



Traffic on CTH KK in the Town of Buchanan.

Introduction

A diversified, well-balanced transportation system is a major factor in the growth of a community. The transportation system exists to move people, goods and services both through and within the community. Planning for the various modes of transportation is one of the most important aspects of planning for future of the Town.

Buchanan’s transportation system consists of Town subdivision streets, Town arterial roads, County trunks, and State highways. This chapter examines the transportation network, including a summary of existing transportation plans, studies, and assessments, as well as a series of recommendations to address future transportation needs and desires.

Wisconsin’s Comprehensive Planning Law includes 14 goals for local comprehensive planning. The Town of Buchanan believes that those goals listed below specifically relate to planning for transportation:

- Encouragement of neighborhood designs that support a range of transportation choices.
- Encouragement of coordination and cooperation among nearby units of government.
- Providing an integrated, efficient and economical transportation system that affords mobility, convenience and safety and that meets the needs of all citizens, including transit dependent and disabled citizens.

Transportation Vision

In 2025, Buchanan has a well-connected system of streets and highways that provide for the safe and efficient movement of people and goods. Residents take advantage of organized transit choices that connect Buchanan with Appleton, Kimberly, Combined Locks, Kaukauna, and areas beyond. Trails and walkways are an integral part of the recreation and transportation network providing connections between neighborhoods, neighboring communities, schools, parks, and the greater region. A trail network has been established in the Town linking Calumet and Outagamie County trails.

Inventory of Existing Transportation Facilities

This section profiles the different transportation choices available in Buchanan. Transportation facilities west of STH 55 provide a mix of choices for residents depending on their destination. Residents living east of STH 55 have limited transportation options and rely on their personal automobiles to meet the majority of their transportation needs. Rapidly rising fuel costs continue to increase the interest in commuting by other means other than personal vehicle.

PEDESTRIAN FACILITIES

Pedestrian movements and facilities are often overlooked in many plans, yet an essential part of most trips requires walking. Many of America’s worst health problems, such as heart disease, high blood pressure and obesity, are tied directly to a sedentary lifestyle. Many people find it difficult to get exercise because their living situation requires them to drive almost everywhere.

Modern planning approaches recommend:

- Walkable neighborhoods to promote social interaction, community safety and physical fitness.
- Ideally, walkable neighborhoods should be within a quarter mile, or a 5- to 10-minute walk, of a destination point (e.g., school, shopping, park, church, etc.).
- Trail development to provide connection between neighborhoods, communities, and regional destinations.

Generally, there are two classifications of walkers: people who walk for recreation/exercise and people who walk for transportation purposes. People who walk as their primary transportation choice are usually without alternatives (e.g., seniors and youth who cannot drive). Most people walk when it is convenient. Generally, walking is considered to be a convenient choice when destinations are within 10-15 minutes (1/2 mile or less). In the Town of Buchanan, walking is a convenient option for residents living west of STH 55 because of their close proximity to commercial services. Close proximity to services increases Buchanan's walkability, but the lack of walkways and trails discourage some residents. At the vision and value workshop held on July 11, 2005, residents indicated that an opportunity exists to develop outdoor biking, hiking and recreation trails, and to create easements for walkers, and bicyclists. The Town is encouraged to establish walkways on some streets to increase the walkability of the Town.

Buchanan provides amenities to make walking a safe option for residents living west of STH 55. Sidewalks are located in some areas of the community, but are not required by the Outagamie County Subdivision Ordinance. East of STH 55, there are no trails or walkways. Few roads have paved shoulders for walker/cyclist, making walking/cycling difficult in some areas. The establishment of a Town subdivision control ordinance could promote the establishment of trails in new developments.

CYCLING OPPORTUNITIES

Bicycle usage falls into two categories - utility and recreational. Utility biking (or biking as a form of transportation) is most common for children. Safe biking opportunities in Buchanan are limited at this time. Accordingly, residents indicated support for new bike/pedestrian lanes and trails.

- **Trails and Bicycle Ways**

Two trails exist in Buchanan: the CE Trail and a trail west of State Park Road. The CE Trail is a 6.7-mile trail that starts in Appleton and ends at Loderbauer Road. Part of the Outagamie County Parks System, this 10-foot wide blacktop trail is one of the longest in the Fox Valley. The trail offers connections to Kimberly and Kaukauna High Schools, the YMCA, restaurants, shopping and several other trails. The trail allows for walking, biking, dog walking, skating, running, snowshoeing and cross county skiing.

The other trail located in Buchanan runs west of State Park Road and connects with CTH KK and Block Road.



The CE Trail connects with the Konkapot Creek Trail, HH Trail, and N Trail. Proposed trails are shown on the *Future Transportation System Plan Map*.

There is the potential to establish additional trails – particularly along collector and arterial roadways as well as in newer areas of Buchanan that have greenspace dedicated for stormwater management or conservation areas (e.g. common open space). These areas are most likely located east of STH 55 in the less developed areas of the Town. Through the subdivision review process, Buchanan can work with developers to locate open space areas adjacent to one another. Over the long-term the potential to create a network of greenways through Buchanan can be accomplished. While the primary purpose of these corridors is to control storm water, preserve water and protect open space, secondary opportunities include their use as wildlife corridors and as potential greenway trails.

Local trails, including paved shoulders, are needed to provide safe areas for pedestrians, cyclists and outdoor enthusiasts. Ideally, trails will eventually traverse the Town to link together residential areas, recreation areas, schools and future Town parks. Potential trail routes are illustrated on the *Future Transportation System Plan Map* as well as the *Future Land Use Map* of this Plan. An in-depth study, considering such pertinent factors as topographic constraints, storm water conveyance, and minimum right-of-way requirements should be conducted to determine the precise location and type of trail facility to be provided.

What's the Difference?

Trail – Off-street paths that accommodate bicycles and pedestrians.

Bicycle Way – Also referred to as Bicycle Route; Facilities for bicycle travel associated with street rights-of-way, including signed bicycle routes, striped and signed bicycle lanes and separate bicycle paths within a road right-of-way. Bicycle routes generally accommodate bicycle travel only. Pedestrian use of these areas is discouraged.

Multi-Use Trail – designed for use by cyclists and pedestrians. The CE Trail is a good example.

SNOWMOBILE TRAILS¹

The Countryside Sno-Riders maintain seasonal snowmobile trails through the Town of Buchanan. The trails are established through agreements between the club and private landowners that allow the group to groom and use their property. Use of these trails is dependent upon snowfall amounts. The Town has approximately 5-miles of snowmobile trails.

RAILROAD CORRIDORS

There are no railroad lines in the Town of Buchanan. There are no plans to establish new rail corridors in the Town. The nearest rail lines are located in Kimberly, Combined Locks, Kaukauna and Appleton.

MASS TRANSIT



Valley Transit provides bus service in the Fox Valley area. The Valley Transit fleet consist of 25 buses, operating on 16 routes. Weekday route service operates from 5:45 a.m. to 10:30 p.m. Saturday service begins at 7:45 a.m. and ends at 10:30 p.m. There is no service on Sunday. The western part of Buchanan has route coverage by Valley Transit on Route #11 that was initiated in October of 2005. The “East College/Buchanan Route” serves portions of CTH KK, Eisenhower, Stoneybrook, and College Avenue. Significant areas of the Town are also within the “call-a-ride zone.” This zone allows passengers to call a taxi that provides direct public transportation to and from destinations. Along with Valley Transit, there are many taxicab companies providing service in and around Buchanan.

