-style crosswalks, as well as pedestrian crossing and "Must Stop for Pedestrians" signs in the roadway. For increased safety, a pedestrian crossing island should be installed.

SIDEWALK CONNECTING TO TRAIL

To connect people living near the trail, but not in a subdivision or apartment complex with direct access to the trail, sidewalk and bicycle facilities on Schoenbeck, Elmhurst and Wheeling Roads should be prioritized for installation.

TRAIL ACCESS ACROSS RAILROAD TRACKS

The Metra North Central Service tracks are a barrier for people wishing to access the trail from the east. A pedestrian railroad crossing or underpass should be considered at this location to connect the bike path to destinations east of the tracks.



PROSPECT HEIGHTS Bike Path near Palatine Road.



A DRIVER'S PERSPECTIVE of the bike path crossing.



CYCLISTS AND PEDESTRIANS often walk across the train tracks at Palatine Road.

CYCLISTS GATHER on the Des Plaines River Trail near Potawatomi Prairie.



CONNECTION TO LAKE ARLINGTON

The Prospect Heights Bike Path stops just short of connecting to the trail around Lake Arlington. Wheeling should work with Arlington Heights to improve the trail crossing at Schoenbeck as well as clearly marking a bicycle route to Lake Arlington. In the long term, Wheeling, in partnership with Arlington Heights could explore the possibility of routing the trail north along Schoenbeck to Glenbrook Drive, and then through the Com Ed right of way that connects to the northeast corner of Lake Arlington.

DES PLAINES RIVER TRAIL (DPRT)

The Des Plaines River Trail is part of a 50-mile off street trail system connecting through Wheeling north to Wisconsin and south to Chicago. Wheeling has two places to access the trail, one at Potawatomi Prairie and another off Dundee Road. The trail has an unpaved, dirt surface through Wheeling.

ACCESS FROM DPRT TO THE POTAWATOMI PRAIRIE FOREST PRESERVE

The Potawatomi Prairie provides access to the Des Plaines River Trail near the intersection of Milwaukee Avenue and Wolf Road. The Village has plans to enhance this access with signage, a prairie restoration, and canoe launch, but the work will need to be completed in phases due to funding challenges.

ACCESS FROM DPRT FORM DUNDEE ROAD

Sidewalk along Dundee Road also connects to the DPRT from Wheeling, but no pedestrian or bicycle connections exist east of the trail. Wheeling should expedite the installation of a side path along Dundee, and work to improve pedestrian and cyclist visibility at the trail crossing.

CURRENT ENTRANCE to the Des Plaines River Trail at Potawatomi Prairie.



A PATH WORN BY PEDESTRIANS walking or biking to the Des Plaines River Trail along Dundee Road.



ACCESS TO DPRT AT DAM 1

Several decades ago, Dam 1, at Hintz Road and Milwaukee Avenue was also an access point to the trail. Restoration of this access point should be explored.

ACCESS TO DPRT FROM RESIDENCES AND BUSINESSES WEST OF MILWAUKEE AVENUE

Residences and businesses west of the Des Plaines River are located very close to the trail. Yet accessing the trail can be challenging due to the traffic on Milwaukee Avenue. Developing a local, connecting branch of the trail between Milwaukee Avenue and the Des Plaines River will invite more people living near-by to access the trail. Consideration for a pedestrian crossing on Milwaukee Avenue near Mors Avenue should also be made.

EXISTING SURFACE OF DES PLAINES RIVER TRAIL. Currently the trail is not usable after a rain or by people with physical disabilities.

IMPROVEMENT TO TRAIL SURFACE

Currently, sections of the DPRT has a packed dirt surface. It is narrow, muddy after a heavy rain, and does not meet Americans with Disabilities Act standards for trails. To bring this trail up to current standards, and increase trail usability, the trail should be paved or resurfaced with crushed limestone.

PARTNERSHIP WITH FOREST PRESERVE DISTRICT AND ADJACENT COMMUNITIES

Much of the Des Plaines River Trail lies on land owned by the Forest Preserve District of Cook County. To develop a more accessible, usable trail, Wheeling will need to partner with the Forest Preserve District as well as adjacent municipalities.

WHEELING Proposed Bicycle and Pedestrian Network Recommendations Prepared By: Active Transportation Alliance and TranSystems 2/28/2012 Data Source: Village of Wheeling

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Pace Bus Shelters Corridor Recommendations

Metra Stations

- Metra Stations Existing Facilities Bike Lane Off-Street Path Sidepath
- Sidepath

Buffered Bike Lane

- Paved Shoulder
 Signed Bike Route

 - Pedestrian Priority Zone
- 🛹 Parks



23 Develop a local network of safe routes for biking and walking that serves people of all ages and all abilities.

The Village of Wheeling controls most of the roads within the municipal boundary. To support short trips within Wheeling, the Village should consider the following bicycle and pedestrian improvements.

2.3.1 SIGN AND MARK ROUTES ALREADY USED BY CYCLISTS AND PEDESTRIANS "IN THE KNOW."

SIGNED ROUTES

Some local streets are already bicycle friendly, and people in Wheeling are using those streets to get around. Yet many people are not aware of the best or most direct route. To create awareness for commonly used local bike routes, a network of bike route signs should be installed to alert all roadway users. Signs should include distance, direction and routes to popular destinations. As additional bicycle facilities are installed, bike route signs should also be updated. A map of the signed routes should also be published and available on the Village's website.

BIKE BOULEVARDS

For enhanced safety and awareness of bicycling, as well as a way to calm traffic, bicycle boulevard treatments, such as curb extensions and onstreet markings should also be considered.

One street, Strong Avenue, is the signed-route that is a strong candidate for bike boulevard enhancements. This route provides a safe cycling and walking alternative to Dundee and connection to numerous other bike routes. The intersections of Strong with Milwaukee, Dundee and Wolf may be studied for application of bike boulevard treatments. In addition, other signed routes can be enhanced with shared lane markings.

2.3.2 COMPLETE AND ENHANCE WHEELING'S PEDESTRIAN NETWORK ON ALL STREETS.

COMPLETE SIDEWALK NETWORK GAPS

Although sidewalks exist in many neighborhoods in Wheeling, there are gaps in the sidewalk network. The Village can complete the pedestrian network by filling in these gaps while prioritizing providing better connections to the important places in Wheeling. Appendix D has a model policy to assist the Village in determining which locations to prioritize for sidewalk installation .

PEDESTRIAN PRIORITY ZONES

The blocks surrounding schools, parks, community centers and shopping areas often have a higher volume of pedestrian traffic than other parts of the Village. To emphasize the presence of pedestrians, the Village can apply additional tools to calm traffic and make it safer and easier for people to walk to key destinations in the Village. Examples of the tools that can be used include:

Higher visibility crosswalks

Bump-outs

Stop signs

Stop bars

Chicanes and other traffic calming measures

Mini-roundabouts

2.3.3 DEVELOP A SERIES OF PEDESTRIAN AND BIKE CUT-THROUGHS TO INCREASE CONNECTIVITY BETWEEN NEIGHBORHOODS.

Many neighborhoods in Wheeling offer limited connectivity to other adjacent neighborhoods. In order for a person to walk or bike between adjacent subdivisions they often have to use an indirect route that adds additional time and distance to a trip by requiring a person to exit one subdivision and walk or bike along an arterial road to go to a destination in an adjacent subdivision. To shorten trip time and distance for cyclists and pedestrians, the Village should construct cut-throughs between subdivisions, apartment complexes, parks and at other locations where there is an opportunity to shorten bicycle and pedestrian trips.



