8. Transportation

8.1 Overview

Union County’s transportation system is structured around major corridors that connect towns and villages within the County (see Section 2.7). Rural roads provide access to the agricultural and rural areas between these corridors and generally have low traffic volumes. In the towns and villages, buildings are typically constructed close to roadways, making it infeasible to widen them to increase capacity. Given these conditions, much of the existing network consists of two-lane roadways. The Plain Sect community travels throughout much of Union County via bicycle as well as horse-drawn vehicles. However, the limited shoulders along rural roadways in particular and the lack of multi-use trails create safety issues for these travel modes. Additionally, many villages and smaller town centers do not have complete sidewalk networks, inhibiting walkability and connectedness. The availability of public transit service is very limited. In general, there is a great interest in and need for multi-modal transportation options throughout the County. Towards this end, the sustainability key for this element is transportation choices.

It is critically important that the goals, strategies, and actions of the Land Use and Transportation Elements of the Comprehensive Plan be closely coordinated. The Plan targets 80% of new residential development to occur within existing towns and villages (designated as Primary and Secondary Growth Areas, respectively), and 20% to occur within rural areas. Most new commercial development is targeted to be located in Primary Growth Areas. In this context, multi-modal opportunities should be focused to serve and connect designated growth areas, which are Union County’s major existing and future population centers.

Mixed-use is the sustainability key of the Land Use Element. The mix of land uses and intensity of development in a particular area affects how motorists will access the transportation network, as well as the efficiency of the system. Land use characteristics also affect transportation needs, specifically by generating lesser or greater amounts of vehicular traffic. For example, developments that combine a mix of land uses (housing, retail stores, offices, etc.) generally experience a reduction in overall traffic because vehicular travel is not necessary between land uses, as would be required by conventional single-use developments. A mix of complementary uses, shared access and parking areas, a linked sidewalk network, and buildings designed for easy pedestrian connections are development characteristics that support the provision of multi-modal transportation choices.

SUSTAINABILITY KEY = MULTI-MODAL TRANSPORTATION CHOICES

A multi-modal transportation system is one that provides convenient choices for people to use different forms of travel, such as automobiles, bicycles, transit, and walking, to meet their mobility needs. Such a system promotes sustainability by supporting walkable communities where residential, retail, and other uses are located in proximity to each other, and by reducing automobile dependency, associated fuel consumption, and resulting emissions of carbon and other pollutants. In addition, the recent rise in gasoline prices at the pump highlighted the long-term importance of providing multi-modal transportation choices as a pocketbook issue for Union County residents.
8.2 Strengths and Issues

Strengths: Roads

- The existing road network provides sufficient access throughout most of Union County.
- Major roadways are generally designed to accommodate a variety of motorized vehicle types.
- With some exceptions, traffic congestion is not a major issue along most of the County’s rural roadways.
- The Lewisburg Traffic Advisory Committee and the Lewisburg Downtown Partnership’s Downtown Design Committee are committed to identifying and addressing traffic needs in Lewisburg.

Issues: Roads

- Traffic congestion (level of service E and F) currently occurs along the US Route 15 corridor, particularly during the commuter peak period on weekday afternoons. Delays will increase in the future, particularly at key intersections along the US Route 15, PA Route 45, and PA Route 192 corridors. (See Technical Appendix B for the results of a detailed analysis of existing and future capacity/level-of-service at 20 key intersections within the County.)
- The traffic demands along US Route 15 cause delays along the major intersecting streets of Market Street (PA Route 45) and Buffalo Road (PA Route 192).
- Due to traffic congestion along US Route 15, motorists are using alternate cut-through routes, which are designed to serve local and residential traffic. These routes include a series of roadways along the west side of US Route 15 north of Lewisburg and River Road on the east side of US Route 15.
- Traffic congestion and multimodal conflicts occur along PA Route 45 throughout the County, particularly in and between Lewisburg and Mifflinburg Boroughs, due to heavy vehicular traffic volumes (including truck traffic) and bicycle, pedestrian, and horse-drawn vehicle use. PA Route 45 is also a heavily traveled route for regional traffic and special events, such as during weekends of Penn State University home football games and the annual Christkindl holiday celebration in Mifflinburg.
- Heavy truck traffic along Buffalo Road (PA Route 192) west of Lewisburg, mainly from quarry operations, has caused deterioration of pavement conditions and traffic operations, adding to congestion along the corridor.
- There are conflicts between motorized and non-motorized vehicles due to the lack of shoulders and design deficiencies along many rural roadways.
• Some motorists do not follow posted speed limits along rural roadways, which creates unsafe conditions for both motorized and unmotorized travelers.