CARPOOLING

The potential exists for increased use of park and ride lots for carpooling. Even though these lots are not located in the Town, residents do have convenient access to these locations. There is a park and ride lot at the intersection of USH 41 and CTH N, at USH 41 and CTH E (Ballard Road) and on CTH N north of STH 10.

¹ Phone Interview with Brian Feest: 8-11-2005

STREETS AND HIGHWAYS

The roadways that pass through Buchanan are, and will continue to be, the primary means of transportation in and through the community. Accordingly, during the SWOT exercise, residents indicated they value their close proximity to area highways. But, residents felt roads and transportation (e.g. aging roads, insufficient biking and hiking trails, lack of conventional public transportation) was a weakness. Other weaknesses identified by residents were traffic control, routing and enforcement, not enough safe ways for children to get around the different areas in the community, and congestion at SW corner of township

Streets and highways are classified according to their primary function, either to move vehicles or to serve adjacent land (see box for definitions). A classification of the streets and highways in the Town of Buchanan is provided on the *Transportation Network Map*.

Available traffic volume data is also provided on the *Transportation Network Map*.

- **Principal Arterials:** STH 441 is the closest principal arterial to Buchanan.
- **Minor Arterials:** STH 55 is a minor arterial in Buchanan.
- **Major Collectors:** CTH KK, CTH CE and CTH Z are considered major collectors.
- **Minor Collectors:** There are no minor collectors in the Town.
- **Local Roads:** The remaining roads in the Town are local, low use roads. They provide access to residential and business uses in the Town.

The extension of the road network is critical to development. For this reason, Buchanan should consider adopting an *Official Map* to preserve corridors for future capacity expansion, access controls, and to reduce the impacts of future development with possible turn lanes, bypass lanes, and intersection improvements. Any *Official Map* adopted by the Town would need to be updated to keep pace with development.

Historically, traffic/ transportation problems were assessed by the Town on an as needed basis when brought to the Town's attention by residents, observed by staff, the Outagamie County Highway Department or WisDOT. Each spring, the Town holds an annual road inspection meeting. At this meeting, Town officials and County Highway Department personnel drive the Town's roads to determine roadway condition. Road repairs are dependent on the budget for that particular year. The Town will consider a long-range roadway maintenance and budget forecasting program to be updated annually.

The County's highway department handles road maintenance problems. Reconstruction and resurfacing is contracted out on an annual basis.

WATER TRANSPORTATION

The Fox River creates the northeast boundary for the Town. This river is not utilized for transportation purposes, but is used for recreational activities. The nearest water transportation facility is the port of Green Bay.

TRUCK TRANSPORTATION

WisDOT has officially designates state highways as truck routes, including STH 55 and STH 441. This designation is based on the design of the roadway to withstand truck weight and traffic.

Road Classifications

Streets and highways are classified according to their primary function, either to move vehicles or to serve adjacent land.

- **Principal Arterials** – serve interstate and interregional trips.
- **Minor Arterials** –accommodate inter-regional and inter-area traffic movements, often in conjunction with principal arterials.
- **Major Collectors** – provide service to moderate sized communities and other intra-area traffic generators. Many county trunk highways fall into this classification.
- **Minor Collectors** – these roads collect traffic from local roads and provide links to all remaining portions of smaller communities and other higher function roads.
- **Local Roads** – provide direct access to residential, commercial and industrial development.

What is an Official Map?

An official map is one of the oldest plan implementation devices at the disposal of a local community. It is used to manage the problem of reserving land for future public use. Section 62.23(6) of the Wisconsin Statutes provides that the governing body of any local municipality may establish an official map for the precise identification of right-of-way lines and site boundaries of streets, highways, waterways, and parkways, and the location and extent of railway right-of-ways public transit facilities, and parks and playgrounds. Such a map has the force of law and is deemed to be final and conclusive with respect to the location and width of both existing and proposed streets, highways, waterways, and parkways, the location and extent of railway right-of-ways public transit facilities, and parks and playgrounds.

Restricting Trucks

Class B Highway include County trunk highways and Town streets, or portions thereof, on which no person, without a permit, shall operate any vehicle or combination of vehicle and imposing wheel, axle, group of axels, or gross weight exceeding 60 percent of the listed capacity weight of the roadway. For additional information, refer to Wisconsin Statutes, Chapter 348.

Truck traffic is a common concern of residents. Residents are concerned about truck speeds, noise and volume. Ideally, different types of motorized vehicle traffic, such as trucks and automobiles, could be separated. However, it is not possible to totally separate trucks from automobile traffic, because trucks serve local businesses. There are steps Buchanan can take to focus the truck traffic to streets that are suitable for heavy traffic. The goals and objectives in this chapter discuss this concept in more detail.

The Wisconsin Statutes define standards for the length, width and weight of trucks allowed on certain roadways to prevent road degradation and untimely maintenance. Buchanan has not adopted an ordinance designating roadways as “Class B Highways” (see definition in box). Outagamie County designates CTH GG, Loderbauer Road and CTH Z as Class B Highways.

AIRPORTS



There are no airports in the Town of Buchanan. The nearest airport to the Town of Buchanan is the Outagamie County Regional Airport. Outagamie County Regional Airport is located in the Town of Greenville. The airport includes two runways and offers fuel, charters, maintenance services, avionics services, aircraft sales/leasing/brokerage, hangar space rental, catering, pilot supply sales, courtesy transportation, parking and a flight school/flight training facility.

According to the WisDOT State Airport System Plan for 2020, Outagamie County Regional Airport will continue to provide air carrier and air cargo service through 2020 and beyond. The airport will remain an important component of the state’s air passenger system.

Summary of Existing Transportation Plans, Studies and Projects²

This summary is provided to understand how existing plans relate to the Town of Buchanan.

FEDERAL TRANSPORTATION PLANNING

A number of federal and state policies guide the planning, development, maintenance, and operation of the transportation network. As tends to be the case with federal and state policies, their implementation is accomplished with the development of regulations, often with tight ties to funding. Federal regulations most closely related to this element include:

- Title VI, Civil Rights Act, and specifically the Americans with Disabilities Act of 1990 (ADA) and the Executive Order concerning Environmental Justice;
- Clean Air Act;
- Planning requirements under the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA), and the subsequent Transportation Equity Act of 1998 (TEA-21); and
- Federal historic preservation regulations also affect transportation planning, project development and construction.

The most recent federal transportation planning efforts are included within the Transportation Equity Act for the 21st Century (TEA-21). This act largely reaffirms the tenets of the ISTEA. This legislation sets out all federal transportation funding programs and the planning requirements of those programs. For instance, TEA-21 spells out the existence of the Transportation Enhancement Program, the minimum level at which it will be funded, and the general principles and intentions of the program. Also, requirements for transportation/land use plans for urbanized areas are also included in ISTEA and TEA-21. Administrative rules are used to flush out these and other federal program requirements.

