

Chapter 5
Transportation Plan

Chapter 5: Transportation Plan

An effective and efficient transportation system is one of the most critical elements in land use planning. A safe, efficient, environmentally sound and fiscally responsible transportation system results in an enhanced quality of life and economic opportunities in a community. Future land uses are directly affected by existing and proposed transportation systems, and vice versa. Roadway types, capacity, and conditions directly contribute to the siting of land uses, and the type and intensity of land uses directly impact roadway types, capacity, and conditions.

This Future Transportation Plan incorporates the overall Comprehensive Plan goals and objectives and also establishes specific recommendations and policies for transportation improvements. This Plan provides an overview of existing transportation facilities and the functional classification system of the county's roadways. The Plan further identifies proposed changes, improvements, and low-cost operational projects to meet projected land use demands and improve the transportation facilities and network. This Plan also identifies greenways and trails system and outlines an access management plan to manage ingress and egress along roadways, minimize traffic conflicts and congestion, and maintain traffic flow. Finally, the Plan addresses policy and regulatory implications of transportation improvements and projects.

Existing Transportation Facilities

Nelson County has an extensive network of existing transportation facilities. This network includes a total of 302.455 miles of state roadways, including 30.43 miles of parkway, and 442.13 miles of local roads and streets. The local roadway system is comprised of 359.72 miles of county roads and 82.41 miles of city streets, including 52.91 miles of Bardstown city streets, 22 miles of Bloomfield city streets, 2.5 miles of Fairfield city streets, and 5 miles of New Haven city streets. The County's transportation facilities also include the city-county airport, Samuels Field, and R.J. Corman railroad. This network is presented on Maps #5-1 through 5-6 in the Map Appendix.

Roadway Functional Classification System

Basic to the development of any logical highway system is the recognition that travel involves movement through a network of inter-related roads and streets. The movement must be channeled through an efficient hierarchical system that progresses from a lower classification handling short, locally oriented trips to higher classifications that connect regional and inter-regional traffic generators, handling longer trips. Nelson County's existing transportation system is based on a functional classification system which ranks roadways according to the character of service they provide. The functional classification system has 2 geographic areas, rural and urban, and, within these areas, the system has 5 basic classification types – principal and minor arterial, major and minor collector, and local roads. Table #5-1 and Maps #5-1 and 5-2 in the Map Appendix provide a description of each classification system and listing of the Nelson County and Urban roadways and streets based on their classification.

Table #5-1: Functional Classification System of Nelson County Roadways

<u>Classification Description</u>	<u>Local Roadways</u>
Principal Arterial Roads	
Rural Non-interstate roadways outside urban areas that carries substantial statewide or interstate travel and provides service to most areas with a population of at least 25,000	Martha Layne Collins (Bluegrass) Parkway
Urban Non-interstate roadways with no control of access and that carries a majority of the total urban area travel on a minimum of mileage and are connected both internally and with major rural systems.	US 31E / US 150 (North Third Street) US 31E (Cathedral Manor) US 62 (Bloomfield Road) KY 245 (John Rowan Boulevard)

Chapter 5: Transportation Plan

Table #5-1: Functional Classification System of Nelson County Roadways (continued)

<u>Classification Description</u>	<u>Local Roadways</u>
Minor Arterial Roads	
Rural Roadways providing inter-state and inter-county service, linking cities, large towns, major resort areas and other major traffic generators, and being spatially distributed according to population density so all developed areas are within reasonable distance of an arterial highway.	KY 61 (Lebanon Junction Road) KY 245 (New Shepherdsville Road) US 31E / US 150 North (Louisville Road) US 31E South (New Haven Road) US 150 South (Springfield Road)
Urban Roadways providing trips of moderate length, providing land access, making urban connections to rural collector roads, having lower level of travel mobility, and providing intra-community connections between various neighborhoods and carrying local bus routes.	KY 49 (Parkview Drive) US 62 (West Stephen Foster Avenue) US 62 (Bloomfield Road) US 150 / US 62) (East Stephen Foster Ave.) US 150 (Springfield Road)
Major Collector Roads	
Rural Roadways serving primarily inter-county rather than statewide travel, with travel distances shorter than on arterial routes, and linking county seats, nearby larger cities, large towns and other traffic generators of inter-county importance.	KY 48 (Highgrove Road) KY 49 (Loretto Road) KY 52 (Lyons Station Road) KY 52 (Nelsonville Road) KY 52 (New Hope Road) KY 55 (Springfield Road) KY 55 (Taylorsville Road) KY 84 (Stiles Road) KY 480 (Solitude Road) US 62 (Boston Road) US 62 (Bloomfield Road) US 62 (Chaplin Road) US 62 (Lawrenceburg Road)
Urban Roadways accumulating traffic from local streets and channeling it into the arterial system, providing land access and traffic circulation within identifiable neighborhoods of inter-community importance, such as residential neighborhoods, commercial areas, and industrial areas.	KY 332 (Old Nazareth Road) KY 1430 (Templin Avenue)
Minor Collector Roads	
Rural Roadways serving primarily inter-county rather than statewide travel, with travel distances shorter than on arterial routes, providing service to the remaining smaller communities, linking locally important traffic generators to the rural areas, and is spatially distributed according to population density to collect traffic from local roads.	KY 46 (Balltown Road) KY 46 (Nat Rogers Road) KY 162 (Old Bloomfield Road) KY 247 (Howardstown Road) KY 247 (Monks Road) KY 457 (Gap Knob Road) KY 457 (Holy Cross Road) KY 457 (J.T. Riggs Road) KY 457 KY 458 (Old Tunnell Mill Road) KY 458 (Chaplin-Taylorsville Road) KY 462 KY 332 (Old Nazareth Road) KY 509 (Samuels Road) KY 509 (Fairfield Road)