**Strengths: Railroad**

- Rail transportation reduces the number of trucks on roadways and provides an energy efficient alternative for moving large quantities of goods and county railroads can support the 286,000 pound railcar standard.
- There is significant commercial and industrial zoned land in White Deer Township, and to a lesser extent in Kelly Township, with rail service.
- County railroads and shippers have access to the Norfolk Southern Buffalo Line in Milton, PA and the Canadian Pacific Railroad at Sunbury, PA, both Class I railroads.
- There is a history of rail advocacy and interest within the region via the SEDA-COG Joint Rail Authority, Union County Industrial Railroad, West Shore Railroad, and the Lewisburg and Buffalo Creek Railroad.

**Issues: Railroads**

- Railroad infrastructure is costly to maintain and rail companies are finding it increasingly difficult to operate lines.
- As the local economy has shifted from manufacturing to a more service and retail orientation some municipalities have amended their zoning regulations to accommodate more commercial and retail developments on lands with rail access.
- The rail north of White Deer village is not operational due to a bridge being out over White Deer Creek. This would prevent rail service to the Great Stream Commons Business Park in Gregg Township if it were needed.

**Strengths: Bicycle Travel**

- Bicycles produce no harmful emissions and contribute to improved public health.
- Many residents, primarily the Plain Sect community and also students, faculty, and staff of Bucknell University, use bicycles as a primary form of transportation.
- Plans are underway to develop bicycle/pedestrian facilities via the Mifflinburg-Lewisburg Rail Trail and the Susquehanna River Greenway.

- Local committees and organizations, such as the Bicycle and Pedestrian Subcommittee of the Lewisburg Traffic Advisory Committee, the East Buffalo Township Pedestrian and Bicycle Committee, and the Lewisburg Area Recreation Authority (LARA), are committed to expanding bicycle facilities throughout the County.

**Issues: Bicycle Travel**

- Designated bike routes or paths in Union County are extremely limited. PennDOT’s “BicyclePA Route V” traverses east-west across the entire State and is designated along PA Route 192 through Union County; however, this route does not provide a demarcated lane for riders. Additionally, a small section of rail trail is provided at Cherry Run for bicycle use.
- The lack of paved shoulders providing an adequate width of four to eight feet for shared use along many roadways in the County creates conflicts between motorists, bicyclists, pedestrians, and horse-drawn vehicles.
Part II - Comprehensive Plan Elements

Strengths: Pedestrian Travel

- Walking is the most environmentally friendly form of transportation and contributes to improved public health.
- Sidewalk networks in and surrounding Union County’s boroughs and villages provide pedestrians with good internal mobility and access.
- Traffic signals in downtown Lewisburg and Mifflinburg provide for pedestrian push button activation for safe crossing movements at several locations.
- A pedestrian tunnel under US Route 15 connects the Bucknell University main campus with facilities and athletic fields on the west side of the highway.

Issues: Pedestrian Travel

- Automobile-oriented commercial areas, such as along US Route 15 north of Lewisburg in Kelly Township and PA Route 45 on the east side of Mifflinburg, lack pedestrian facilities and connectivity to adjacent developments and residential areas.
- Other roadways outside downtown and commercial areas that are heavily used by pedestrians (including joggers, runners, and school children) lack sidewalks and/or shoulders. Stein Lane and Smoketown Road in East Buffalo Township have been identified as especially problematic.
- The lack of designated trails in Union County (see Chapter 9) means that there is little or no connectivity between boroughs and villages or to surrounding developments and rural areas.
- The lack of paved shoulders providing an adequate width of four to eight feet for shared use creates conflicts between motorists, bicyclists, pedestrians, and horse-drawn vehicles along many roadways in the County.
- The County’s sidewalk network (predominantly in the boroughs and villages) is old and in general disrepair in many places.
- Where sidewalks are required by ordinance, developers can request a waiver through the SALDO process, thus continuing a pattern of discontinuity.