WISDOT STATE HIGHWAY PLAN 2020

² This summary presents the major plans and projects. Additional studies were reviewed in preparation of this plan, including the Wisconsin 2020 Bicycle Plan and the WDNR Trails Plan.

Wisconsin's State Trunk Highway system, consisting of approximately 11,800 miles of roads, is aging and deteriorating at the same time traffic is increasing. In response to this critical issue, WisDOT, in partnership with its stakeholders, developed the *WisDOT State Highway Plan 2020*, a strategic plan which considers the highway system's current condition, analyzes future uses, assesses financial constraints and outlines strategies to address Wisconsin's preservation, traffic movement, and safety needs. The plan is updated every six years to reflect changing transportation technologies, travel demand and economic conditions in Wisconsin.

To implement the *WisDOT State Highway Plan 2020*, a six-year capital improvement plan is prepared by WisDOT. This plan is updated annually to identify project priorities. *WisDOT's 2002 – 2007 Highway Improvement Program* does not include any scheduled projects in the Town of Buchanan.

WISCONSIN STATE BICYCLE PLAN 2020

The *Wisconsin Bicycle Transportation Plan 2020* was drafted by WisDOT in December 1998. The vision statement in the plan is: “*To establish bicycling as a viable, convenient and safe transportation choice throughout Wisconsin.*” The document included nine elements: (1) Plan Vision, (2) Goals and Objectives, (3) Current Bicycling Conditions, (4) Benefits and Impacts of Bicycling, (5) Public Involvement, (6) Intercity, (7) Urban/Suburban, (8) Bicycle Safety, and, (9) Implementation. In the implementation section, WisDOT identified the roles and responsibilities of various levels of state and local government. Local governments are encouraged to:

- Develop, revise, and update long-term bicycle plans and maps;
- Consider the needs of bicyclists in all street projects and build bicycle facilities accordingly;
- Promote and offer bicycle safety programs;
- Consider providing locker room facilities for employees;
- Encourage business involvement to increase bicycle commuting and other functional trips; and,
- Help promote bike to work/school day.

Buchanan’s ability to support trail development is closely tied to its support for planned trails identified within the *WDNR State Recreational Trail Network Plan*, coordination with Outagamie County with respect to planned County Trunk Highway upgrades and implementation of the *Outagamie County Greenway Plan*. Coordination with local developers and citizen groups who may consider trails as part of subdivision developments or in other areas are also important. Buchanan could also work with neighboring communities (in concert with the developers) to establish an interconnected network of trails and open space corridors.

EAST CENTRAL WISCONSIN REGIONAL PLANNING COMMISSION

The East Central Wisconsin Regional Planning Commission (ECWRPC) has adopted transportation goals and supporting objectives, which it uses to evaluate transportation plans developed in the region. As part of the comprehensive planning process, these goals were reviewed to ensure consistency with the *Town of Buchanan Comprehensive Plan*. Many of the ECWRPC goals relate to services and facilities that are not available in the Town of Buchanan (i.e. airports, etc.).

The overall goal for the regional transportation program is “*to provide a safe, efficient and environmentally sound transportation system that provides personal mobility for all segments of the population and supports the economy of the region.*” This statement is consistent with the vision and goals set forth by Buchanan. To support this overall goal, the ECWRPC has outlined a series of objectives pertaining to: integrated planning, maximum street effectiveness, an efficient street and highway system, safety, minimum environmental disruption, compatibility with land use patterns, conservation of energy, and multi-modal interaction. Each of these objectives is addressed to the fullest extent practical in this plan.

As the designated Metropolitan Planning Organization (MPO) for the Fox Cities Urbanized Area, ECWRPC, in cooperation with the cities of Appleton, Neenah, Menasha, Kaukauna; the villages of Kimberly and Combined Locks; the towns of Buchanan, Grand Chute, Greenville, Harrison, Kaukauna, Neenah, Menasha, Vandenbroek; Calumet, Outagamie, and Winnebago Counties; completed the *Long Range Transportation/Land Use Plan for the Fox Cities (Appleton) Urbanized Area* in 2005.

Under federal law each metropolitan area in the nation with a population greater than 50,000 must have a long range plan that considers at least a twenty year time frame to be eligible for federal transportation funds. The plan has a time horizon to the year 2035 so that the required twenty-year planning horizon can be maintained while the prescribed update is being completed every five years.

The Fox Cities Metropolitan Planning Organization staff works with all jurisdictions, operating agencies, and the public to carry out cooperative, continuing, and comprehensive transportation and land use planning. ECWRPC certified that the planning requirements have been met, which includes a *unified Transportation Work Program, A Public Involvement Plan, and Transportation Improvement Program (TIP), and a Long Range Transportation Land Use Plan.*

All jurisdictions that comprise the urbanized area worked together to compile and prepare a collective future land use plan. The planning process includes participation from the MPO Technical Advisory Committee (TAC), The Long Range Plan Committee, and the standing Transportation Committee of the Policy Board for the MPO. The MPO works closely with Federal Highway Administration and WisDOT staff, public and private transportation providers, and other stakeholders in the MPO area. The public was invited to participate in all facets of the process and were solicited to review and comment on key points including the analysis and draft recommendations. The TAC, Long Range Plan Committee, and Policy Board reviewed and discussed the alternative analysis used to identify future transportation needs. The plan represents a collective, long-term vision for the Fox Cities area based on local land use plans and policies.

The Fox Cities MPO Policy Board adopted the Transportation Improvement Program and Long Range Transportation Land Use Plan at the October 2005 meeting. More information on MPOs is available at the Federal Highway Administration's website, <http://www.planning.dot.gov/metro.asp>.

OUTAGAMIE COUNTY CAPITAL IMPROVEMENT PLAN, 2005 - 2009

Like WisDOT, Outagamie County plans for transportation improvements to County Roads using a capital improvements plan. At this time there are no projects identified after 2006 within the *Outagamie County Capital Improvement Plan* that will impact the Town of Buchanan. The plan is updated annually and as a result, projects may be added (e.g. CTH N intersection improvements, CE improvements, etc.).

COUNTY CE CORRIDOR STUDY – WIS 441 TO WIS 55

In August 2005 a County CE corridor study was completed. The study was commissioned by the Outagamie County Highway Department due to concerns about increasing traffic congestion. It examined traffic counts, turning movements and intersection improvement needs along the County CE corridor between WIS 441 and WIS 55. Recommended improvements are described below.

- **Short-Term:** Upgrade Debruin intersection (e.g. traffic signal) and update timing of lights at WIS 55 intersection with County CE.
- **Mid-Term:** Study local connectivity (e.g. driveway access) along Buchanan Road and upgrade intersection of Buchanan Road with County CE
- **Long-Term:** Widen and reconstruct Eisenhower Road and Railroad Street intersections with County CE.

These recommended improvements are illustrated on the *Future Transportation System Plan Map*. Specific timetables for these improvements have not yet been established, but will likely be incorporated into the *Outagamie County Capital Improvement Plan*.