CHAPTER 2 | ACTIVE TRANSPORTATION NETWORK

^{2.4} Make it possible to travel on or parallel to major roads using active transportation.

Many of the arterial and collector streets in the Village are controlled by Cook County Highway Department or Illinois Department of Transportation. Many of these streets will require collaboration with one of these outside agencies to accommodate cyclists and pedestrians on these streets.

2.4.1 STRATEGIES FOR ARTERIAL STREETS

Many important community, educational, retail and employment destinations are located on collector and arterials streets. In Wheeling, these streets frequently lack facilities for pedestrians and cyclists, yet may be the only route into an adjacent suburb. The Cook County Highway Department or the Illinois Department of Transportation maintains many of these streets, and Wheeling will have to work with these agencies when implementing facilities on these streets.

INSTALL SIDEWALK OR SIDE PATH WHERE GAPS IN THE NETWORK EXIST.

Several arterial and collector streets in Wheeling lack accommodations for pedestrians. Sidewalk or side path should be installed on all arterial and collector streets in Wheeling, with priority given to pedestrian connections near popular destinations..

ADD BICYCLE FACILITIES WITH RESURFACING PROJECTS

Many arterial and collector streets in Wheeling have travel lanes for cars that are wider than required. On these streets, travel lanes can be narrowed, and bicycle lanes or buffered bike lanes could be installed, while still maintaining the same level of capacity for vehicles. To minimize costs, these projects can be done in conjunction with resurfacing projects.



CHAPTER 2 | ACTIVE TRANSPORTATION NETWORK

Make it easier to cross all streets on foot or bike.

To make it easier to cross the street, a series of intersections have been selected for improvements. Map 2.5.3, as well as the descriptions below, describes typical improvements that can be made at each intersection. Intersections and crossings can be the most challenging part of a bicycle or walking trip. Often intersections have limited accommodations for pedestrians and very rarely do they accommodate cyclists. Intersections are also the most common place for bicycle and pedestrian crashes to occur. In Wheeling there are many wide intersections where cyclists and pedestrians must cross four or more lanes of traffic to reach the other side. Besides traffic signals, which are typically spaced every half mile, there are few safe places for pedestrians and cyclists to cross the street. Developing more frequent street crossings, as well as upgrading existing intersections with pedestrian and bicycle accommodations will make it easier to cross all streets on foot or bike.

2.5.1 DEVELOP "COMPLETE INTERSECTIONS" AT ALL SIGNALIZED INTERSECTIONS AND AT KEY UNSIGNALIZED INTERSECTIONS.

"Complete" intersections are intersections where all modes; cyclists, pedestrians, autos, and transit can safely and easily cross the street. The following are descriptions of how treatments that may be applied in order to make "complete" intersections.



SIGNALIZED INTERSECTIONS should accommodate pedestrians at every corner.

S1—SIGNALIZED

Traffic signals can be a safe place for pedestrians and cyclists to cross the street. Yet many traffic signals in Wheeling have minimal or no accommodations for pedestrians. To accommodate pedestrians at all corners of all intersections, the following should be installed.

Demand actuated pedestrian countdown signals on all sides of all intersections

Striped crosswalks on all sides of the intersection

Sidewalk connecting to the intersection on all sides

ADA accessible curb ramps with truncated domes on all sides of the intersection

Depending on the vehicle and pedestrian traffic volumes, the following additional accommodations may be considered:

"Pork chop" style pedestrian islands at intersections with a right turn lane

Extend medians beyond the crosswalk and use them as pedestrian crossing islands, where medians exist or can be installed

Reduced turning radii or bump outs

Pedestrian crossing signs on roadway approaches

UNSIGNALIZED CROSSINGS could also be a safe place for pedestrians to cross the street



U—UNSIGNALIZED

Most pedestrians will cross the street where it is most convenient. Frequent formalized mid-block crossings can decrease random crossing movements. It is appropriate to provide formalized crossings at mid-block transit stops, commercial destinations, unsignalized intersections and other pedestrian origin and destination points.

"Zebra stripe" or "ladder style" hugh visibility crosswalks

Sidewalk connecting to the intersection from all sides

ADA accessible curb ramps with truncated domes

Must Stop for Pedestrians signs on all roadway approaches

Pedestrian crossing signs on all roadway approaches

Curb extensions or bump-outs

Pedestrian crossing island for multi-lane streets

Depending on the vehicle and pedestrian traffic volumes, the following additional accommodations may be considered:

Pedestrian crossing islands

HAWK signals or other pedestrian activated signals

Pedestrian arms for railroad crossings

Reduced turning radii

2.5.2 DESIGNATE A SERIES OF INTERSECTIONS AND SURROUNDING ZONES BASED ON LAND USE TO BUILD UPON WHEELING'S SENSE OF PLACE.

Beyond basic accommodations for pedestrians and cyclists at each intersection, additional enhancements can be added to create a sense of place within the Village.



GATEWAY INTERSECTIONS use signage and trees to welcome people into the Village.

S2—GATEWAY INTERSECTIONS

S2 intersections are gateways into the Village signifying an entrance to the Village or a district. Signs, banners and trees can be used to welcome residents and visitors into the community. In addition to the standard pedestrian and bicycle accommodations as described in S1 type intersections, the following amenities may also be considered for S2 intersections.

Countdown pedestrian signals

Rows of street trees along parkway to define entryway

Gateway signage enhanced with landscaping

Decorative paving at crosswalk visually connecting both sides of roadway

Large planting beds to address vehicular scale

Lighting hidden within landscaping within the entire gateway area providing night time effect

Landscaping to be arranged in masses to direct attention to Gateway signage

Through bike lanes at the intersections of Schoenbeck and Hintz, and Palatine and Wheeling

HUB INTERSECTIONS are centers of activity in the Village.

S3—HUB INTERSECTIONS

Hubs indicate a center of activity within the Village. A higher volume of pedestrians and cyclists can be expected at hubs. In addition to the standard pedestrian and bicycle accommodations as described for S1 intersections, the following amenities are suggested for consideration at S3 intersections.

Ornamental lighting with banners

Pedestrian scale lighting

Countdown pedestrian signals

Median with plantings

Special paving at crosswalks

Street trees

Decorative paving

Seasonal planting

Planters

Through bike lanes or combined bike lanes/turn lanes on all roadways with bike lanes

WHEELING Intersection Improvement Recommendations

Prepared By: Active Transportation Alliance and TranSystems 10/2/2012 Data Source: Field review



- Retra Stations
- Existing Traffic Signal
- X Existing crossing (no traffic signal)

Intersection Type

S1-Signalized
 S2-Gateway
 S3-Hub
 U-Unsignalized Crossing



^{2.6} Upgrade and revise transit service to support active transportation.

2.6.1 MODIFY EXISTING TRANSIT ROUTING TO CONNECT RESIDENTS TO MAJOR RETAIL AND SERVICE DESTINATIONS NOT CURRENTLY SERVED BY TRANSIT.

Destinations near the Lake Cook Road / McHenry Road intersection lack transit service. Wheeling has two fixed bus routes that travel through the village during peak and non-peak periods: Route 234 and Route 272. Additional peak-only routes exist to shuttle residents to and from Metra stations. While these routes appear to provide adequate service coverage to destinations while meeting current market demand, one particular location is lacking transit service: the shopping centers in the northwest corner of Wheeling. This area along Lake Cook Road includes many potential destinations including Walmart, Target, Sam's Club, Jewel-Osco, restaurants, and small retail stores.