Strengths: Transit

- Transit service is provided by the Union/Snyder Transportation Alliance (USTA) via discounted or free bus service for senior citizens and Medical Assistance (Medicaid) ACCESS card holders.
- The USTA is examining expanding service for resi-
Issues: Transit

- The availability of transit service to the general public is very limited. USTA currently provides full fare service for the public. However, the service area is limited and trip reservations are required a day in advance, at minimum. In addition, participation in the USTA program is expensive ($7-34/trip) for those who do not qualify for a subsidized rate.

Strengths: Downtown Parking

- Existing parking spaces in Mifflinburg Borough are adequate to meet current as well as future needs based on projected growth potential.
- Current parking usage indicates a strong presence in the downtown Lewisburg Borough core.
- The Lewisburg Downtown Partnership’s Parking Task Group of the Business Support and Development Committee is committed to addressing parking needs in downtown.

Issues: Downtown Parking

- There is a lack of adequate signage in both Mifflinburg and Lewisburg to direct drivers to available public parking.
- Much of the parking in Mifflinburg is located behind buildings and is not designated as public parking, which further indicates the need for proper signage.
- In Lewisburg, inadequate parking for both employees of and visitors to the Union County Courthouse greatly impacts parking availability in the downtown.
- Store owners, employees, and residents utilize on-street parking in downtown areas for extended periods of the day.
- There is a public perception that the existing parking supply in downtown Mifflinburg is inadequate. However, portions of the available supply, such as on-street parking along side streets, is underutilized. In addition, motorists tend to avoid parallel spaces, resulting in underutilized parking along major corridors.
8.3 Transportation Goals

**Roadway Goals**
- Union County’s road network accommodates all travel modes, including both motorized and non-motorized users, in a safe and efficient manner.
- Automobile usage as measured by vehicle miles traveled is reduced through increased multimodal transportation options and mixed-use development patterns that reduce the need to drive.
- Vehicular flow along major corridors is improved through the targeted application of strategies to reduce traffic congestion.
- The County’s roadways are designed to standards that balance the need for efficient movement with safety and sensitivity to the surrounding context.

**Rail Goals**
- Viable rail service will be retained and expanded as demand warrants.
- Industrial zoned lands will be provided near rail so that rail served areas are not entirely developed for non-freight oriented commercial and retail uses.
- When an existing line is no longer viable, and the owner does not want to maintain and operate it, the corridor is railbanked for future use.

**Bicycle Goals**
- A comprehensive network of on-road bike lanes and shoulders and off-road trails safely accommodates bicycle travel within and between towns and villages.
- Bicycle use for both transportation and recreation purposes is increased as a percentage of trips taken by county residents.

**Pedestrian Goals**
- Complete sidewalk networks within Union County’s towns and villages promote walking as a basic form of transportation.
- Commercial corridors outside of town and village centers have sidewalks, crosswalks, and median refuges that provide safe pedestrian access.
- A multi-use trail network connects rural parts of the County to towns and villages.
- New development incorporates a mix of uses to encourage accessibility to pedestrians.

**Transit Goal**
- Convenient, affordable transit service to destinations throughout and beyond Union County is available to the general public.

**Parking Goals**
- Clearly marked parking is available in Union County’s town centers to support economic development and patronage of local businesses.
- New mixed-use developments encourage use of alternatives to the automobile, thereby reducing the need for parking.
Corridor/Intersection Improvements

LEGEND

Sampling of Improvements
- New Traffic Signal
- New Single Lane Roundabout Intersection
- Modify Existing Traffic Signal Timings and/or Phasing
- Construct Additional Auxiliary Turn Lanes
- Recommended Access Management Corridors
- Penn DOT or Developer improvement
- Project Proposed
- Safety Improvements

New traffic signals
- US Route 15 and River Rd/Beagle Club Rd
- New roundabout intersections
- Route 45 and 10th St (Mifflinburg)
- Airport Rd and Route 192
- Airport Rd and Wm Penn Dr
- Modify existing traffic signal timings/phasing
- US Route 15 and Route 304
- US Route 15 and Route 192 (add Route 192 advanced left-turn phase)
- US Route 15 and Hospital Dr/River Rd
- Route 192 and Airport Rd
- Construction of auxiliary turning lanes
- US Route 15 and Route 45
- PennDOT/Developer proposed improvements
- PennDOT project at US Route 15 and 4th St
- Great Stream Commons Business Park
- Improvements along US Route 15 and Route 44
- Safety Improvements
- Shirk Rd (Hartleton Borough)