TOWN OF HARRISON

The Town of Harrison adopted a comprehensive plan in 2004. The Town of Harrison believes a transportation network should be a safe, efficient, and environmentally sound system that provides personal mobility for all segments of the population. Some objectives for transportation in Harrison are coordinating future streets with adjacent governments, developing a transportation system that's compatible with existing and future land use patterns, and coordinating future street improvements with proposed trails. *The Town of Harrison Comprehensive Plan* is consistent with this element.

CITY OF KAUKAUNA

In 2000, the City of Kaukauna adopted a comprehensive plan. Kaukauna is looking for increased access to CTH KK and De Bruin Road. The City of Kaukauna envisions a bridge over Konkapot Creek between STH 55 and Kaukauna High School. Kaukauna wants to implement a future street plan and consider rail improvements for the future. Intergovernmental cooperation will be required for these visions to be realized as they relate to the Town of Buchanan.

VILLAGE OF COMBINED LOCKS

The Village of Combined Locks has had a comprehensive plan in place since 2001. The plan seeks to improve pedestrian movements across streets and facilitate the outward flow of traffic onto perimeter streets. It also recommends Combined Locks monitor traffic and accidents at CTH CE and De Bruin Road to determine if and when traffic signals may be needed. Effective implementation of the Combined Locks plan will require coordination with the Town of Buchanan.

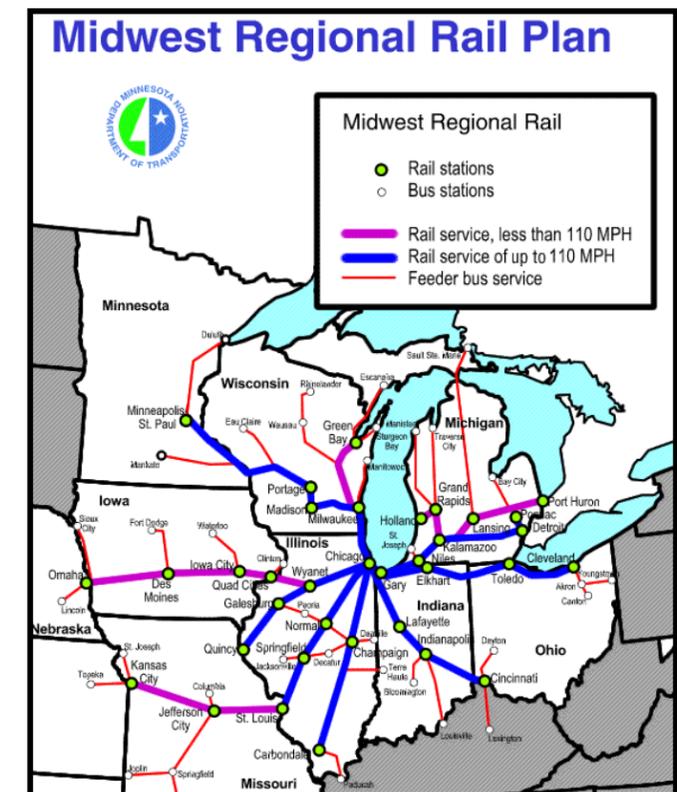
MIDWEST REGIONAL RAIL INITIATIVE PLAN

Since 1996, the Midwest Regional Rail Initiative (MWRRI) advanced from a series of service concepts, including increased operating speeds, train frequencies, system connectivity and high service reliability, into a well-defined vision to create a 21st century regional passenger rail system. This vision has been transformed into a transportation plan known as the Midwest Regional Rail Systems (MWRRS). The primary purpose of the MWRRS is to meet future regional travel needs through significant improvements to the level and quality of regional passenger rail service. The major MWRRS elements will improve Midwest travel. These elements include:

- Use of 3,000 miles of existing rail rights-of-way to connect rural, small urban and major metropolitan areas throughout Minnesota, Iowa, Missouri, Illinois, Indiana, Ohio, Michigan and Wisconsin.
- Operation of “hub-and-spoke” passenger rail system through Chicago to locations throughout the Midwest.
- Introduction of modern train equipment operating at speeds up to 110 mph.
- Provision of multi-modal connections to improve system access.
- Improvements in reliability and on-time performance.

The cost to provide the improvements needed to facilitate a Chicago-Milwaukee-Minneapolis/Fond du Lac Route would be \$978 million, including rolling stock (e.g. passenger cars) and infrastructure improvements (e.g. track improvements). If the plan is carried out, residents of Buchanan will be able to access a train in Oshkosh to connect with Milwaukee to a high-speed rail line. The current schedule provided in the MWRRS plan calls for the entire project to be completely on-line by 2012. The first phase of the MWRRS plan in Wisconsin calls for 110 mph rail service between Madison and Milwaukee, and continuing to Chicago.

The Midwest Regional Rail Initiative Plan shows a rail stop in the City of Appleton. Residents of Buchanan would have convenient access to this stop allowing them to travel to places such as Milwaukee, Madison and Chicago without having to drive. The Town of Buchanan will support rail transportation as an important form of transportation for Town residents.



TOWN OF BUCHANAN PAVEMENT SURFACE EVALUATION AND RATING (PASER)

In 2005, Buchanan completed a Pavement Surface Evaluation and Rating (PASER) for all Buchanan roads. PASER is a visual inspection system to develop a condition rating for community roads. PASER is an important tool for planning because it gives a picture of road conditions on all roads and can identify candidates for maintenance and rehabilitation. Surface defects, cracking and potholes are all examined during a typical PASER evaluation. Paved roads are rated 1 – 10 based on their condition. They include:

- 9 and 10 – No maintenance required
- 7 and 8 – Routine maintenance, crack sealing, and minor patching
- 5 and 6 – Preservative treatments (seal coating)
- 3 and 4 – Structural improvement and leveling (overlay or recycling)
- 1 and 2 – Reconstruction

Table 20.0 provides a summary of the PASER ratings in the Town. According to the PASER manual, it is recommended that communities strive to attain a rating of at least 7 for all roads. The Town Board should continue to use the PASER results during its annual update of any future Capital Improvement Plan and Budget (see Transportation Budgeting section under Transportation Issues and Concerns) to effectively plan for road improvements in relation to other Town spending needs.

TOWN OF BUCHANAN OFFICIAL TOWN MAP

The Town of Buchanan has an official Town map showing current and planned future roads. The future roads shown on this map may not necessarily be constructed, but are still mapped with the Town having the option to develop them. All officially mapped roads are shown on the *Future Transportation Systems Plan Map*.

COMPARISON TO STATE AND REGIONAL PLANS

There is a division in jurisdiction related to transportation facilities and services (e.g., County Roads, State Highways, and Town Roads). The transportation network in the Town of Buchanan requires coordination between these jurisdictions to work efficiently. In developing this plan, Buchanan invested a significant amount of time researching and coordinating with regional and state transportation plans, policies and programs. As a result, Buchanan’s transportation goals, policies, objectives and programs seek to complement state and regional transportation goals, objectives, policies and programs by providing local transportation facilities and services that connect to county/regional and state facilities.