ROUTE 234 REALIGNMENT

Route 234 can be realigned to travel on a threemile loop along Buffalo Grove Road, Lake Cook Road, McHenry Road, and Elmhurst Road as shown in on the map (p.53). The bus would travel through a shopping center between Lake Cook Road and McHenry Road. The existing one-mile route segment on Dundee Road between Buffalo Grove Road and Elmhurst Road would be discontinued.

According to Pace, Route 234 has appeared on Pace's "Review" list many times in the past several years ("Review" means a route is not meeting certain minimum service standards). This opens up the potential for Route 234 to be realigned to attempt to better meet operating standards while better serving transit demand in Wheeling.

Regional Transportation Authority (RTA) recently developed a Transit Demand Index (TDI) based on a combination of factors to represent areas of low, moderate, and high transit demand as well as areas where transit is not necessary. The map on p.53 includes the TDI in Wheeling and shows that the proposed Route 234 realignment would pass through areas of high transit demand that are not currently served by a fixed-route bus. In addition to the shopping centers on Lake Cook Road, high density residential areas along McHenry Road would gain transit service.

This proposed realignment has not been approved by Pace, who is the operator of fixed-route service in Chicago's suburbs. Additional cost resulting from the additional route mileage would need to be covered by the commercial businesses served, local municipality or other local agency, or Pace. Prior to implementation, existing riders should be surveyed to gather their input and to fill in the gap in data regarding how many through riders exist between the southern portion and northern portions of the route. Despite potential negative impacts, it is expected that the Route 234 realignment would attract many additional riders and improve the quality of life for Wheeling residents.



PACE AND THE VILLAGE can work to align bus routes with key destinations

2.6.2 WORK WITH EMPLOYERS IN WHEELING'S OFFICE AND INDUSTRIAL PARKS TO PROVIDE TRANSIT SERVICE TO EMPLOYEES.

Office and industrial parks throughout Wheeling and particularly in the southeastern portion of the village lack transit service. Due to the nature of the surrounding land use and disparate trip patterns of their workers, office and industrial parks are difficult to effectively serve with fixed-route bus service.

PROMOTE EXISTING ALTERNATIVE TRANSPORTATION PROGRAMS .

Pace has existing vanpool programs which could be utilized by Wheeling workers but may not be well known. It is recommended that the Village work with Pace to promote these programs to Wheeling employers. Pace offers different types of Vanpool Incentive Programs, two of which are the Metra Feeder and the Traditional Vanpool.

By promoting these existing programs to corporate leaders and human resources departments, workers can learn about and benefit from these transportation options.

UTILIZE THE METRA FEEDER PROGRAM

The Metra Feeder program allows for a Pace van to be parked at a Metra station near the worksite, so that participants (i.e. employees of a firm located in Wheeling) can take the train and then use the van to complete the commute. Five to 13 participants share the van to get to their destination. To qualify for the program, at least half of the participants must purchase a Metra monthly pass or 10-ride ticket. Each participant also pays a monthly fee.

Metra Feeder Vanpools can be implemented relatively quickly because it is an existing program. Applicants can complete forms on Pace's website after collecting at least five participants per van. When compared to other transportation options, this is an affordable alternative to driving a car. The flexibility and lack of centralized requirements (no phone number to call or vehicle to wait for each day) make this an attractive option for employers who have many employees who can take Metra but have difficulty reaching the job site without a vehicle.



UTILIZE THE PACE TRADITIONAL VANPOOLS PROGRAM

Pace Traditional Vanpools are another alternative for groups of employees who live and work near one another. This option is for participants who cannot take Metra. The Traditional Vanpool is designed to transport a group of 5-13 people to work in a Pace van. Employees that live and work near one another (i.e. a group of Wheeling residents who work at the same location) and share similar schedules can form a group that conveniently gets them between home and work. Each rider pays a low monthly fare based on distance and number of participants.





2.6.3 SUPPORT INCREASES IN FREQUENCY ON METRA NORTH CENTRAL SERVICE (NCS).

The Metra North Central Service (NCS), which serves the Village, has about half of the service of other Metra lines, thus impacting the attractiveness of the service to potential riders. By increasing service frequency, Wheeling residents and workers will be attracted to the convenience of having more options of when to travel on Metra. The service will accommodate a larger number of passengers' schedules and thereby allow for the possibility that more people will ride.

2.6.4 ENSURE BICYCLE AND PEDESTRIAN ACCESS TO TRANSIT.

If someone can easily and conveniently walk or bike to a transit stop, they are more likely to choose transit. Almost all of the Village's existing transit service follows arterial roads. Most, but not all of the existing transit stops are on streets with sidewalk. Yet sometimes it takes more than just a connecting sidewalk to make transit ridership appealing.

Pace has written Development Guidelines that describe ways to increase passenger comfort and convenience. Guidelines suggest the following:

Paved passenger waiting area

Curb ramps at all corners

Passenger shelters at high volume boarding areas

Adequate lighting

Display of route information

Bicycle storage

The Village should work towards ensuring that all bus stops in the Village meet Pace's Development Guidelines.



ACTIVE TRANSPORTATION POLICY

Policy Goal

Leverage municipal policies to develop a comprehensive active transportation network that is safe and inviting to all users.

an Leverage support of key government agencies to foster active transportation.

There are many levels of government that play a role in the transportation policy that impacts residents and visitors in Wheeling. The Village can maximize the impact of this plan by coordinating its efforts with those of other government agencies and by leveraging other agencies' policies to support Wheeling's efforts. The Village of Wheeling and its partners should leverage policies to develop a comprehensive active transportation network that is safe and inviting to all users. Having a strong set of policies in place will help to institutionalize support for active transportation. Policies ensure that as the Village's built environment changes, it will change in ways that support active transportation. Policies trigger the best solutions the first time a project or decision is considered, preventing the need for expensive retrofits in the future. Establishing policies sends a clear message to partner agencies that the Village wants people walking and biking in Wheeling.



WHEELING BENEFITS FROM ITS CLOSE RELATIONSHIP with Cook County Forest Preserve District.

3.1.1 ADOPT A COMPLETE STREETS POLICY.

More than 350 governments across the United States have enacted policies that pledge to accommodate all users, regardless of age, ability or travel mode, on all roadways. The Village of Wheeling, through this plan, has demonstrated its commitment to multi-modal transportation. The enactment of a Complete Streets policy will codify this commitment into law. A Complete Streets policy will also establish Village priorities for the other agencies that manage roadways in the Village.



COMPLETE STREETS at work.

3.1.2 ADOPT A MUST STOP FOR PEDESTRIANS REQUIREMENT IN ACCORDANCE WITH STATE LAW.

Illinois state law requires motorists and bicyclists to stop for pedestrians in crosswalks. The Village should adopt a similar local ordinance to empower Village police to enforce this safety requirement.



WALKING SCHOOL BUS organized by a walk to school committee in Mount Prospect.



3.1.3 COORDINATE WITH LOCAL SCHOOL DISTRICTS TO ENHANCE ACTIVE TRANSPORTATION.

School districts in Wheeling were key stakeholders in the development of this plan. The schools have the ability to foster active transportation among their employees, students and parents of students. The school districts should:

Start active transportation committees at each school to promote walking and biking to school

Develop and adopt individual school travel plans that identify safe routes to school and strategies for promoting active transportation

Review areas designated for "hazard route" busing and work towards solutions that make these areas less hazardous

The Village has existing requirements specifying that schools should be located within "walking distance" of residential areas. The land dedication requirements of the municipal code should be enhanced by providing a clearer definition of the term "walking distance." Generally, students should not be required to walk more than one mile to school, and only along safe routes.

³² Ensure Village of Wheeling policies reflect best practices for promoting active transportation.