Chapter 5: Transportation Plan

Table #5-1: Functional Classification System of Nelson County Roadways (continued)

<u>Classification Description</u>	<u>Local Roadways</u>
Rural (continued)	KY 523 (Deatsville Road) KY 605 (Woodlawn Road) KY 605 (Poplar Flat Road) KY 605 (Manton Road) KY 652 (Little Union Road) KY 733 (Wilson Creek Road) KY 1858 (Stringtown Road)
Urban Roadways accumulating traffic from local streets and channeling it into the arterial system, providing land access and traffic circulation within identifiable neighborhoods of inter-community importance, such as residential neighborhoods, commercial areas, and industrial areas.	South Third Street Old Bloomfield Pike O'Bryan Avenue Allison Avenue East and West Muir Avenue South First Street

Local Roads

Rural Roadways offering lowest level of mobility and primarily providing access to adjacent land and carrying travel of distances shorter than collectors or arterials.	All other roadways not identified in higher classifications.
Urban Roadways offering lowest level of mobility and primarily providing access to abutting land and access to higher order systems.	All other roadways not identified in higher classifications.

Source: Kentucky Transportation Cabinet, Division of Planning. http://transportation.ky.gov/planning/maps/SFCS/func_maps.asp

Airport

Samuels Field (BRY) Airport is a municipal airport and is located at 1924 Boston Road, approximately 2 miles southwest of Bardstown on Boston Road (US 62). The airport is administered by the Bardstown-Nelson County Air Board, comprised of 3 members appointed by the Mayor and with approval by the Bardstown City Council and 3 members appointed by the Judge/Executive and with approval by the Nelson County Fiscal Court. A Secretary-Treasurer is assigned by the Mayor and is the first point of contact for all airport administration.

The airport has a single 5000' x 75' paved runway with a 5000-foot parallel taxiway and a connecting taxiway to the aircraft parking apron. Land facilities include a 1,600 square foot terminal and administration building, 12,200 square yards of apron, 10-unit T-Hangar, 9-unit T-Hangar, 3 conventional storage hangars, and vehicular parking. The airport also has 100LL Avgas and Jet A fuel system with a 24-hour self-serve credit card system. Land uses within and around the facilities of Samuels Field Airport are regulated by the Kentucky Airport Zoning Commission.

With additional airport storage and ramp space, the airport is adequate to serve the short-term general aviation needs of the community. Nonetheless, future improvements and expansion of Samuels Field must be anticipated and recognized as an important element of the community's overall long-term development strategy.

National Bike Trails

Two national bike trails extend through Nelson County. These routes provide opportunities for biking enthusiasts to see and experience Nelson County and provide a unique tourism opportunity. The following national bike trails extend through Nelson County:

- Central Heartlands Tour – This tour extends from Carrollton to Tennessee border at Dale Hollow Lake and is approximately 210 miles. In Nelson County, this tour extends along Little Union Road (KY 423) and Main Street (KY 48) in Fairfield, Murray's Run Road, North Third Street (US

Chapter 5: Transportation Plan

31E/US 150), East Stephen Foster Avenue (US 150), and Parkview Avenue / Loretto Road (KY 49).

- Kentucky's TransAmerica Bike Trail – In Nelson County, this tour extends along Springfield Road (KY 55), Stringtown Road (KY 1858), Bloomfield Road (US 62), East Stephen Foster Avenue (US 150), Parkview Avenue / Loretto Road (KY 49), (KY 457), (KY 247), (KY 84)

National Truck Network (NTN).

The National Truck Network (NTN) is a network of 200,000 miles of approved state highways and interstates for commercial truck drivers in the United States. Federal width and length limits apply on these highways. Nelson County has these roadways designated as part of the National Truck Network in Nelson County:

- US 150 (East Stephen Foster Avenue and Springfield Road) from Bloomfield Road (US 62) to Washington County line.
- KY 245 (John Rowan Boulevard and New Shepherdsville Road) from US 150 (Springfield Road) to Bullitt County line.
- Martha Layne Collins Parkway (Bluegrass Parkway).