Data Source: This map was developed using Union County GIS Data. Data is in Pennsylvania State Plane Coordinate, NAD 83.
8.4 Transportation Strategies

8-1. Implement targeted capacity improvements to improve traffic flow along major corridors (including US Route 15, PA Route 45, and PA Route 192) and at key intersections (e.g., JPM Road and Hospital Drive).

Examples of these improvements include dedicated turn lanes, new signals or coordination of existing signal timing, and roundabouts. Planning and design for such improvements should balance the need to improve capacity with the need to maintain environmental, scenic, and historic values through context-sensitive design solutions.

Based on the results of the analyses of a number of key intersections within the County (see Appendix B), specific roadway improvement projects are recommended as priorities to improve motorized traffic flow. These priorities are listed in the Planning Area Action Plans in Chapter 11.

Roundabouts
In a single-lane roundabout, there are only 8 vehicle-to-vehicle conflict points, reduced from 32 at a traditional intersection. Roundabouts encourage reduced speeds and increase traffic capacity since traffic is always moving. As a result, due to improved traffic operations, there is less delay and vehicle idling, resulting in fewer emissions. Currently over 1,400 roundabouts exist in the United States. According to a study completed by the Insurance Institute for Highway Safety in 2000, roundabouts reduce the frequency of all crashes by 39 percent, injury crashes by 76 percent, and fatal crashes by 90 percent.

Context-Sensitive Solutions
Context-sensitive solutions refer to planning and design of transportation and infrastructure projects to address environmental, scenic, and historic values along with mobility, safety, and economics. Typical transportation improvements can result in negative impacts on natural and historic resources. A concept that is gaining in acceptance by PennDOT and other state transportation departments, context-sensitive solutions are designed to adapt conventional engineering approaches to local conditions. They can be used to minimize the impacts of roadway, bridge, and other transportation construction projects on resources such as streams, woodlands, and scenic landscapes.

Case Study: The Danville-Riverside Bridge spanning the Susquehanna River in Montour County is a replacement project that was designed to be compatible with its historic, environmental, and agricultural setting. The project integrates a number of goals, such as traffic congestion relief, truck and delivery access, and access to historic business districts with a bridge design incorporating decorative work, plantings, architectural lighting, brick sidewalks, and park improvements.
8-2. Minimize the number, location, and width of intersecting streets and driveways along major corridors through access management techniques to improve traffic flow and safety.

Access management limits the ability of traffic to enter, leave, or cross through roadways in order to promote the efficient traffic flow. Access management techniques are critically needed along the County’s major roadway corridors, including US Route 15, PA Route 45, and PA Route 192. Future development along these corridors should be concentrated in designated growth areas and limited in rural areas in accordance with the growth management framework. New development should utilize existing intersecting street and driveway connections wherever possible, both to limit the number of access points and to promote connectivity between land uses. Additionally, as redevelopment occurs along these and other corridors, consideration should be given to consolidating access points to better manage traffic flow.

PennDOT Traffic Calming Handbook (Publication 383)

The Traffic Calming Handbook was developed by PennDOT in response to the growing interest in traffic calming practices. The Handbook provides guidance for the use of traffic calming measures along State roadways. Municipalities can also use the information in the Handbook to establish a traffic calming program for roadways within their jurisdiction. Various traffic calming issues are discussed, including legal authority, liability, funding, impacts on emergency services, etc. Additionally, a procedure is outlined for the completion of a traffic calming study and the approval process. The Handbook also provides discussion regarding the effects of various traffic calming measures. It is recommended that the Institute of Transportation Engineers publication Traffic Calming – State of the Practice, which provides additional history, principles, and examples of traffic calming, be used in conjunction with PennDOT’s Handbook.