Proactive design, construction and maintenance of facilities can lead to a comprehensive network of walking, biking and transit facilities. Policy and procedure enhancements can further improve the transportation environment by prioritizing the public health and safety of the community. This objective focuses on strategies to improve safety, land use connections and other policies that facilitate active transportation.

3.2.1 CONTINUE SUPPORT FOR AND ENFORCEMENT OF EXISTING POLICIES.

Wheeling has several existing ordinances that reflect national best practices for promoting active transportation. These ordinances go a long way toward enhancing the safety and convenience of Wheeling's transportation system for pedestrians, bicyclists and transit riders. As such, the following ordinances should be retained and aggressively enforced:

Section 9.28.010: Designation of stop intersections

Section 11.08.100: Prohibition on depositing of leaves on roadways

Section 11.16: Procedures for ensuring sidewalks are clear of snow

Title 19: Zoning procedures that encourage multi-use, transitoriented development RESIDENT WALKING in the winter.



EXISTING BIKE LANE on Lexington.



3.2.2 UPDATE THE SNOW REMOVAL ORDINANCE.

The Village of Wheeling has procedures for ensuring sidewalks are clear of snow. The requirements in Section 11.16 of the Municipal Code establish penalties for non-compliance. However, the code only provides for fines for non-compliance; it does not define procedures to ensure that the snow is actually removed following non-compliance. The Village should give its public works staff the power to remove snow from private facilities and bill the property owners for the service in addition to the applicable penalties.

3.2.3 ADOPT A POLICY TO MAINTAIN BICYCLE AND PEDESTRIAN FACILITIES.

This plan sets forth an ambitious schedule to create a comprehensive biking and walking network. In addition to completing the network, the Village must be committed to ensuring the network is maintained. The Village should adopt a policy ensuring that bicycle and pedestrian facilities on property owned or managed by the Village will be maintained at the same level as facilities for motorized vehicles. This will ensure that bikeways and sidewalks are free of snow, ice, debris, potholes, and other obstacles to active transportation.

3.2.4 ADOPT A POLICY REGARDING CONSTRUCTION ZONES.

The Municipal Code establishes certain procedures for construction practices in the public right-of-way. There is no provision to ensure that pedestrian and bicycle facilities in construction zones are maintained during the period of construction. The Village should ensure the availability of the transportation network for pedestrians and cyclists by requiring safe pedestrian and bicycle access through construction zones. National manuals for highway construction practices provide guidance on this issue. See Appendix D for guidance.

3.2.5 ADOPT A POLICY REGARDING TARGET SPEEDS FOR ROADWAY DESIGN.

The Village of Wheeling has established posted speed limits that are safe for active transportation on many local roads. However, the effective speeds (speed at which most vehicles are driven) on several of these roads are higher than the posted limits. This is because the roadways have been designed to support speeds higher than the posted speed limits. The Village should adopt a policy directing its staff and consultants to design, construct and operate all roadways in a manner that encourages travel at a target speed.

3.2.6 UPDATE SPEED LIMITS ON LOCAL ROADS.

The Village has established individual posted speed limits for various roads in the community. The varying speed limits can be confusing to motorists and other users of the roadways. The Village should enhance safety by establishing a default posted speed limit of 25 miles per hours for local roads not designated as truck routes, collectors or arterials.

3.2.7 UPDATE THE LIST OF LOCAL YIELD AND STOP INTERSECTIONS.

The Village has designated numerous intersections as either yield or stop intersections. New guidance from national authorities has established best practices for designating intersections as yield or stop. In some cases, current yield signs may not be sufficient to inform motorists on who has the right of way. The Village could benefit from reviewing its current lists in light of the new national guidance. See Appendix D for guidance.



3.2.8 ADOPT A SIDEWALK INSTALLATION PRIORITIZATION POLICY.

This plan includes a comprehensive pedestrian network. Building it out will take many years. The Village could benefit from a clear policy establishing priority locations for sidewalk installations. The Village could also establish a "50/50" program through which the Village and property owners share in the cost for installing new sidewalks. A model policy can be found in Appendix D.

3.2.9 ADOPT UPDATES TO PARKING ORDINANCE TO FOSTER ACTIVE TRANSPORTATION.

The Village of Wheeling has numerous policies concerning where vehicle parking is permitted. In some instances, parked cars can foster active transportation by buffering pedestrians from busy roadways and parking spaces give motorists an opportunity to get out and be active. However, parking designs that impede biking and walking should be discouraged. The Village can enhance safety for active transportation users by adopting a ban on double parking and a ban on parking, stopping or standing in on-street bicycle facilities. REPLACING YIELD SIGNS WITH STOP SIGNS will improve traffic safety. MANY PEOPLE COMMUTE to businesses in Wheeling.



3.2.10 ADOPT A TRANSPORTATION DEMAND MANAGEMENT ORDINANCE TO ENCOURAGE ACTIVE TRANSPORTATION.

Transportation demand management (TDM) is a set of strategies that maximize the efficiency of a transportation network, especially at peak periods. Specifically, TDM seeks to encourage biking, walking, transit and alternative forms of transportation through employer-based encouragement and incentives. The Village of Wheeling will benefit from adopting these individual TDM strategies:

Reducing parking requirements for employers who demonstrate high numbers of employees commuting by active transportation

Incentivizing employer-facilitated carpooling, vanpooling or shuttle buses

Encouraging "parking cash-outs" where employees receive cash in lieu of subsidized parking

Directing Village revenues received from parking at Metra station towards transit improvements

Requiring large non-residential developments to develop a transportation demand management plan

³³ Provide safe accommodations for cyclists and pedestrians in all new development.

Wheeling is a community that is largely, but not completely, built out. The Village has an opportunity to enhance active transportation by ensuring that all new development, as well as future redevelopment, accommodates cyclists and pedestrians.

3.3.1 ENSURE STREET CONNECTIVITY WITHIN AND BETWEEN SUBDIVISIONS.

Existing subdivision development standards seek to create model places to live. However, the standards have the unintended consequences of isolating some communities. Small changes to the subdivision regulations could ensure that the neighborhoods are connected to each other. This would reduce travel times between neighborhoods and reduce traffic on collector and arterial roads. The regulations should also ensure that the subdivisions maximize street connectivity within the community to facilitate emergency access and minimize travel times. Enacting these changes will further the objectives established in the 2003 Comprehensive Plan to create better connections between neighborhoods.

3.3.2 UPDATE PARKING REQUIREMENTS FOR NEW DEVELOPMENTS.

The Village's existing parking requirements ensure adequate minimum parking in all developments. However, the requirements do little to encourage use of active transportation in exchange for reduced use of motorized transportation. The Village should reduce parking requirements for developments that provide bicycle and pedestrian facilities beyond those required by current law. The Village should also reduce parking requirements for businesses that demonstrate how they can feasibly share parking with other facilities. Village staff and the Plan Commission should regularly review parking requirements to ensure conformity with current best practices.

3.3.3 UPDATE THE BICYCLE PARKING ORDINANCE.

The existing bicycle parking requirements for Wheeling ensure the availability of parking for bicycles. However, the standards do not fully reflect national best practices for the design and installation of bike parking. Simple changes to the standards will ensure that the best-designed bike parking is available in Wheeling. See Appendix D.

3.3.4 UPDATE SIDEWALK REQUIREMENTS.

The Village of Wheeling requires a minimum sidewalk width of five feet in most locations. Areas with heavy pedestrian traffic benefit from wider sidewalks. Specifically, commercial areas should have sidewalks 10 feet wide, and areas around schools and parks may be considered for six-foot-wide sidewalks. In addition, a minimum five-foot buffer between a sidewalk or side path and roadway is recommended.