Transportation Issues, Concerns and Opportunities

PEDESTRIAN AND BIKE CONNECTIONS³

The highways that traverse the community have traffic volumes that present a challenge to pedestrians and cyclists. As Buchanan continues to grow, considerations for safe pedestrian and bike access to local amenities must be considered. For this reason, the *Future Transportation System Plan Map* includes proposed trails, bicycle ways, and sidewalk route through the community, particularly to provide connections to local destinations (e.g. CE Trail, other trails, Appleton, Kimberly, Combined Locks, Kaukauna and the Town of Harrison). The Town of Buchanan trails will allow residents and visitors to connect with the CE Trail, High Cliff State Park and the proposed Manitowoc to Freemont trail (one piece of this proposed trail has already been approved – the “Friendship Trail” running from Brillion to Forest Junction). An opportunity also exists to provide additional connections through future subdivisions. As discussed in the Housing Chapter, conservation subdivisions allow for trail development. The Town encourages trail development located within new subdivisions.



In order to promote trail connections, the Town needs to consider increasing the number of walkways, paths and trails in the community. Areas west of STH 55 offer ideal locations for this type of development, and can be added on a neighborhood-by-neighborhood basis. In existing subdivisions, the cost of installation can be borne by property owners through special tax assessments to recover installation costs. The Town should also consider adding walkways or trails to existing Town roads and coordinate with the Outagamie County Highway Department to consider walkway installation along County trunk highways. In areas east of STH 55, trail development is strongly encouraged in lieu of sidewalks to retain the rural character of this area. Trail development that provides access to the Fox River is strongly encouraged by the Town, as shown on the *Future Transportation System Plan Map*. Trails will provide important linkages within the community. Development of trails,

³ Source: <http://www.bicyclinginfo.org/>

TABLE 20.0: ROADWAY BY PASER RATINGS		
2005 PASER RATING	Number of Miles	% of All Roads
1	0.16	0.34%
2	0.33	0.68%
3	2.00	4.17%
4	12.79	26.71%
5	8.63	18.01%
6	6.58	13.74%
7	5.42	11.32%
8	7.59	15.85%
9	0.66	1.38%
10	3.02	6.31%
Unrated	0.71	1.48%
Total	47.89	100%

SOURCE: 2005 PASER Rating System Report, Town of Buchanan

walkways, paths, or similar amenities is only part of the picture. While walkways, trails and bicycle path installation is important, maintenance is just as important. A comprehensive process, potentially using students, seniors and other volunteers is needed to assess walkway, trail, and bicycle path locations and maintenance priorities.

One of the most overlooked aspects of increased bicycle trails in a community is bicycle parking at commercial and community facilities. Many people are discouraged from biking fearing their bike will be stolen if they park it. The Town needs to consider good locations for bicycle parking. Most businesses will encourage bicycle racks in front of their stores. Racks should be located so they are:

- Clearly visible in high pedestrian traffic areas to discourage thieves
- Well distributed versus clustering all racks in one central area
- Accessible
- Not a nuisance to pedestrians

The design of bicycle racks is also an important consideration. Racks should:

- Support the frame of the bicycle
- Allow the frame and one wheel to be locked on to the rack when both wheels are left on the bike
- Allow for the use of either a cable or U-shaped lock
- Be securely anchored
- Be usable by bikes with no kickstand
- Be usable by bikes with water bottle cages
- Be usable by a wide variety of sizes and types of bicycles.

It is also important to mark the location of bike racks with signs so bicyclists know where they are located.

On the *Future Transportation System Plan Map*, planned trails and bicycle routes are marked.

- Future bicycle routes on roads are designated as **bike lanes** and are for bicycle traffic only. Bike lanes are encouraged on both sides of the roads indicated on the map with lanes being a minimum of four feet wide. These routes need to be marked with signs, and proper road striping to show motorists and bikers where the designated lanes are located.
- A second recommended form of proposed pedestrian and bicycle connection is called **multi-purpose trails**. These trails should be 10-foot wide, blacktop and located adjacent to the roads noted. Multi-purpose trails will be similar in appearance to the CE trail and will provide walking, biking and other transportation opportunities for residents.
- The third type of pedestrian and bicycle connection is **sidewalk and bike lane routes**. Roads indicated on the map with this designation are encouraged to have a sidewalk on one side of the street and two bike lanes on the road. Each bike lane must be a minimum of four feet wide and properly located to allow for on-street parking.



The separation of bike routes and walkways provides the safest mode of transportation for bikers and walkers⁴. In the past, the Town has considered a shared on-street walking/biking path. When bikers share small road spaces with cars and pedestrians, the risk of possible conflict and injury increases. If the Town desires shared on-street pedestrian/bike paths, paths need to be wide enough to safely accommodate both bikers and pedestrians. This could be in the form of widened shoulders on roadways. Shoulders must have a minimum paved area of three feet and have gravel for walkers.



The Town will consult with the Wisconsin Department of Transportation and Outagamie County prior to the construction of new trails, paths or other pedestrian transportation systems

⁴ Source: <http://www.dot.wisconsin.gov/projects/state/docs/bike-facility.pdf>



WALKABLE COMMUNITY⁵

The Town of Buchanan is fortunate to have the basic elements of a walkable community (see box). To enhance the Town's "walkability" it can provide sidewalks and trail connections to schools, parks and shopping areas. Accordingly, the *Transportation System Plan* indicates areas for sidewalks, trails and bicycle ways. The following actions are recommended:

1. **Maintaining the Town's network of neighborhood parks, open spaces and schools.** This effort must include a commitment to continuing to provide park and open spaces in new neighborhoods and access to existing facilities via trails and walkways.
2. **Providing many linkages to neighborhoods (including walkways, trails, and roadways).** People need to have choices for traveling. Offering well-maintained roads, walkways, and trails are important to provide access for residents (refer to the *Transportation System Plan* for recommended routes). Where recommended, sidewalks would be provided on both sides of neighborhood streets. Where sidewalks are not practical, trails and bike routes are encouraged.
3. **Designing at a scale to allow residents to walk to local destinations** (e.g. schools, shopping, parks, etc.). Walkable communities are designed so most residents have the choice of walking (¼ to ½ mile) to arrive at a community destination. In Buchanan, the Town has experienced growth in the southwest corner of the Township. This growth is concentrated between STH 441, CTH CE, CTH KK and STH 55. High traffic volumes, along with few sidewalks, can make walking in this part of Buchanan difficult. Accordingly, many residents prefer to drive to destinations. To address this issue, sidewalks and trails must be provided in the areas west of STH 55.
4. **Enforce low speed streets (in subdivisions and neighborhoods 20-25 mph common).** To promote a walkable community, motorists must respect speed limits in all areas, but particularly near schools, parks and other public areas, yielding to pedestrians.
5. **Providing inspiring and well-maintained public streets.** Streets in a walkable community are attractive, colorful, with sidewalks/walkways, planter strips, and handle a diversity of needs. Homes and buildings are brought forward, relating to the street with a minimal setback area. These amenities and design elements provide an attractive, inviting place for walking.
6. **Land use and transportation are integrated.** In walkable communities, residents understand and support compact development, infill, integral placement of mixed-use buildings, and mixed housing neighborhoods. People understand that small, local stores help create community as well as convenience. Residents feel they have choice of travel modes to most destinations. The Town of Buchanan will support infill development to help create walkable community.
7. **Providing convenient, safe and easy street crossings.** Successful urban areas and shopping districts have frequent, convenient, well-designed street crossings. Pedestrians using these areas rarely have to walk more than 150 feet to reach crossings. People crossing at intersections, whether signalized or not, rarely wait more than 30 seconds to start to cross. The primary challenge in Buchanan is not traffic speed, but rather the volume of traffic along CTH KK, CTH CE, and CTH AP. These high traffic volumes can be intimidating to pedestrians. Improved crossings such as bump outs to reduce pedestrian crossing width, mid-street crossings and surface treatments (e.g. colored/stamped concrete to clearly mark crossing locations, lighting, and paint striping) can help address this issue.