Smart Transportation Guidebook

The Smart Transportation Guidebook was developed by PennDOT and NJDOT to integrate the planning and design of systems in a manner that fosters development of sustainable and livable communities. The principles are applicable to rural, suburban, and urban areas. The guidebook proposes to manage capacity through integration of land use and transportation planning. Roads have many purposes, including providing mobility and access, as well as to support economic growth. Smart Transportation outlines a new approach to roadway planning and design, in which the transportation solutions are specific to the needs of each project. Smart Transportation encompasses the ideas of context-sensitive solutions, network connectivity, and access/corridor management. Intended to assist states and communities in completing projects within a constrained budget, the principles are:

- Tailor solutions and approach to the context
- Plan all projects with the community
- Plan for alternative transportation modes
- Use sound professional judgment
- Scale the solution to the size of the problem
8-3. Enact regulations calling for new developments to adhere to appropriate design standards and address existing roadway deficiencies commensurate with project impacts.

At a minimum, design standards requiring sidewalks in new developments should be incorporated into site plan and subdivision regulations. Where appropriate, developers should be required to address the provision of additional facilities to promote multimodal travel (e.g., bike lanes, paved shoulders, and off-road trails), particularly where needed to fill identified network gaps. Consideration should also be given to enacting traffic impact study ordinances outlining guidelines for completion of traffic impact studies and identifying the responsibilities of new developments to mitigate traffic impacts.

The Pennsylvania Impact Fee Law, Act 209 of 1990 (amended in 2002), as outlined in Article V-A of the Pennsylvania Municipalities Planning Code, enables municipalities to impose traffic impact fees on new developments. Traffic impact fee ordinances are especially recommended for Union County municipalities projected to experience the most development (in the Eastern Planning Area and in the Central Planning Area along the Route 45 corridor). The state legislation also permits multiple municipalities to adopt a joint ordinance, an approach that should be considered for Union County to promote regional traffic assessments and planning. To enact an ordinance, municipalities must follow the process outlined in the law during a timeframe not to exceed 18 months, including preparation of a Land Use Assumptions Report, Roadway Sufficiency Analysis, and Transportation Capital Improvement Plan.

8-4. Widen and pave shoulders along key connecting roadway corridors to safely accommodate non-motorized users (pedestrians, bicyclists, and horse-drawn vehicles).

Particularly in rural parts of Union County, paved shoulders are a way to promote a multimodal network and to reduce conflicts between motorized vehicles and other users. Given the feasibility and design challenges that often characterize existing roadways, the most heavily traveled and suitable routes where off-street trails cannot be provided should be identified as priorities for this
Part II - Comprehensive Plan Elements

Bicycle Lanes and Shared Lanes

According to the Federal Highway Administration, bicycle lanes should provide a minimum of five feet next to a curb or adjacent parking lane, but wider lanes are recommended for roadways with higher vehicular speeds and volumes. However, for roadways that are too narrow and constrained to provide bicycle only lanes, shared lanes can be provided which are permitted for use by both motorists and bicyclists. Adequate signage and striping must clearly convey to both motorists and bicyclists that a lane is shared.

8-5. Establish a countywide network of designated bicycle routes consisting of bicycle lanes, shared lanes, and shoulders. A connected network of designated bicycle routes is needed to effectively promote bicycle use as an alternative means of transportation. Bicycle lanes and shared lanes are cost-effective ways to “retrofit” existing streets within designated growth areas and should be pursued in areas where modifications to the existing pavement or widening is feasible based on physical and design constraints. Outside of designated growth areas, bicycle routes can use the network of paved shoulders established per Strategy 8-4.

strategy. Shoulders should be four to eight feet in width along these routes.

Bicycle Lane

Shared Lane
Cross section examples from the AASHTO Guide for the Development of Bicycle Facilities:

**1) On-Street Parking**

- Parking stalls or optional 100-mm (4-inch) solid stripe
- 150-mm (6-inch) solid white stripe

**Previous cross section:**
- Two 8-foot parallel parking lanes
- Four 10.5-foot travel lanes (two lanes in each direction)
- 10-foot turning lane

**Modified cross section:**
- Two 11-foot travel lanes (one in each direction)
- 10-foot turning lane
- Two 6-foot bike/multi-use lanes (one in each direction)
- 8-foot parallel parking along south side
- 18-foot angle back-in only parking along north side

* The optional solid stripe may be advisable where stalls are unnecessary (because parking is light) but there is concern that motorists may misinterpret the bike lane to be a traffic lane.