3.3.5 ENCOURAGE BEST USE OF DRIVEWAYS.

There are many parcels in Wheeling that have limited demand for driveways. The Village should ensure the most efficient use of land by requiring complementary facilities to consolidate and share driveways when feasible.

3.3.6 ENACT A FORM-BASED CODE FOR COMMERCIAL AREAS.

This plan, in support of the Village's comprehensive plan, establishes Milwaukee Avenue and Dundee Road as primary commercial areas. The environment for pedestrians could be enhanced if the businesses in this area were built and operated in a manner to encourage pedestrian access. Enacting formbased design requirements will help the Village create a pedestrian-focused built environment.

ACTIVE TRANSPORTATION PROGRAMS

Goal for Education, Encouragement, and Enforcement Programs

Enable people of all ages and abilities feel safe and confident while walking and biking. Provide education, encouragement and enforcement programs for active transportation users.

41 Educate the community about active transportation.

Understanding the rules of the road is essential for travelling safely, regardless of which mode is chosen. However, many community members may be unaware of the rights and responsibilities of non-motorized users and how to safely interact. Educational opportunities promote safer interactions by all road users.

Education should come in a variety of forms to reach youth, teens and adults. The following recommendations are meant to reach all community members and include messages tailored to each specific audience. Education, encouragement and enforcement programs are designed to motivate residents to walk or ride a bicycle safely and confidently. As the Village of Wheeling continues to build a complete, safe and attractive network of transportation options, more and more residents will begin to bike and walk throughout the community.

Programming is a powerful tool for promoting healthy and safe behaviors of all active transportation users. Targeted programming will enable people of all ages, abilities and spoken languages to feel safe and confident while walking and biking. Programming can be designed and implemented by many groups under the direction of the Village of Wheeling. Potential partners include park districts, school districts, the Wheeling/Prospect Heights Chamber of Commerce, the Wheeling Wheelmen, and other community groups.

4.1.1 PROVIDE EDUCATION TO THE ENTIRE COMMUNITY.

To reach the entire community, Wheeling should partner with various bicycle and pedestrian education instructors including league certified instructors of League of Illinois Bicyclists, local educators from REI, members of Wheeling Wheelmen or education staff from Active Transportation Alliance. These instructors could provide education and outreach on bicycle and pedestrian safety and sharing the road strategies. Examples of community education programs that are appropriate for all Wheeling community members include:



MEMBERS OF THE WHEELING WHEELMEN at the Bike Safety Rodeo.

BICYCLE AND PEDESTRIAN AMBASSADORS

Wheeling should create an ambassador program to promote walking and bicycling safety at village events, schools, day camps, after-school programs and other community gatherings. Bicycle and pedestrian ambassadors are outreach specialists who educate the public through direct outreach, presentations, and distribution of educational materials approved by the Village of Wheeling. Members of the Wheeling Bicycle and Pedestrian Task Force and the Wheeling Wheelmen could become ambassadors or help identify other interested community members.

BIKE MAINTENANCE AND TRAFFIC SKILLS CLASSES

The Village of Wheeling may work in partnership with the Wheeling Park District to design and offer bicycle and pedestrian training for adults, teens, and youth. Classes on bicycle and pedestrian safety and skill building could be offered to all age ranges. Bicycle mechanics classes and on-bike education classes (such as Traffic Safety Skills 101) should be made available for middle and high school students as well as adults.



PEOPLE OF ALL AGES can learn bike skills.



COMMUNITY ENGAGEMENT THROUGH PRINT AND ELECTONIC MEDIA

During the community engagement process, more than 100 residents expressed interest in staying involved in the bike and pedestrian initiatives of Wheeling. The Facebook page created for this plan (http://www. facebook.com/WheelingBikeWalkPlan) should be maintained to continue to educate and engage residents. The Facebook page can reach a large and diverse audience by posting regular updates about the active transportation plan. This site can also be used to promote local events and convey important safety information.

The Village of Wheeling should continue to seek coverage in local newspapers as well. Media coverage not only can help to educate residents on active transportation but also to build support and identify more residents who wish to get involved with Wheeling's biking and walking initiatives.

FACEBOOK "LIKES" are increasing.



4.1.2 EDUCATE RESIDENTS ON THE VALUE OF COMPLETE STREETS.

As the plan gets implemented, residents will benefit from understanding the value of Complete Streets. Complete Streets are designed to enable safe access for all users of the transportation network regardless of age, ability or travel mode. The cost of automobile travel is growing, public health discussions are becoming increasingly urgent, and more people associate safer streets with a higher quality of life. These issues are triggering a need for more affordable, healthier travel options, such as walking, biking and transit. Wheeling residents will learn that Complete Streets:

Provide people with a choice of travel modes

Help people save money on transportation

Improve property values

Help youth stay active by walking or biking to school

Allow older adults to age in place by preserving their mobility

Improve transportation networks by providing greater access to more destinations

MANY TYPES OF ROADWAY USERS enjoy complete streets.



4.1.3 PROVIDE YOUTH AND TEEN BICYCLE AND PEDESTRIAN EDUCATION.

Youth and teen walking and cycling safety education will provide a basis for a lifetime of active transportation habits, and will address parents' concerns about safety. Beginning in elementary school, students should receive age-appropriate education on safe walking and biking habits. The Village of Wheeling could seek partnership with School Districts 21, 23, and 214. The Wheeling Police Department and the proposed Bicycle Ambassadors can assist with various trainings.

PE CLASSES AND ASSEMBLIES

Provide a one class period on-bike safe cycling course to students as a prerequisite for the privilege of cycling to the elementary school and the junior high school. Include basic cycling skills, how to perform a bicycle safety check, helmet fit, and appropriate traffic skills such as biking on sidewalks, crossing roads and staying safe near driveways.

CURRICULAR EDUCATION MATERIALS

Encourage and equip teachers to integrate bicycle and pedestrian safety lessons and mobility education into existing subjects such as math, language arts, PE, and social studies. Free lesson books and teacher trainings are available for students in preschool through 12th grade from Active Transportation Alliance.

STUDENT-LED INITIATIVES

Once students reach middle school, the educational focus should focus not only on safety but on independence, the benefits of physical activity, how to safely navigate the bicycle and pedestrian network, and how to access public transportation. Contests and student-led initiatives can help inspire creative approaches to walking and cycling. Suggested projects include building a bike rack in a welding class or forming an after-school bike club.





MOBILITY EDUCATION FOR TEENS

Include a module on how to safely share the road with cyclists and pedestrians in both school-based driver education programs with School District 214 and with private driver education programs. WHEELING HIGH SCHOOL STUDENTS are bike commuters.

ELEMENTARY SCHOOL STUDENTS participate in a class on bicycle safety.

Lage Constant Series 42 Encourage the use of active transportation.

Encouragement programming is designed to increase the use of the active transportation network by helping residents understand how to safely navigate the network and urge residents to use active transportation.

4.2.1 PROVIDE THE COMMUNITY WITH INFORMATION ABOUT WALKING, BIKING AND TRANSIT ROUTES IN WHEELING.

Wheeling already has many great places to walk and bike, with more planned to be built in coming years. Yet many in the Wheeling community are unaware of the Village's routes. To raise awareness for existing routes and provide information on new routes, the Village may consider providing the following information to the community.