What is a Walkable Community?

Walkable communities are desirable places to live, work, learn, worship and play, and therefore a key component of smart growth. Their desirability comes from two factors:

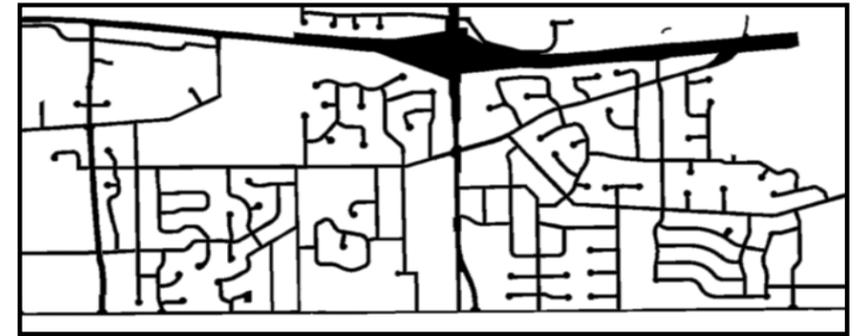
- 1) Walkable communities locate within an easy and safe walk goods (such as housing, offices, and retail) and services (such as transportation, schools, libraries) that a community resident or employee needs on a regular basis.
- 2) By definition, walkable communities make pedestrian activity possible, thus expanding transportation options, and creating a streetscape that better serves a range of users -- pedestrians, bicyclists, transit riders, and automobiles.

SOURCE: Smart Growth Network, 2004. Available on-line at www.smartgrowth.org

⁵ Based on the information available from Walkable Communities, Inc., as prepared by Dan Burden, a nationally recognized authority on bicycle and pedestrian facilities and programs.

MASS TRANSIT-CHOICES & ACCESS

The Town of Buchanan is currently served by Valley Transit bus service for mass transit. Some residents feel mass transit is missing on a regular basis. Valley Transit currently has multiple stops located within the Town or in close proximity. The Town will continue to work with Valley Transit, Outagamie County, the City of Appleton and other surrounding communities to encourage mass transit expansion in the Town and improve resident awareness of local transit access points.



The Town of Buchanan Connectivity

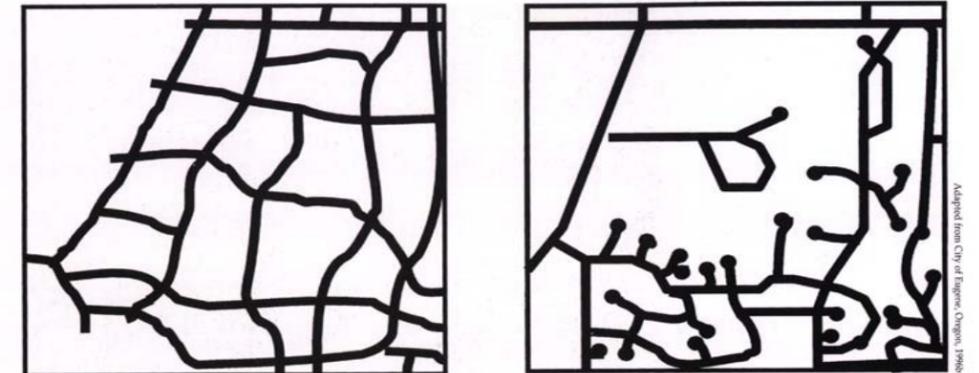
What is Connectivity?

The purpose of a street network is to connect spatially separated places and to enable movement from one place to another. With few exceptions, a local street network connects every place in a community to every other place in the community. But, depending on the design of the network, the quality of those connections will vary. A community with good connectivity will have many connections. A community with poor connectivity will have many dead-end roads.

CONNECTIVITY

In reviewing the *Transportation Map*, the road network is not well connected in some areas. There are many cul-de-sacs and dead-end roads located in the southwestern part of the Town. To increase the Town’s connectivity, the Town should:

- Encourage developers to consider connections to existing subdivisions and looping roads in new developments instead of cul-de-sac development.
- Monitor traffic patterns to consider long-term needs for future road connections. In the less developed eastern part of the Town, many roads are located along section lines (spaced approximately 1 mile apart). In the future, it may be necessary (in some locations) to consider internal connection roads. These internal connection roads are typically spaced at ½ mile interval. The Town should seek to limit development patterns that would prevent the construction of future internal roads by using an Official Map.



(Left) A high-connectivity street network. (Right) A low-connectivity street network).
SOURCE: Planning for Street Connectivity, PAS Report 515, by Susan Handy, Robert G. Paterson & Kent

SAFETY AND TRAFFIC

During the planning process, residents raised concerns with respect to safety. Issues ranged from traffic control to children not having enough safe ways to get around the community. To address these concerns, this plan recommends sidewalk improvements, and the establishment of more local and regional trails. In addition, lane widening and intersection improvements are identified in several locations in Buchanan. These activities must be coordinated with Outagamie County and WisDOT as necessary. If the Town decides to install curb and gutter in the future, proper space will be provided for parking and emergency vehicles.

NEED FOR MORE TRAFFIC LIGHTS⁶

During the SWOT exercise, residents felt there are not enough traffic lights in the Town. Residents may feel this way because it is difficult to safely cross streets while walking or driving. Traffic lights can provide solution for traffic issues, but are sometimes not the best solution. Traffic lights are expensive to install and maintain. Another option for the Town are roundabouts. Roundabouts provide safer and more efficient traffic flow than traffic lights. Roundabouts move traffic safely through intersections because of slower speeds, fewer conflict points and easier decision making for drivers and pedestrians. Studies by the Insurance Institute for Highway Safety show roundabouts provide a 90% reduction in fatal crashes, 76% reduction in injury crashes, 30-40% reduction in pedestrian crashes and 10 % reduction in bicycle crashes. The Town should consider roundabouts as an alternative to traffic lights. Roundabouts should be designed as bicycle and pedestrian friendly intersections. Areas of traffic concern have been identified on the *Future Transportation System Plan Map*. Roundabouts may be installed at some of these locations.

⁶ Portions excerpted from WisDOT: <http://www.dot.wisconsin.gov/safety/motorist/roaddesign/roundabout.htm>



Traffic Approaching Highway 441 from CE



Example of Intersection Improvement
CTH N and CTH CE

Recommended Transportation System Improvements

Table 21.0 (on the following page) describes transportation improvement projects anticipated in the Town of Buchanan. The projects, along with potential local street connections are identified on the *Future Transportation System Plan Map*.



Example of a Roundabout.