Public Transit

Nelson County currently does not have a public transit system. Several non-profit agencies, such as the Transit Authority of Central Kentucky (TACK), provide transportation for certain populations. Also, several ridesharing programs, such as Ticket to Ride, provide opportunities for car and vanpools. Nelson County has several designated park and ride locations, including sites on New Shepherdsville Road (KY 245) at Rooster Run and on Templin Avenue (KY 1430) at New Shepherdsville Road (KY 245). The park and ride located on Louisville Road (US 31E) at Fairfield Road (KY 509) in Cox's Creek was removed due to the new roadway project; however, the Kentucky Transportation Cabinet is considering replacing this park and ride area along the corridor.

Public transportation provides an affordable, and for many, necessary, alternative to driving. Public transportation provides personal mobility and options for individuals to get to work, go to school, go to doctor's office, or shop. Public transportation reduces congestion and saves fuel and money. A public transit system should be developed within the Urban area to provide affordable transportation between key destinations, such as downtown, medical facilities, major retail and employment centers, government offices, and schools. As well, additional opportunities for ridesharing programs and sites should be developed.

Railroad

The Bardstown Line of the R.J. Corman Railroad Company is a 20-mile freight line through Bardstown and northwest Nelson County and extending to the Bullitt County line. This line provides access to the Bardstown Industrial Park, Wilson Industrial Park, and other Urban industrial centers and hauls plate steel, plastics, lumber, building supplies, brick and distillers' grain. A rail line has been on this route since the 1860s, and the Bardstown line is the home of My Old Kentucky Dinner Train.

Future Roadway Planning & Improvements

As the pattern of growth and development occurs in Nelson County, traffic will continue to steadily increase, and traffic congestion will continue to occur in areas with heavy concentration of residential, commercial, industrial, public and institutional uses. By coordinating land use planning and transportation planning, a well-planned and coordinated transportation system will result in optimal traffic flow, circulation, and connectivity, efficient access management, improved pedestrian safety, and reduction of traffic conflicts. To meet projected land use demands through 2035 and improve the community's transportation facilities and network, future road improvements have been identified by the Kentucky Transportation Cabinet, local legislative bodies, and Planning Commission. Maps #5-3 through #5-7 in

Chapter 5: Transportation Plan

the Map Appendix identify specific future road improvements, and the following paragraphs provide a summary of state and local transportation improvements.

The recommended improvements and projects are derived from *Kentucky's 2010 Recommended Highway Plan*, *LTADD Regional Transportation Unscheduled Projects List*, and *Bardstown Small Urban Area Transportation Study* and other local transportation plans. Because this Plan does not provide significant detail and mapping, these plans and any and all amendments thereto are incorporated by *reference* as part of this Transportation Plan, and any improvements and projects listed thereon must be anticipated and incorporated into the planning for future growth and development.

State Highway Plans

Since the 1970s, Kentucky has implemented a statewide transportation planning process to solicit local involvement in the identification, evaluation, and prioritization of transportation needs. This process involves comprehensive public involvement, extensive data collection, and analysis and evaluation of transportation system and needs. Most of this planning process is accomplished through a cooperative program with the 9 Metropolitan Planning Organizations (MPOs), 15 Area Development Districts, and 12 Highway District offices. The Kentucky Transportation Cabinet contracts with the ADDs to assist in the transportation planning process. Each ADD has a transportation advisory committee comprised of representatives from local governments, transportation users and providers, and other special interests. Through the committee's input and extensive data collection and system analysis, the transportation needs are identified, documented, and then prioritized every 2 years and provided as input to Kentucky's Six-Year Highway Plan or Unscheduled Needs List.

Six-Year Highway Plan

The *Six-Year Highway Plan* is the vehicle through which major highway improvement projects scheduled for the biennium are submitted through the Kentucky General Assembly for approval and funding. This plan establishes the priority operational, maintenance, safety, pavement restoration, and bridge repair projects approved and funded by state. Table #5-2 provides an overview of the *2010-2012 Biennial Highway Construction Plan* for Nelson County. Maps #5-3 through 5-6 in the Map Appendix identify the general location of the projects listed on the Six-Year Highway Plan.

Table #5-2: Six-Year Highway Plan, Nelson County

Project #	Route	Description
6	Louisville Road (US 31E)	Widening and access management improvements between Nazareth Drive and Samuels / Fairfield Roads (KY 509)
8	Springfield Road (US 150)	Major widening between Parkview Drive (KY 49) to Leslie Ballard Lane
10	Springfield Road (US 150)	Replacement of Beech Fork bridge

Although inadvertently omitted from the 2010-2012 Biennial Highway Construction Plan, the proposed relocation of Louisville Road (US 31E) from Whitesides Road to the county line is an anticipated roadway construction project and will be listed on subsequent Six-Year Highway Plans. This project is shown as Project #5 on Map #5-3 in the Map Appendix.