BICYCLE AND PEDESTRIAN ROUTE MAP

As recommended improvements are implemented, the design and production of an active transportation network map will create awareness for walking and biking routes throughout the whole community and encourage patronage of the key places identified in this plan. Wheeling should work with the Bike and Pedestrian Task Force and the Wheeling/ Prospect Heights Chamber of Commerce to produce and distribute a free active transportation network map that includes safe cycling and walking routes to destinations and safety tips. The map should show existing and planned routes. Large employers and local businesses could be approached for sponsorship of the map.
SCHOOL WALKING AND BIKING MAPS

School District 21 currently has pick-up and drop-off procedures and maps for each school. The Village should work with the school district to produce preferred walking and biking route maps for each individual school site to be integrated with pick-up and drop-off maps. The maps could also provide child-friendly safety tips and destinations.

TRANSIT INFORMATION

The Village of Wheeling can increase the use of public transit by distributing transit service information. Wheeling can partner with the transit providers to display timetables and install transit card vending machines in key places, such as bus shelters and community centers. The Village should consider working with Pace to provide digital reader boards with real-time bus arrival times at high-use bus stops. The Village should also promote the Regional Transportation Authority's existing transit mapping service (www.goroo.com).



BERWYN MIDDLE SCHOOL Walking Travel Map



A BIKE TO METRA GUIDE shows ho to use multiple modes of travel for longer trips.

A CROSSING GUARD greets students walking to school.



4.2.2 ENCOURAGE STUDENTS TO WALK AND BIKE TO SCHOOL.

Wheeling should partner with School Districts 21, 23 and 214 to encourage more students to walk or bike to school. Local initiatives can be led by parents and neighbors under the guidance of the school district.

INTERNATIONAL WALK TO SCHOOL DAY AND BIKE TO SCHOOL DAY

The community can promote walking and biking by hosting events such as International Walk to School Day, which is held on the first Wednesday of October, or Bike to School Day in May. Children in over 40 countries participate.

WALKING SCHOOL BUS

Launching a Walking School Bus program is one way to encourage children to walk to school. Some parents do not want their children walking alone to school. By recruiting parents and seniors to lead a group of children along a walking route, more parents and children will be apt to walk to school. This program could run one morning a week for six weeks after spring vacation. Development of preferred biking and walking maps will be helpful to build support for this initiative.

SAFE ROUTES TO SCHOOL

The National Center for Safe Routes to School (SRTS) assists communities in enabling and encouraging children in grades K–8 to walk and bike safely to school. The National Center has an informative website about the five E's of SRTS (education, encouragement, enforcement, engineering, and evaluation), including case studies, resources, data collection, and trainings. Parents and administration at school districts can use these resources to develop a school travel plan integrating the five E's, tailored to each school.

4.2.3 HOLD COMMUNITY EVENTS AND PROGRAMS TO GET PEOPLE OUT WALKING AND BIKING.

Community events and programs focused on walking and biking will create awareness of active transportation and encourage more residents to start walking and biking in Wheeling. These programs also provide opportunities for community members to come out and get to know their neighbors, shop locally, and explore their community.

WALKING AND BIKING GROUPS

Walking and biking groups meet on a regular basis, often weekly for rides or walks. People enjoy the active transportation network more while engaged in group physical activity. These groups can target specific populations such as seniors or families. This effort should be launched with various partners such as the Wheeling Wheelmen and the Wheeling Park District. These groups may encourage casual cycling and walking for exercise and transportation.

BIKE AND DINE EVENTS

Bike and dine events invite cyclists to enjoy a progressive dinner by bike at Wheeling's restaurants. Wheeling's Restaurant Row is a neighborhood jewel and a regional destination with over 20 restaurants on a four-mile stretch of Milwaukee Avenue. A bicycle tour of these restaurants for groups of 30 or less will garner media attention for local restaurants and raise the profile of cycling as a way to encourage local patronage. The route will also highlight new or potential community improvements to the bicycle network.





MEMBERS OF A SUBURBAN BIKING GROUP have reasons to smile. BIKE VALET enhances community events. .



BIKE PARKING AT COMMUNITY EVENTS AND FESTIVALS

The Village of Wheeling should advertise and offer bike parking to encourage bicycling to community events. Temporary racks or permanent racks should be installed depending on where the event is held. Bike valet, a service that checks bikes into a secure area and provides claim tags, should also be offered. Frontier Days and the Wheeling International Fair are two events that should incorporate bike parking strategies.

COMMUNITY BIKE RIDES

A PIT STOP during Bike to Work Week



Large-scale bike ride events are a great way to feature the active transportation network in Wheeling. Routes should be selected to feature local businesses and any new or planned network improvements. Large events can also serve as fundraisers for local projects and bring visitors from neighboring communities. Wheeling should host a joint ride with the Villages of Prospect Heights, Buffalo Grove and/or Arlington Heights.

BIKE TO WORK WEEK AND COMMUTER CHALLENGE

The Bike Commuter Challenge is a great program to celebrate Bike to Work Week each June. Companies, village departments, organizations, and non-profits can sign up teams of employees and log every trip made by bike during Bike to Work Week. This is a free encouragement program that motivates people to get out and try biking for at least one leg of their journey to work. Employers compete against similarsize organizations for recognition and prizes.

PROMOTION OF ACTIVE TRANSPORTATION BY LARGE EMPLOYERS

The Bike and Pedestrian Task Force should work with large employers to design customized walking and biking commuter routes or active loops for getting some exercise during the workday. The task force should also encourage businesses to participate in a transportation demand management program to reward employees for walking, biking or taking transit to work. The Bike Commuter Challenge should be the first step.



EMPLOYEES leave a workplace parking lot.

BIKE SHARE PROGRAM

Bike sharing programs—fleets of bicycles designed for low-cost, short-term use and made available at conveniently spaced rental stations—have the potential to transform villages and cities. Bike sharing is a cost-effective way to increase bicycling. When combined with infrastructure improvements, it is a way to encourage more residents and local employees to travel around Wheeling by bike. A Village-wide bike pool or rental stations should be placed at major employment centers, the Metra station, popular bus stops, trails and other selected areas.

43 Enforce safe travel behaviors.

Successful implementation of this plan will result in an increase in active transportation users, meaning more people will choose to walk and bike. This may create new law enforcement challenges. To promote the safety of all people using the active transportation network, Wheeling will continue to prioritize enforcement of traffic laws that deter reckless behavior by road users.

4.3.1 PROVIDE ACTIVE TRANSPORTATION TRAINING FOR POLICE.

Police in Illinois are required to participate in annual professional development opportunities. The Wheeling Police Department should ensure that all officers engaged in traffic safety enforcement receive introductory training on bicycle and pedestrian safety, followed by semi-annual refresher sessions. Information can be provided in person or through free videos and online training.

OFFICER TRAINING ON BICYCLE AND PEDESTRIAN BEHAVIORS

Officers should receive practical training focused on:

Illegal motorist behaviors that endanger bicyclists and pedestrians. The police department should strictly enforce existing laws concerning car speeding, car turning and car parking.

Dangerous types of bicycling behaviors

Common causes of bicycle and pedestrian crashes

Rules of the road for pedestrians and bicyclists

Reporting bicycle and pedestrian crashes

Investigating serious bicycle and pedestrian crash sites

Ways to prevent bicycle theft

Policing by bicycle

Transportation, health and environmental benefits of bicycling

UPDATES ON LAWS RELATING TO ACTIVE TRANSPORTATION

Special consideration should be given to new and existing laws that impact bicycle and pedestrian safety, particularly in school zones. These laws include:

Must stop for pedestrians in crosswalks

Handheld device ban in school zones

School zone fines

4.3.2 HOLD TARGETED ENFORCEMENT EFFORTS .

No police department can aggressively enforce all laws in all locations at all times. However, a targeted campaign and one-on-one conversations with a police officer can change behavior as well as educate community members.

USE CRASH DATA TO TARGET LOCATIONS FOR ENFORCEMENT.