**2) Parking Permitted without Parking Stripe or Stall**

- Vertical curb
- 150-mm (6-inch) solid white stripe
- Rolled (mountable) curb

**Previous cross section:**
- 3.6 m (12 ft) min.

**Modified cross section:**
- 3.3 m (11 ft) min.

* 3.9 m (13 ft) is recommended where there is a substantial parking or turnover of parked cars is high (e.g., Commercial areas).

**3) Parking Prohibited**

- 0.9 m (3 ft) min.
- 150-mm (6-inch) solid white stripe

**4) Typical Roadway in Outlying Areas Parking Protected**

- Rumble strip(s)
- 150-mm (6-inch) solid white stripe

**High Street in Pottstown Borough, Montgomery County.** As part of a traffic calming plan, Pottstown Borough modified the cross section of High Street in the downtown area to promote pedestrian/bicycle travel and to increase parking downtown.

- Previous cross section: Two 8-foot parallel parking lanes, Four 10.5-foot travel lanes (two lanes in each direction), 10-foot turning lane
- Modified cross section: Two 11-foot travel lanes (one in each direction), 10-foot turning lane, Two 6-foot bike/multi-use lanes (one in each direction), 8-foot parallel parking along south side, 18-foot angle back-in only parking along north side
8-6. **Provide multi-use trails to accommodate off-road non-motorized travel, particularly in areas where adequate bike lanes, sidewalks, or paved shoulders are infeasible due to constraints.**

While most of the multimodal network will be accommodated along existing roads and streets, off-road trails can provide critical links in the network. Currently in the planning stage, the Mifflinburg-Lewisburg Rail Trail will function as the “spine” of a multi-use trail network by connecting the County’s two major town centers (Lewisburg and Mifflinburg) and roadway corridors (US Route 15 and PA Route 45). Signage should be provided at major intersecting streets and destinations along the trail, as well as at locations where the trail can be accessed.

Establishing a continuous trail along the Susquehanna River as part of the Susquehanna River Greenway, including a connection to the Mifflinburg-Lewisburg Rail Trail in downtown Lewisburg, is another important priority. The rail trail is currently planned to terminate at Huffnagle Park in Lewisburg, although how it will cross the barrier created by US Route 15 needs to be resolved. The connection from downtown Lewisburg to the river is a longer term prospect that likely will be accommodated via the existing street/sidewalk network.

8-7. **Maintain multimodal streets, roads, and trails to ensure safety for non-motorized users.**

Pavement along routes designated for non-motorized users should be maintained in good condition. Shoulders should be swept frequently to remove debris that can damage bicycle tires. Drainage grates should be reconstructed/reoriented to be safe for passage by bicycles. Other hazards, such as rough shoulders and road surfaces that are prone to puddles, should also be addressed. All signage and pavement markings associated with non-motorized route designations must be maintained.
8-8. Provide connected street and sidewalk networks in towns and villages.

The pedestrian-friendly environment of Lewisburg, Mifflinburg, and Union County’s smaller towns and villages is an important transportation resource that should be enhanced by establishing continuous sidewalk networks within each community. Gaps in existing sidewalk connections and streets without sidewalks that provide linkages to important destinations (e.g., schools and shopping areas) should be targeted as priorities to ensure continuity in walkable communities.

A connected street system provides choices for drivers, thus distributing traffic and reducing congestion along major corridors. In Pennsylvania, municipalities can adopt official maps that define existing and future streets, pedestrian routes, and other public lands and easements. Consideration should be given to preparing and adopting official maps for Union County’s designated growth areas, thus providing a framework for ensuring connected street and sidewalk networks within these areas as they develop.

8-9. Establish safe pedestrian facilities along commercial corridors (US Route 15 in the Lewisburg area and PA Route 45 in the Mifflinburg area) and provide connections to nearby residential areas.