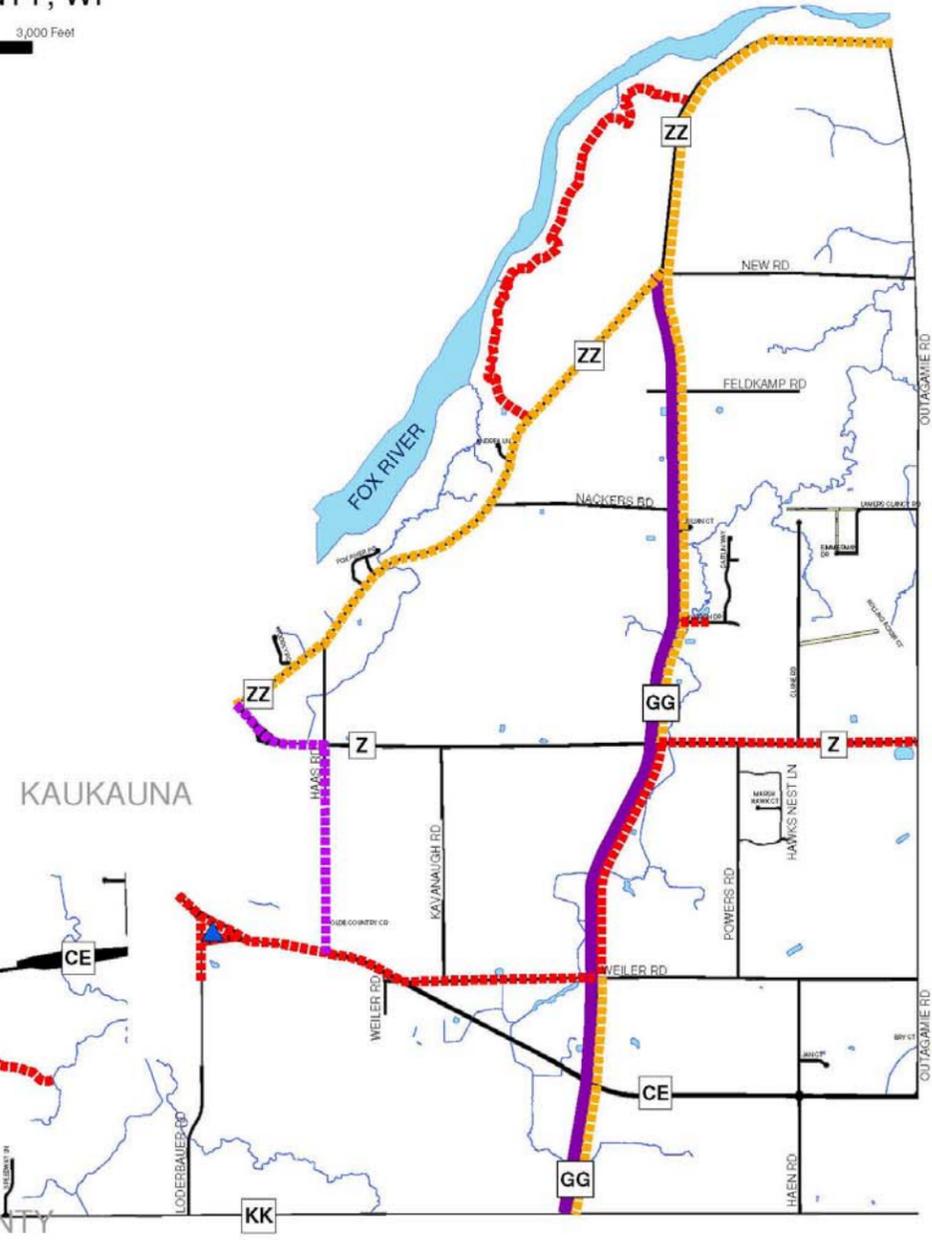
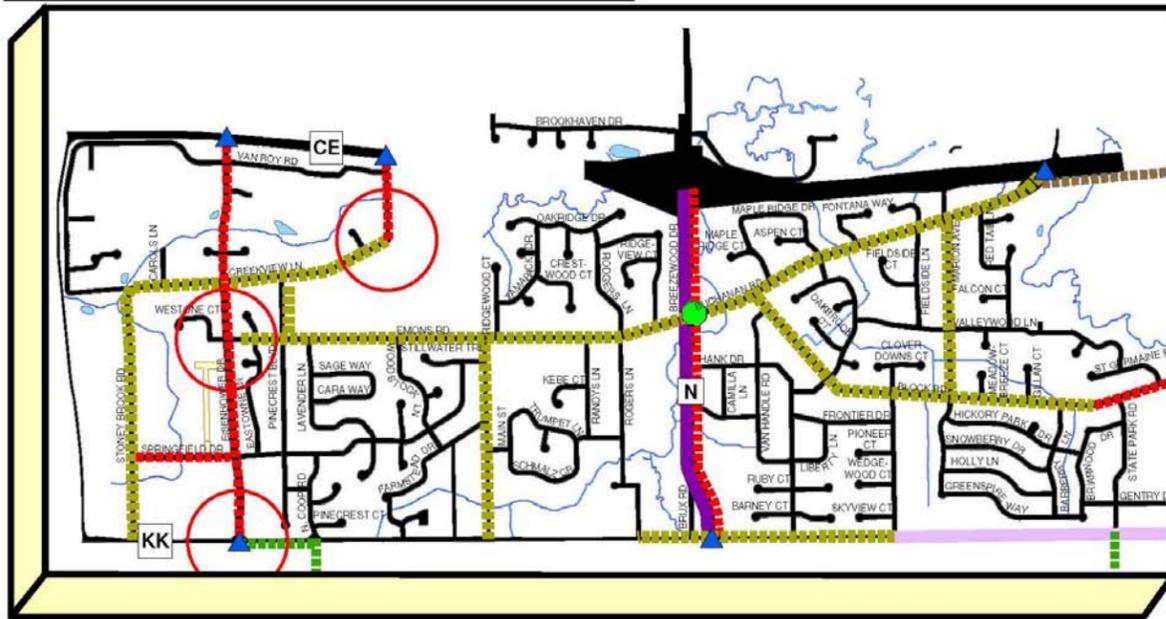
TABLE 21.0: Roadway System Improvements			
Facility	Jurisdiction	Segment / Location	Recommended Improvement / Action
Bike Lane	Outagamie County	CTH GG-Calumet County Line to Weiler Rd. and CTH Z to CTH ZZ.	Add bike lanes on both sides of road
Bike Lane	Outagamie County	CTH ZZ-entire segment through Town	Add bike lanes on both sides of road
Trail	Town/developer	West of CTH ZZ along Fox River	Add multi-purpose trail along river
Trail	County/Town	Extend CE Trail to Weiler Rd.	Add multi-purpose trail along CTH CE
Trail	Town	Weiler Rd east to CTH GG	Add multi-purpose trail along Weiler Rd.
Trail	County/Town	GTH GG-Weiler Rd. to CTH Z	Add multi-purpose trail along CTH GG
Trail	County/Town	CTH Z-From CTH GG to Brown County Line	Add multi-purpose trail along CTH Z
Trail	State/County/Town	STH 55-entire segment through Town	Add multi-purpose trail along STH 55
Trail	Town	East of STH 55	Add multi-purpose trail extended east of STH 55 to future potential park site
Trail	Town	Block Road east of existing trail	Add multi-purpose trail
Trail	Town	Debruin Road	Add multi-purpose trail
Trail	Outagamie County	CTH NN-from Calumet County to CTH CE	Add multi-purpose trail along CTH NN
Trail	Outagamie County	CTH AP-entire segment through Town	Add multi-purpose trail along CTH AP
Trail	Town	Springfield Dr. between CTH AP & Stoney Brook Road	Add multi-purpose trail
Trail	Town	Northern most portion of Creekview Ln.	Add multi-purpose trail
Trail	Town/developer	Between Creekview Ln. and Emons Road	Add multi-purpose trail through future development.
Sidewalk/Bike	Town	Buchanan Road	Add bike lanes and sidewalk
Sidewalk/Bike	Town	Marion Ave. between Buchanan Road and Block Road	Add bike lanes and sidewalk
Sidewalk/Bike	Town	Block Road-from Buchanan Road to existing trail segment.	Add bike lanes and sidewalk
Sidewalk/Bike	Town	Emons Road	Add bike lanes and sidewalk
Sidewalk/Bike	Town	Main St.	Add bike lanes and sidewalk
Sidewalk/Bike	Town	Pinecrest Blvd. between Emons Road and Creekview Ln.	Add bike lanes and sidewalks
Sidewalk/Bike	Town	Creekview Ln. between Stoney Brook Road and future multi-purpose trail.	Add bike lanes and sidewalks
Sidewalk/Bike	Town	Stoney Brook Road	Add bike lanes and sidewalks
Roundabout	County/Town	Intersection of CTH N of Buchanan/Emons Road	Add roundabout to safely and efficiently control traffic flow
Roundabout	State/County	Intersection of STH 55 and CTH CE	Add roundabout to safely and efficiently control traffic flow