The Wheeling Police Department can use existing crash data to identify the most dangerous locations and target enforcement at those sites. Intersections are often the most dangerous locations for pedestrians and cyclists. Many crashes in Wheeling occur within 200 feet of an intersection. Between 2006 and 2010, the following intersections had high bicycle and pedestrian crash rates:

Elmhurst/McHenry

Dundee/Milwaukee

Dundee/Schoenbeck

Dundee/Wolf

The Wheeling Police Department should target its enforcement efforts in these locations.

REVIEW ENFORCEMENT EFFORTS ON AN ANNUAL BASIS.

The Village of Wheeling should review these enforcement efforts on an annual basis to ensure appropriate allocation of police resources.



POLICE OFFICERS and community

members can work togehter the create a safe walking and biking environment. THE WHEELING POLICE DEPARTMENT SPONSORS a Bike Safety Rodeo for children.



4.3.2 CONTINUE TO SUPPORT ACTIVE TRANSPORTATION ENCOURAGEMENT AND EDUCATION BY THE POLICE DEPARTMENT.

The Wheeling Police Department already makes an effort to educate residents and encourage bicycling behaviors. The police should continue those efforts and consider building upon those efforts.

BIKE RODEO

The police department holds an annual Bike Safety Rodeo that offers a kid-friendly bike course, including stop lights and railroad crossings. This is a community education and encouragement event that draws families from throughout the community.

BIKE SAFETY TIPS

The police department website provides "10 Steps to Bicycle Safety." The police department should continue its encouragement work by expanding this site as well as beginning to utilize other marketing methods to distribute safety materials.

POLICE AND CITIZEN PATROL PARTNERSHIP

The police department works with the Citizens Patrol group, which is also interested in promoting safe bicycling and walking behaviors.

IMPLEMENTATION

Implementation Goal

Implement recommendations contained in this plan.

Implement the ideas contained in this plan

This plan advocates for a comprehensive set of network improvements, policies and programs staggered over several years. When implemented, they will help Wheeling reach its vision for active transportation. The effective implementation of this plan will require leadership by Village staff and elected pfficials, and a continued partnership with the schools and community organizations in Wheeling. It will also require cooperation with neighboring municipalities, Cook County, and the Illinois Department of Transportation.

The use of active transportation will only increase if this plan's recommendations are implemented in a timely manner. The following are ways to monitor implementation and measure progress towards achieving Wheeling's vision for active transportation.

5.1.1 EMPOWER THE WHEELING BIKE AND PEDESTRIAN TASK FORCE TO OVERSEE PLAN IMPLEMENTATION.

The Wheeling Bike and Pedestrian Task Force was established in 2010 to advance walking and biking in the Village. This group should continue working towards improving walking and bicycling in Wheeling.

Through the planning process, new connections with individuals, agencies and organizations have been established. To continue this partnership, Wheeling Bicycle and Pedestrian Task Force membership should be extended to people who have indicated their interest in active transportation through participation in creating this plan.

Responsibilities for the Wheeling Bicycle and Pedestrian Task Force should include the following:

Facilitate outreach to the community at time of adoption of Wheeling's Active Transportation Plan and as parts of the plan are implemented. Task Force members can use their existing community and social networks to spread the word about upcoming active transportation projects.

Monitor implementation of the plan.

Establish a budget for the Task Force so that they may continue using Village resources to implement the plan's recommendations.

Form partnerships with schools and community organizations to advance recommendations in this plan.



WHEELING BIKE and Pedestrian Task Force Meeting, March 2010. COUNTING USAGE RATES will show the importance and growth of walking and biking.



5.1.2 REVIEW AND REPORT ON PLAN IMPLEMENTATION.

Village of Wheeling staff should regularly review and report on progress and implementation of this plan to the Bike and Pedestrian Task Force. The Village should establish performance metrics to include in the report. Recommended metrics include the following:

Miles of bicycle network implemented

Miles of sidewalk, paths and trails built

"Complete" intersections developed

Bus stops and shelters installed

Bicycle- and pedestrian-friendly policies adopted

Educational events and encouragement opportunities offered

Enforcement events held

Other bicycle and pedestrian improvements

5.1.3 MONITOR ACTIVE TRANSPORTATION PARTICIPATION AND USAGE RATES.

In addition to improving the built environment for active transportation, advancing policy, and holding programs that promote active transportation, it is important to monitor usage and safety of active transportation in Wheeling. The following data-collection and analysis efforts should be made on a regular basis:

Review and analyze crash data annually to identify high-crash area locations.

Develop counting system for assessing use of bike racks.

Conduct bicycle and pedestrian counts at key roadway and trail locations throughout the Village, including adjacent lands in Cook County Forest Preserve.

5.1.4 STRATEGICALLY PURSUE FUNDING FOR IMPLEMENTATION OF THIS PLAN.

Although portions of this plan can be completed for little to no cost, this plan cannot be fully implemented without financial support. Many outside funding sources are available, and there are many opportunities to integrate active transportation into the Village's budget. A description of funding sources can be found in Appendix C. The following are suggestions for how to fund implementation of this plan:

Dedicate funding towards active transportation.

Integrate recommendations into the CIP.

Pursue outside funding opportunities.

Use resurfacing projects as opportunities to add on street bicycle facilities, where recommended.

THE POTAWATOMI PRAIRIE PROJECT is an example of a project where multiple agencies coordinated to create a complete, connected sidewalk network.



5.1.4 COORDINATE IMPLEMENTATION OF THIS PLAN.

Wheeling's transportation network is part of a much larger network. Many recommendations in this plan are on roads or lands controlled by other agencies. To fully implement Wheeling's active transportation network and to connect Wheeling's transportation network with the larger regional and statewide transportation system, Wheeling will need to coordinate projects with other agencies.

The following organizations have been identified as partners in implementing Wheeling's plan by coordinating projects with other organizations within Wheeling:

Wheeling and Prospect Heights Park Districts

School Districts 21, 23 and 214

Community groups such as the Wheeling Wheelmen

The following agencies have been identified as partners in implementing Wheeling's plan by coordinating projects with other agencies outside Wheeling:

Cook County Highway Department

Illinois Department of Transportation

Cook County Forest Preserve District

Neighboring municipalities: Arlington Heights, Northbrook, Buffalo Grove and Prospect Heights

Implementation Tables – Placeholder

Implementation Tables – Placeholder

Implementation Tables – Placeholder





The Wheeling Existing Conditions Report is a PDF attachment that summarizes the analysis and outreach conducted while developing the Active Transportation Plan for Wheeling.