If pedestrian travel is to be a viable alternative to motorized travel, safe connections must be provided for everyday trips. Currently, the US Route 15 corridor lacks pedestrian facilities through the growth area designated by the plan in East Buffalo and Kelly Townships and Lewisburg Borough. Continuous sidewalks along the corridor, sidewalk connections to intersecting streets, and safe crossings across US Route 15 are critically needed to accommodate pedestrian usage. Appropriate pedestrian treatments for the traffic conditions and needs along US Route 15 at various locations should be explored with PennDOT, including consideration of the following options:

- Pedestrian crossing treatments at uncontrolled locations
- Exclusive pedestrian traffic signal phasing
- Median modifications to provide a “refuge” allowing pedestrians to cross US Route 15 in two stages
- Pedestrian bridge over US Route 15
- Pedestrian tunnel under US Route 15

The proposed Lewisburg-Mifflinburg Rail Trail is one of the key crossing points (Strategy 8-6).

On the east side of Mifflinburg, pedestrian facilities are not provided along the PA Route 45 commercial corridor east of Line Street. A continuous sidewalk network with designated crossings should be pursued to promote pedestrian access to existing and future development.
8-10. Incorporate bicycle and pedestrian facilities into transportation improvement projects wherever possible.

As a matter of course, roadway improvement projects should include sidewalks, pedestrian signals, and crosswalks for pedestrians and dedicated or shared lanes for bicyclists. Successful implementation of this strategy depends on incorporating these elements into the planning process at an early stage; towards this end, an overall transportation improvement policy with design standards for alternative modes should be established for use by PennDOT, Union County, and the municipalities. All pedestrian facilities must be designed and constructed in accordance with the requirements of the Americans with Disabilities Act.

8-11. Develop maps and other materials related to alternative transportation choices available in Union County and communicate this information to the public.

These materials could include:

- A map keyed to a network of signed bike routes throughout the County
- Other materials to enhance public awareness of bicycling as an alternative form of transportation and to promote safe interactions between bicyclists and drivers.
- A map identifying preferred routes for horse-drawn vehicles
- Other materials to promote awareness in the general public and Plain Sect community (e.g., the horse and buggy driver safety manual prepared by the Lancaster County Planning Commission)
- A map identifying off-road and preferred on-road routes for recreational walkers and runners and associated safety pamphlet to educate users and the motoring public, particularly in the vicinity of Bucknell University

The maps can be used for planning purposes to guide development of the bicycle, horse-drawn vehicle, and walking/running networks, including priorities for projects such as shoulder widening, bike lane striping, and signage installation.

8-12. Work with the local school districts to promote the safety of children walking and bicycling to school.

Union County’s school districts should participate in a “Safe Routes to Schools” (SRTS) initiative. SRTS initiatives use 1) education, enforcement, and infrastructure improvement strategies to make routes safer for children to walk and bicycle to school and 2) “encouragement” strategies to entice them to do so with the involvement of parents, teachers, and administrators. The Pennsylvania Department of Transportation has funding available for infrastructure projects (e.g., sidewalks, crosswalks, traffic signals, etc.) through the federal SRTS program.

8-13. Explore the feasibility of providing public transit service to serve and connect Union County’s designated growth areas. Develop a phased program to provide such service over time.

The County should work with the Union/Snyder Transportation Alliance (USTA) to evaluate areas of need where additional public transit can be provided, as USTA is currently pursuing expanded service. Additionally, Bucknell University has expressed an interest in providing students
with transit service as the campus expands in the Lewisburg area. Local partnerships will be vital to assessing and enhancing public transit in Union County.

Public transit is difficult to sustain in rural and less populated suburban areas because population density is critical to a successful public transportation system. In these areas, transit services are often limited to less stops per hour, or may operate only during the peak commuter hours. This inconvenient service forces people to plan around the transit schedule, and will ultimately attract less ridership with more people continuing to use their personal vehicles.

Light rail transit systems in the United States have a consistent history of low ridership, resulting in low cost effectiveness. Light rail produces only 3.6 percent of transit trips in the United States, but consumes approximately 12 percent of transit capital funds. A more cost effective and viable approach to public transit in small suburban and rural areas is bus service. Buses can carry the same capacity as light rail systems, doing so at an estimated 1/7th of the cost, with much less investment for implementation.

The Federal Transit Administration provides funding for public transportation in rural and small urban areas with a population of less than 50,000 through the Federal Section 5311 Program, which was created through the Federal Transit Act of 1964. Eligible applicants include counties, cities, public transportation corporations, and regional transit authorities. The Section 5311 Program provides grant assistance in the following areas: feasibility studies, capital projects, expenses, and intercity projects.