FUTURE TRANSPORTATION SYSTEM PLAN MAP

TOWN OF BUCHANAN OUTAGAMIE COUNTY, WI



- Legend**
- PROPOSED BIKE LANES
 - PROPOSED CALUMET COUNTY TRAILS
 - PROPOSED COMBINED LOCKS TRAILS
 - PROPOSED KAUKAUNA TRAILS
 - PROPOSED MULTI-PURPOSE TRAILS
 - PROPOSED SIDEWALK / BIKE ROUTES
 - RECOMMENDED FUTURE 2 TO 4 LANE EXPANSION
 - RECOMMENDED FUTURE TOWN COLLECTORS
 - ROADS
 - PROPOSED ROADS
 - FUTURE INTERSECTION IMPROVEMENTS (I.E. Signal Timing, Turn Lanes, Traffic Lights)
 - 1/4 MILE WALKING DISTANCE
 - PROPOSED ROUNDABOUTS



BROWN COUNTY

KAUKAUNA

KIMBERLY

COMBINED
LOCKS

CALUMET COUNTY

OMNI
PLANNING & DESIGN
INC.

PROJECT # 14151504
DATE: 01/15/2020
DRAWN BY: JAC
REVISION: 00 01 04
LOCATION: 1500 W. WISCONSIN ST., SUITE 100, WAUKESHA, WI 53186
PHONE: 262.778.4500 FAX: 262.778.4500

Revised: East Central Wisconsin Regional Planning Commission
1800 Wisconsin Highway, 1800, Wauchesa, WI

Coordination with Other Required Plan Elements

ISSUES AND OPPORTUNITIES ELEMENT

The Issues and Opportunities Element establishes the framework for planning – the overall future vision – the ideal from which this plan has been developed. That vision will impact the way Buchanan considers and approves changes to the transportation network. It will also guide Buchanan’s participation in activities sponsored by WisDOT and Outagamie County. To realize the vision, and support the transportation vision presented in this chapter, Buchanan will seek to maintain its quality roads and expand other transportation choices, including trails.

HOUSING ELEMENT

Buchanan has a history requiring subdivision streets be built to minimum standards and requiring developers to comply with local requirements. Buchanan has also worked to provide street connections between neighborhoods and to provide safe points for subdivision street connection to Town, County and State Highways. These approaches are important to the success of the transportation network and the local quality of living. The opportunity exists to further improve connections between subdivisions by pursuing trail or path creation in the open spaces of adjoining subdivisions. Providing well-connected residential areas, including trails and some sidewalks, invites people to move into and through the community.

AGRICULTURAL, NATURAL AND CULTURAL RESOURCES

Buchanan has abundant agricultural and natural areas, including forests, rolling topography, river corridors and wetlands. These features contribute to the character of the community and quality of living. To provide access to these areas and to enhance enjoyment for residents trail development is encouraged in this chapter.

UTILITIES AND COMMUNITY FACILITIES

There is a close relationship between the Transportation Element and the Utilities and Community Facilities Element. This is due to the fact that transportation facilities are one type of community facility. Schools and parks are two important local community facilities. Access to these amenities is improved by providing choices beyond the automobile. This plan seeks to encourage access via trails and sidewalks to link these important community features to nearby neighborhoods.

ECONOMIC DEVELOPMENT

Providing a quality transportation system is important to successful local economic development. A quality transportation system makes businesses accessible to customers and suppliers. This is especially true as it relates to quality highway access. Just as businesses need good access, employees also want to be able to efficiently access their places of employment. Lack of access to employment opportunities may affect individual decisions to seek employment or live in a community.

When trails and sidewalks are provided to link commercial areas to outlying neighborhoods, it offers the opportunity to allow customers to easily move from business to business. They also provide an opportunity for groups that may not have access to vehicles (e.g. elderly and youth populations) to safely access local businesses.

In Buchanan, these issues were carefully considered with respect to recommended transportation system improvements. In addition, when developing the economic development element, locations for new business development were evaluated based on their proximity and access to important transportation corridors.

LAND USE

Land use and transportation are significantly connected to each other and have an effect on virtually everyone in a community. Transportation choices provide connections between land uses. The density and intensity of land uses impacts the type and number of transportation choices needed. While land use decisions are generally considered local and regional issues, the transportation impacts that accompany land use decision can transcend the boundaries of communities and regions.

INTERGOVERNMENTAL COOPERATION

The transportation network in Buchanan consists of many elements that are not controlled locally. For example, county trunk highways, state highways, and air transportation choices are all provided by other agencies and organizations. Accordingly, intergovernmental cooperation is a critical component of this Transportation Element and the key to future transportation initiatives and goals. To ensure that transportation choices remain, Buchanan will continue to coordinate with these agencies and organizations. Coordination will help ensure that transportation improvements and maintenance is well planned and timely.

IMPLEMENTATION

Using a capital improvements plan and budget, the costs of transportation improvements identified in this chapter can be addressed over time. The Town does not currently have a capital improvements plan and budget. Communities across the state use this tool to plan in a responsible manner. More information about this tool is provided in the Utilities and Community Facilities Element. Another opportunity that can also be pursued to finance maintenance of the transportation network is a transportation utility.

Transportation Goals, Objectives and Policies

The Town of Buchanan transportation goals, objectives, and policies can be found in Chapter 12: Implementation