Appendix B: Design Guidance

BIKEWAY AND PEDESTRIAN FACILITIES DESIGN

Guide for the Planning, Design, and Operation of Pedestrian Facilities American Association of State Highway and Transportation Officials (AASHTO), 2004 HTTP://WWW.TRANSPORTATION.ORG

Designing Sidewalks and Trails for Access U.S. DOT Federal Highway Administration HTTP://WWW.FHWA.DOT.GOV/ ENVIRONMENT/SIDEWALKS/INDEX.HTM

Guide for the Development of Bicycle Facilities, 4th Edition American Association of State Highway and Transportation Officials (AASHTO), 2012 HTTP://WWW.TRANSPORTATION.ORG

Urban Bikeway Design Guide National Association of City Transportation Officials HTTP://NACTO.ORG/CITIES-FOR-CYCLING/DESIGN-GUIDE/

Complete Streets Complete Networks: A Manual for the Design of Active Transportation

Active Transportation Alliance, 2012

WWW.ATPOLICY.ORG/DESIGN

BIKE PARKING

Bicycle Parking Design Guidelines Association of Pedestrian and Bicycling Professionals HTTP://WWW.APBP.ORG/?PAGE=PUBLICATIONS

Bike Parking for Your Business Active Transportation Alliance, 2003 HTTP://WWW.CHICAGOBIKES.ORG/ PDF/BIKE_PARKING_BUSINESS.PDF

OTHER RESOURCES

Active Transportation Alliance HTTP://WWW.ACTIVETRANS.ORG

National Complete Streets Coalition HTTP://WWW.COMPLETESTREETS.ORG

Manual on Uniform Traffic Control Devices Federal Highway Administration, 2009

HTTP://MUTCD.FHWA.DOT.GOV/

Bicycle and Pedestrian Accommodations Bureau of Design & Environment Manual Illinois Department of Transportation, 2011 Edition HTTP://WWW.DOT.STATE.IL.US/DESENV/ BDE%20MANUAL/BDE/PDF/CHAPTER%2017%20 BICYCLE%20AND%20PEDESTRIAN.PDF

Safety Benefits of Raised MediansandPedestrian Refuge Areas Federal Highway Administration HTTP://SAFETY.FHWA.DOT.GOV/PED_BIKE/ TOOLS_SOLVE/MEDIANS_BROCHURE/

Safety Benefits of Walkways, Sidewalks, and Paved Shoulders Federal Highway Administration HTTP://SAFETY.FHWA.DOT.GOV/PED_BIKE/ TOOLS_SOLVE/WALKWAYS_BROCHURE/

Appendix C: Funding Sources

There are numerous funding sources available to support the implementation of this plan. Most funding sources prefer funding projects contained in an active transportation plan.

TRANSPORTATION ALTERNATIVES

Transportation Alternatives is a federal grant program jointly administered by the state departments of transportation and metropolitan planning organizations in large metropolitan areas. The program funds a variety of bicycle and pedestrian improvement strategies including trail enhancements, pedestrian network improvements and bike facilities.

CONGESTION MITIGATION AND QIR QUALITY PROGRAM (CMAQ)

The CMAQ program funds transportation projects that improve air quality. These include bicycle ways, pedestrian network improvements and transit facilities. Locally, the program is administered by the Chicago Metropolitan Agency for Planning which emphasizes projects of regional significance. CMAQ funds generally cannot be used for preliminary planning, design and engineering.

SURFACE TRANSPORTATION PROGRAM

These federal funds are distributed locally by the various councils of mayors. STP supports improvements to local roads that benefit the federal highway network. Among other uses, STP funds can be used for traffic calming, pedestrian facilities and bike routes. Each council of mayors has its own procedures for evaluation project proposals. STP generally is one of the most flexible funding sources.

HIGHWAY SAFETY IMPROVEMENT PROGRAM (HSIP)

The Illinois Department of Transportation provides grants to improve facilities with documented crash problems. These projects can be focused on auto crash locations, or those involving pedestrians or cyclists. HSIP generally provides 90% of the project funds with a 10% local match. Funding is usually available for all phases of the project.

GRADE CROSSING PROTECTION FUND

This fund, administered by the Illinois Commerce Commission, assists local governments pay for improvements at highway-railroad crossings. Eligible uses include pedestrian gates, pedestrian signals and grade separations.

OTHER FEDERAL FUNDS

Federal agencies sometimes make grants available for energy efficiency, sustainability or obesity-prevention projects that could include active transportation initiatives. An up to date listing of all federal grants is available at www.grants.gov. The Legislative Research Unit of the Illinois General Assembly also publishes lists of state and federal grants.

COUNTY AND LOCAL FUNDING

Many federal and state funding sources require local match funds. Coalitions can be built between jurisdictions to prioritize the implementation of shared objectives. Many counties and local governments have access to motor fuel tax and other transportation revenue sources. They may also have economic development programs that can fund projects. School and park districts can also be sources of funds.

Appendix D: Policy Resources

This appendix provides resources to implement the policy recommendations in this plan.

ADOPT A COMPLETE STREETS POLICY

COMPLETE STREETS POLICY RESOURCES

The materials referenced below can assist with formulating policy, structuring implementation developing performance criteria.

Active Transportation Alliance. www.atpolicy.org Active Transportation Alliance has created a policy resource micro-site, WWW.ATPOLICY.ORG, with free access to Complete Streets Complete Networks: A Manual for the Design of Active Transportation, Complete Streets policy briefs and implementation materials.

McCann, Barbara, and Suzanne Rynne. Complete Streets: Best Policy and Implementation Practices. (Chicago: American Planning Association, 2010). This publication of the American Planning Association's Planning Advisory Service includes case studies, model policies, and development strategies revolving around Complete Streets.

National Complete Streets Coalition. WWW.COMPLETESTREETS.ORG NCSC has a very informative website. Among others, the following NCSC documents can be considered a good "jumping off" point for those unfamiliar with Complete Streets policy and design.

"Complete Streets Policy Elements." National Complete Streets Coalition. HTTP://WWW.COMPLETESTREETS.ORG/CHANGING-POLICY/POLICY-ELEMENTS/. Provides a framework by which Complete Streets policy can be designed and a basic outline of the elements of robust Complete Streets policy.

"Federal Policy Resources." National Complete Streets Coalition. HTTP:// WWW.COMPLETESTREETS.ORG/FEDERAL-POLICY/FEDERAL-POLICY-RESOURCES/. Knowing the trends in national policy concerning Complete Streets can help reinforce local policy initiatives. The NCSC website details past federal activity concerning Complete Streets, features legislative language, and has tips for getting the attention of lawmakers at the federal level.

Appendix E: Programming Resources

EDUCATION RESOURCES

There are many organizations who offer free and low-cost resources to educate people about the benefits of active transportation. These include:

ACTIVE TRANSPORTATION ALLIANCE

WWW.ACTIVETRANS.ORG/EDUCATION

Offers free curricula, professional development for educators and other resources. Active Transportation Alliance also offers education materials on Complete Streets at www.activetrans.org/completestreets.

NATIONAL SAFE ROUTES TO SCHOOL PARTNERSHIP

WWW.SAFEROUTESPARTNERSHIP.ORG

They offer an annotated bibliography of traffic safety curricula and other educational resources.

NATIONAL COMPLETE STREETS COALITION WWW.COMPLETESTREETS.ORG

This initiative of Smart Growth America provides resources to help educate citizens, municipal staff and elected officials on the benefits of Complete Streets.

ENCOURAGEMENT RESOURCES

Marketing and promotion efforts are essential to any successful bikeways plan. These organizations provide resources to help encourage more cycling:

LEAGUE OF AMERICAN BICYCLISTS

WWW.BIKELEAGUE.ORG

They sponsor the Bicycle Friendly Community program and offer resources for encouragement campaigns. They also certify instructors to provide bike mechanic and traffic safety skills courses.

ALLIANCE FOR BIKING AND WALKING

WWW.PEOPLEPOWEREDMOVEMENT.ORG They offer trainings to help develop a movement for cycling in your community.

ASSOCIATION OF PEDESTRIAN & BICYCLE OFFICIALS

WWW.APBP.ORG

They offer webinars and other resources for professionals who implement education and encouragement campaigns.

DRIVE LESS LIVE MORE

WWW.DRIVELESSLIVEMORE.COM

This campaign to encourage multi-modal transportation has numerous resources to encourage use of biking, walking and transit.

ENFORCEMENT RESOURCES

Active Transportation Alliance provides training for the law enforcement community including police, judges and prosecutors. The training focuses on best law enforcement practices to ensure traffic safety and an overview of current Illinois traffic safety laws. Active Transportation Alliance also provides free support services for victims of bicycle crashes.