Unscheduled Needs List

The Kentucky Transportation Cabinet also maintains a database of unscheduled needs. These unscheduled needs are identified, documented and prioritized in the same process as the state's six-year road plan. Unscheduled needs are those projects and improvements that have been identified but have not advanced to and have not been funded under the Six-Year Highway Plan. The unscheduled needs list is reconciled to each newly adopted Six-Year Highway Plan to recognize project phases that have advanced to the Six-Year Highway Plan and to ensure completion of projects begun in that short-term plan. Table #5-3 provides an overview of *LTADD Regional Transportation Unscheduled Projects List*. Maps #5-3 through 5-6 in the Map Appendix identify the general location of the projects listed on the

Chapter 5: Transportation Plan

Unscheduled Projects List.

Table #5-3: LTADD Regional Transportation Unscheduled Projects List, Nelson County

Project#	Route	Description
1	New Shepherdsville Road (KY 245)	Addressing geometric issues between hospital and Samuels Loop (KY 509) and major widening between hospital and county line
2	Bloomfield Road (US 62)	Widening from East John Rowan Boulevard (KY 245) to Woodlawn Road (KY 605) with dual turn lanes at Woodlawn Road (KY 605)
3	Bloomfield Road (US 62)	Construction of continuous left turn lane from Guthrie Drive to East John Rowan Boulevard (KY 245) and major widening between East Stephen Foster Avenue (US 150) and Guthrie Drive
7	Monks Road (KY 247)	Realignment near Abbey of Gethsemani
10	Springfield Road (US 150)	Reconstruction from Leslie Ballard Lane to county line
11	East John Rowan Boulevard (KY 245)	Major widening between Springfield Road (US 150) and Bloomfield Road (US 62)
15	Northeast Connector	Construction of connector road between Bloomfield Road (US 62) and Louisville Road (US 31E)
16	Old Nazareth Road (KY 332)	Widening and improvements between Louisville Road (US 62) and New Shepherdsville Road (KY 245) for connector road
17	Northwest Connector	Construction of connector road between Old Nazareth Road (KY 332) and New Shepherdsville Road (KY 245)
18	Southwest Connector, Phase I	Construction of connector road between New Shepherdsville Road (KY 245) and Boston Road (US 62)
19	Southwest Connector, Phase II	Construction of connector road between Boston Road (US 62) and Bluegrass Parkway
22	Loretto Road (KY 49)	Spot improvements between Old Gilkey Run Road and Bluegrass Parkway Overpass
25	Springfield Road (KY 55)	Improvements between Bloomfield Road (US 62) and Bluegrass Parkway
26	Woodlawn/Poplar Flat Roads (KY 605)	Spot improvements between Bloomfield Road (US 62) and Springfield Road (US 150)
28	Bellwood Road (KY 733)	Reconstruction at various locations to alleviate flooding
29	Taylorville Road (KY 55)	Reconstruction/relocation from Chaplin Road (US 62) to county line (Also shown as Project #5 on Map #5-4, Proposed & Potential Transportation Improvements for the Bloomfield Town Area in the Map Appendix)

Of the projects listed in the *2010-2012 Biennial Highway Construction Plan and Unscheduled Needs List*, several have implications for land use planning. The effects of these improvements and projects on land use planning cannot be overstated, and the Planning Commission and legislative bodies must stay involved in the ongoing planning process, both to offer local input at every level and to be able to act in coordination as the improvements and projects progress. Specifically, the Planning Commission, legislative bodies, and other stakeholders must establish an agreement about future development and access management along these significant corridors. Any corridor studies or plans should be adopted as addenda to the Comprehensive Plan, and overlay zoning districts should be adopted and implemented to ensure compliance with corridor studies and to ensure compatible and managed growth and development along the roadway corridors.

The following paragraphs provide an overview of specific policy and regulatory implications for key corridors and recommendations to address land use implications:

Chapter 5: Transportation Plan

- Louisville Road (US 31E) Widening/Reconstruction from Old Nazareth (KY 332) to County Line (Projects #5 & 6, Maps #5-3 and 5-4). This corridor serves as the northern gateway into the community. To maintain the integrity of the roadway as a primary arterial and protect the character of this rural corridor, a corridor study should be undertaken to identify and coordinate current and future land use proposals along the corridor and address access management. Specifically, this corridor plan should include access management strategies, such as the design and implementation of frontage or backage roads between Old Nazareth Road (KY 332) and Samuels and Fairfield Roads (KY 509), to provide connectivity between developments and to accommodate short distance trips. This study should also provide for pedestrian, bicycle, and ridesharing facilities.
- Springfield Road (US 150) Widening from Parkview Drive (KY 49) to Bluegrass Parkway (Eastern Bardstown Gateway) (Project #8, Maps #5-3 and 5-4). The Eastern Bardstown Gateway is a primary gateway into Bardstown, and specifically to My Old Kentucky Home State Park, from the Bluegrass Parkway. A corridor study should be conducted to protect the integrity of this primary arterial and gateway and to ensure managed access, compatible land uses, coordinated design, and pedestrian and bicycle facilities.
- Springfield Road (150) Widening and Improvements from Bluegrass Parkway to Leslie Ballard Lane (Project #8, Maps #5-3 and 5-4). A corridor study should be conducted to ensure roadway integrity and coordinated land uses. An overlay zoning district adopted and implemented to address access management, such as frontage or back roads, and to provide connectivity between developments and accommodate short distance trips. Pedestrian and bicycle facilities should be accommodated along this corridor.
- East John Rowan Boulevard (KY 245) and Bloomfield Road (US 62) Intersection Improvements (Project #13, Map #5-4). The area immediately surrounding this intersection has potential for future non-residential development. Concurrently with any future intersection improvements, a small area study should be conducted to identify and plan for compatible future land uses and improved access management and connectivity.
- Widening of Bloomfield Road (US 62) from East John Rowan Boulevard (KY 245) to Woodlawn Road (KY 605) with dual turn lanes at Woodlawn Road (KY 605) (Project #2, Maps #5-3 and 5-4). This corridor includes significant traffic generators, including schools, industries, and other retail and general commercial uses. A corridor study should be conducted and specifically address school access and circulation patterns to enhance traffic flow and minimize congestion.
- Major widening and improvements of Bloomfield Road (US 62) from East Stephen Foster Avenue (US 150) to East John Rowan Boulevard (KY 245) (Project #3, Map #5-4). This high-traffic corridor has few turning lanes and no traffic signals, except at each terminus. To improve traffic flow and reduce traffic conflicts, this corridor will be widened to include a continuous turning lane and should incorporate pedestrian and bicycle facilities. A corridor study should be conducted to improve access management for future development and/or redevelopment along this corridor.
- Major widening of New Shepherdsville Road (KY 245) from hospital to Nelson-Bullitt County line (Project #1, Maps #5-3 and 5-4). This corridor serves as the western gateway into the community. To maintain the integrity of the roadway as a primary arterial and protect the character of this rural corridor, a corridor study should be undertaken to identify and coordinate current and future land use proposals along the corridor and address access management. Specifically, this corridor plan should include access management strategies, such as the design and implementation of frontage or backage roads to provide connectivity between developments and to accommodate short distance trips. This study should also provide for pedestrian, bicycle, and ridesharing facilities.
- Major widening of East John Rowan Boulevard (KY 245) between Springfield Road (US 150) and Bloomfield Road (US 62) (Project #11, Map #5-4). This corridor serves as a major commercial and industrial area and serves as a major urban connector to the Bluegrass Parkway. Access management is critical to protecting the function and safety of this roadway. An access management overlay district should be considered, and bike and pedestrian facilities should be incorporated.
- Development and construction of northeast, northwest and southwest connector roads from

Chapter 5: Transportation Plan

Bloomfield Road (US 62) to Louisville Road (US 31E), Louisville Road (US 31E) to New Shepherdsville Road (KY 245) and New Shepherdsville Road (KY 245) to Boston Road (US 62), and Boston Road (US 62) to Bluegrass Parkway (Projects #15-19, Maps #5-3 and 5-4). These connector roads will make additional areas available within the Urban and Suburban areas for development; however, these connector roads should be developed as major urban collector roads with limited and controlled access. These roadways should be designed as boulevards with center landscaped medians and bicycle lanes. To ensure the availability of sufficient right-of-way for these corridors, scoping studies should be conducted soon to evaluate the need for the project, possible environmental impacts, roadway design matters, and stakeholder issues, and as allowed under Section 100.281(5), rights-of-way for these connector corridors should be preservation by dedication. Also, to protect the integrity of these roadways as primary arterial and character of these corridors, corridor studies should be undertaken to identify and coordinate current and future land use proposals and address access management and connectivity.

Bardstown Small Urban Area Transportation Study

The *Bardstown Small Urban Area Transportation Study* was conducted by the Kentucky Transportation Cabinet in February 2008. This transportation study identified operational modifications to improve the transportation system within the Urban Area and focused on opportunities to maximize the current highway assets using low-cost projects, including roadway, transit, pedestrian, and bicycle improvements. The study also identified strategies needed to accommodate the travel needs of a growing population, especially within newly developing areas. This study, however, did not identify new major state funded improvements and did not address those major improvements already identified and prioritized as part of the state unscheduled needs list.