In order to effectively implement a widely used, sustainable public transit system, coordination is needed throughout Union County and the region. A community-based transportation management organization could be established to assess and monitor public transit needs. This organization could work with USTA, Bucknell University, large employers, local public school districts, and others to promote and encourage transit use and other transportation alternatives such as ride sharing and car pooling.

8-14. Explore the potential to expand long-distance bus service to/from Lewisburg to increase accessibility to destinations outside of the County.

The County could work with USTA and private carriers such as Greyhound Lines to explore opportunities for expanded service. The objective would be to increase multimodal choices for residents, including access to travel options such as Amtrak and air travel.
8-15. Coordinate the provision of parking in designated growth areas, particularly downtown Lewisburg and Mifflinburg, with implementation of the Comprehensive Plan land use and multimodal transportation strategies. Explore options to meet needs that do not require parking lot expansion.

While adequate, accessible parking is essential for the economic viability of downtown businesses, increased provision for alternative modes of travel (walking, biking, and transit) and mixed-use development patterns that decrease the need to drive will affect parking demand. Parking utilization counts should be taken regularly in downtown Lewisburg and Mifflinburg to evaluate trends and provide a basis for managing demand.

Techniques such as shared parking can be used to meet parking needs in designated growth areas, along with management techniques such as signage, metering, and permitting (see Strategy 8-16). In Lewisburg and Mifflinburg, partnerships can be established to allow for sharing of parking areas that have limited use hours with the general public (e.g., church lots, which are typically used by members mainly on Sundays).

The evaluation of parking needs for mixed-use developments should address the potential for shared parking. Mixed-use developments typically contain complementary land uses that reduce the need for separate vehicle trips, thus reducing parking demand and associated pavement area. Municipalities can enact ordinances that reduce parking requirements for mixed-use developments that provide shared parking. Ordinance standards can be based on parking industry guidelines, such as those published by the Urban Land Institute.
8-16. Develop parking management programs to more effectively manage demand and supply in Lewisburg and Mifflinburg Boroughs. Program components should include directional signage in both Lewisburg and Mifflinburg, enhanced metering and permitting in Lewisburg, and consideration of future metering along PA Route 45 in Mifflinburg.

A signage plan to clearly demarcate public parking spaces and direct visitors and residents to them is recommended for both Lewisburg and Mifflinburg Boroughs. Directional signage can be creatively designed to indicate time/distance to downtown destinations, thus counteracting public perceptions that some parking areas are too remotely located.

In addition to directional signage, an enhanced parking metering and permitting program should be developed in Lewisburg to achieve more effective utilization of available public parking. This program should be structured to promote use of the main street spaces by patrons of local businesses and to direct employee and residential parking to side streets and public lots accessed from them. The Parking Task Group of the Business Support and Development Committee of the Lewisburg Downtown Partnership is evaluating potential changes to the current program and has completed an initial report, including parking utilization counts, which can serve as a baseline. As modifications are made to the program parking counts should be completed on a regular basis in order to monitor effectiveness. Specific recommendations for enhancements to downtown Lewisburg’s existing parking program are provided in the Eastern Planning Area Action Plan in Chapter 11.

In downtown Mifflinburg, signage is provided to indicate two-hour parking along PA Route 45, which functions as the main street. However, it is difficult to monitor parking activity without metering the spaces. In the future as parking demand increases, the Borough may need to consider metered parking along PA Route 45 to encourage and enforce longer term parking on side streets and in public parking lots.

8-17. Provide for the parking needs of non-motorized means of transportation, including bicycles and horse-drawn vehicles.

As the strategies to establish designated routes, lanes, and paths are implemented and bicycle usage increases, bike racks should be provided in town and village centers, in new commercial developments via ordinance requirements, and at other key destinations for riders. Bike rack locations should allow for convenient access while minimizing conflicts with pedestrians (e.g., by blocking sidewalk use). In order to ensure all modes of travel are accommodated, consideration should be given to providing accommodations (i.e., hitching posts) for horse-drawn vehicles in towns and village centers, in new commercial developments via ordinance requirements, and at community facilities.