The following paragraphs provide an overview of significant Study recommendations and an overview of specific policy and regulatory implications for land use planning:

- Access Management Standards. These standards should be incorporated into existing plans and regulations in order to maintain roadway capacity, traffic flow, and safety as development and redevelopment occurs.
- School Transportation Coordination. Coordination between local government and schools should be initiated and ongoing to identify and develop methods for mitigating high traffic volumes and congestion on roadways near existing and proposed schools. Such methods may include staggered start and departure times to spread high traffic volumes over longer period and reduce congestion and alternative bus and vehicular routes and circulation patterns to facilitate overall traffic flow.
- Adequate Facilities Ordinance. An adequate facilities ordinance should be developed and adopted to ensure that new developments and redevelopments occur where there are adequately-designed roadways, both in geometry and capacity.
- North Third Street (US 31E) from Beall Street (KY 1430) to John Rowan Boulevard (KY 245). This segment of North Third Street (US 31E) is a candidate for a “road diet” project, which reduces the roadway from 4 lanes to 3 lanes – one through lane each direction plus a center continuous turn lane. This “road diet” will eliminate left turn movements from the through movement and make the road more efficient and safe. This project should also incorporate bicycle lanes along both sides. Any development and/or redevelopment along this corridor should incorporate access management techniques, such as limited or shared driveways and improvement of existing rear alleys to serve as reverse frontage roads, or “backage” roads.
- Cathedral Manor (US 31E) and West Stephen Foster Avenue (US 62) (Project #21, Map #5-4). The City of Bardstown has completed designs for improvements of this intersection; however, a design has not been selected. As this intersection serves as a focal point for and gateway to the Bardstown Historic District, any improvements should be compatible with the historic character of the district. This project should provide for pedestrian and bicycle facilities and evaluate and coordinate school traffic to improve traffic flow and circulation.

Chapter 5: Transportation Plan

- Cathedral Manor / New Haven Road (US 31E) from Bluegrass Parkway to West Stephen Foster Avenue (US 62). The Southern Bardstown Gateway is a primary gateway into Bardstown, and specifically into the Bardstown Historic District. A corridor study should be conducted to protect the integrity of this primary arterial and gateway and to ensure managed access, compatible land uses, coordinated design, and pedestrian, bicycle, and ridesharing facilities.
- Templin Avenue (KY 1430) between New Shepherdsville Road (KY 245) to North Fifth Street. This corridor is a potential development area within the Urban area, and Templin Avenue serves as a major urban connector. Prior to any future development along this corridor, a corridor study should be conducted to identify future land uses and traffic potential and identify roadway improvements, pedestrian and bicycle facilities, and access management.
- East John Rowan Boulevard (KY 245) between Bloomfield Road (US 62) and North Third Street (US 31E). This high-traffic corridor serves as a major arterial connection, and access management is critical to protect the function and safety of the roadway. A corridor study should be conducted to evaluate existing and future intersections and interconnectivity between land uses.
- Fourth Street Extension to Frost Avenue (Project #20, Map #5-4). This collector road project will provide connectivity between downtown and West John Rowan Boulevard (KY 245). This project will alleviate traffic demand on Templin Avenue (KY 1430) and North Third Street (US 31E).

Local Roadway Improvements & Maintenance

Transportation within the County can be significantly improved with a well planned and maintained system of local roadways. Existing roadways should be maintained or improved to accommodate current and projected traffic demands with basic improvements, such as access management, lane widening and addition of turning lanes and shoulders. New collector roads should be constructed to fill specific gaps between arterial roads and create multiple alternatives for roadway travel. Collector roads should be planned along with urban and suburban developments and should be designed to carry traffic from local roads or from neighborhoods for activity areas within communities and to arterial roadways.

The following list provides an overview of potential collector roads and specific policy and regulatory implications:

Urban Area (Map #5-4)

- North Fourth Street Extension to Frost Avenue (Project #20). The purposes of this extension are to provide improved connectivity between downtown Bardstown and West John Rowan Boulevard (KY 245) and to alleviate traffic pressure off of North Third Street (US 31E) and Templin Avenue (KY 1430).
- West John Rowan Boulevard / New Shepherdsville Road (KY 245) - Connectors (Projects #23 and 24). Connector roads at the intersection of Withrow Court to Mainstream Boulevard and to Templin Avenue (KY 1430) at Ben Irvin Road (KY 2737) should be developed to provide better connectivity between KY 245 and KY 1430. These connector roads also will provide access for future development and distribute traffic.
- Filiatreau Lane to Spencer Mattingly Lane Connector (Project #27) – This connector roadway will provide connectivity between the two major collectors. This roadway will alleviate demand and delay on East John Rowan Boulevard (KY 245) and provide safe multimodal connections.

Bloomfield Town Area (Map #5-5)

- Taylorville Road (KY 55) & Arnold Lane Connector (Project #1) – This connector roadway will provide an alternative multimodal route between KY 55 and the schools and commercial center along Arnold Lane and Chaplin Road (US 62). This connector will alleviate traffic pressure in downtown Bloomfield and along Chaplin Road (US 62) and provide access for future residential development along its corridor. This project should include pedestrian and bicycle facilities and address access management.

Chapter 5: Transportation Plan

- Springfield Road (US 62 / KY 55) to Chaplin Road (US 62) Connector (Project #2) – This connector road will provide an alternative route between major arterial roadways and should be developed as a collector road with limited and controlled access. To protect the integrity of this roadway as a major collector, a corridor study should be undertaken to identify and coordinate current and future land use proposals and address access management, connectivity, and multi-modal alternatives.
- Springfield Road (US 62 / KY 55) to KY 162 to Highgrove Road (KY 48) Connectors (Projects #3 and 4) – These connector roadways will provide an alternative route between major and minor arterial roadways and should be developed as collector roads with limited and controlled access. To protect the integrity of this roadway as a major collector, a corridor study should be undertaken to identify and coordinate current and future land use proposals and address access management, connectivity, and multi-modal alternatives.

New Haven Town Area (Map #5-6)

- High Street to New Hope Road (KY 52) Extension (Project #1). The purposes of this extension are to provide improved connectivity between downtown New Haven, park, and schools and New Hope Road (KY 52). This connector road will provide access for future residential development and serve as an alternative route and alleviate traffic pressure off of Center Street (KY 52). This project should include pedestrian and bicycle facilities and address access management.
- Watertank Road to New Hope Road (KY 52) Extension (Project #2) – This extension will provide an alternative route between New Hope Road (KY 52) and North Main Street (US 31E). This connector road will alleviate traffic pressure off of Center Street (KY 52) and afford access for future residential development. This project should include pedestrian and bicycle facilities and address access management and address access management.

Access Management

Access Management is the process of providing and managing access to land development while preserving the regional flow of traffic in terms of safety, capacity, and speed. Access management addresses a broad array of quality of life issues fundamental to promoting livable, prospering communities. Access management has many benefits:

- Fosters well designed circulation systems that improve the safety and character of commercial corridors;
- Discourages subdivision practices that destroy the rural character of the landscape or essential natural resources;
- Advances economic development goals by promoting more efficient use of land and transportation systems; and,
- Helps control public service costs and the substantial public investment in infrastructure and services.

Effective access management requires planning as well as regulatory solutions. A comprehensive policy framework should be established to support access management in the planning process, provide for the preparation of corridor or access management plans for specific problem areas, and encourage good site planning techniques. Access management programs should address commercial development along thoroughfares, as well as flag lots, residential strips, and other issues related to the division and subdivision of land. Comprehensive and sub-area plans provide the rationale for access management programs and can serve as the legal basis for public policy decisions.

The effects of development on service costs, community character, and overall quality of life are increasing concerns. However, conventional regulatory practice has played a role in perpetuating land development problems. This problem is apparent by the cycle of functional undesirability created by strip commercial development along major arterials, and the practice of strip zoning major corridors for

Chapter 5: Transportation Plan

commercial use is too common. The primary reasons are accessibility and expedience of rezoning highway frontage for commercial use as additional land is needed. Extension of utilities along highway rights-of-way promotes this linear land use pattern, and commercial businesses favor corridor locations because of the ready supply of customers.

Yet as development intensifies along a roadway, the growing number of curb cuts and turning movements conflicts with the intended function of arterials - to move people and goods safely, quickly, and efficiently. Unlike urban downtowns or activity centers, commercial strips are rarely designed for pedestrians or transit. Commercial corridors, residential areas, and office parks are frequently sealed off from each other with walls, ditches, loading docks and a host of other barriers—including the heavily traveled arterials that serve them.

Poorly coordinated access systems force more trips onto the arterial, traffic conflicts multiply, and congestion increases. As the level of service declines, additional lanes, controlled medians, and other expensive retrofitting measures are needed to maintain the capacity of the corridor for regional traffic. Businesses also suffer as accessibility deteriorates. Heavy traffic, difficult left turns, and poor sight clearance at corners deter customers. Businesses may relocate to areas where accessibility is less impaired, causing increased vacancies and declined property values in the area from where they moved. Eventually the corridor is transformed into an unattractive and confusing jumble of signs, curb cuts, utility lines, and asphalt.

These outcomes are not inevitable results of development and growth. Rather, they relate to the lack of proper land division and access controls and problems inherent in current planning and regulatory practice. To achieve effective access management, planning and regulatory tools must be developed and implemented.

The comprehensive planning process should establish how the community will balance mobility with access, identify the desired access management approach, and designate corridors that will receive special treatment. This may be supplemented through functional plans, such as an access management or thoroughfare plan, or through sub-area plans, such as an interchange or corridor plan. When evaluating future land use needs, vacancies and surplus land already available for that use should be evaluated. Additional highway frontage should not be planned or rezoned for commercial use where vacant or surplus commercial space is already available. This policy encourages reuse of existing commercial sites, increases property values in those areas, and is a long term economic development strategy.

Regulatory tools should incorporate all or part of the elements of the *Kentucky Model Local Access Management Ordinance*, such as roadway classification by function and requirements for sight distance, driveway spacing, maximum driveways per lot, corner lot access, corner clearance, shared (joint and cross) access, turn radius, driveway width, driveway throat length, and parking/loading. Overlay zoning districts also should be identified and implemented as method for managing access along commercial corridors. The tool is used to overlay a special set of requirements onto an existing zoning district, while retaining the underlying zoning and its associated requirements. Text that specifies standards for the access management overlay district is included in the land development (or zoning) code and then corridors are designated on the zoning map. Overlay requirements may address any issues of concern such as joint access, parking lot cross access, reverse frontage, driveway spacing and limitation on new driveways.

Chapter 5: Transportation Plan

Access Management Goals & Guidelines

During the development review process, land use proposals should be evaluated to provide for and manage access to developments while preserving the regional flow of traffic in terms of safety, capacity, and speed. Land use proposals should further the following access management goals and guidelines:

Goals:

- Promote safe passage between roadways and adjacent land uses and properties.
- Improve the convenience and ease of movement of travelers on roadways.
- Maintain reasonable speeds and economy of travel.
- Increase and protect the capacity and efficiency of congested roadways.
- Protect the reasonable economic development of the surrounding land.
- Facilitate transportation and avoid creating problems of access or interference with traffic movement.
- Minimize direct roadway access for land uses on major arterial roads.
- Minimize direct access to residential property on major arterial roads.

Guidelines:

- The road system should be designed to meet the projected traffic demand.
- The road network should consist of hierarchy of roads designed according to function.
- Access should be properly placed in relation to sight distance, driveway spacing, and other related considerations.
- Developments should have access on local streets rather than major roadways.
- Areas unsuitable for development should be avoided.
- Developments should include pedestrian path system links from buildings to parking areas, entrances to the development, open space, and recreational and other community facilities.
- Developments should incorporate internal access roads to afford movement between adjoining and adjacent properties and to diminish the number of vehicular trips between nearby and adjoining uses.
- Shared curb cuts and driveways and coordinated or joint parking should be provided between developments to afford vehicular circulation between uses and minimize traffic on major roadways.
- Major access points on opposite sides of arterial roadways should be located directly opposite each other to reduce turning movement conflicts, or if infeasible, turning movement restrictions should be established.
- Commercial and industrial access points on arterial roadways should be limited to the primary property, and internal access, such as frontage or backage roads, should provide internal access for outlot developments.
- Loop roads or parallel access roads should be encouraged and should be located adjacent to primary arterial roads to limit the number of direct access locations on major thoroughfares.
- Points of ingress and egress should be clearly defined to promote the orderly, safe and logical movement of traffic.
- Pavement, pavement striping and traffic control signage should be maintained to improve drivers awareness of traffic movement patterns.
- Traffic signage should be consolidated where possible to reduce visual clutter.
- Access points should comply with safe sight distance practices as recommended by the Institute of Transportation Engineers.
- New development proposals should conduct a traffic impact analysis or study to determine any adverse impacts on adjacent roadways and intersections and to identify for mitigating adverse impacts, such as road and/or intersection improvements, traffic signal or stop sign installation, etc.

Chapter 5: Transportation Plan

Primary Sidewalk Improvements

Sidewalk improvements contribute to the overall transportation network and provide access and connectivity. A well-coordinated and -maintained sidewalk network promotes pedestrian mobility and recreation and is an important factor in evaluating the quality of life in a community. The Comprehensive Plan's Statement of Goals and Objectives supports sidewalk improvements as an alternative mode of transportation for shorter trips and as a method for safe connection and pedestrian crossings. The development review process should include provisions for improving the sidewalk network within and between developments.

Complete Streets

A complete street policy provides streets that are designed and operated to enable safe access for all users, including pedestrians, bicyclists, motorists, and transit riders of all ages. Complete streets improve safety for all users, encourage more livable community that allows choices in transportation, helps children and family by providing safe routes to schools, and reduces traffic and congestion by removing shorter trips made by car.

A complete street would include sidewalks, bike lanes, or a wide paved shoulder, bus lanes, transit stops, median islands, accessible pedestrian signals, curb extensions, etc. However, a complete street in an urban, suburb, and rural area will not all contain the same elements or look the same. Each community will need to balance safety and convenience for everyone using the road. While all aspects of a complete street are not applicable to each community, each community should consider developing and adopting a policy that is specific to their community and incorporates particular aspects of the complete street policy that meets their needs of the residents and visitors.

Green Streets

A green street incorporates a variety of design and operational treatments to develop a balanced approach to meet the transportation needs of pedestrians, bicyclists, and motorists and incorporate stormwater quality and quantity best management practices. Green streets assist in the reduction of stormwater runoff by diverting stormwater from the sanitary sewer system, reducing basement flooding, sewer backups, and combined sewer overflows and therefore improving general water quality. As a permitted community under the Kentucky Pollutant Discharge Elimination System (KPDES), the City of Bardstown is required to meet certain water quality provisions of the EPA's Water Quality Act of 1987. Thus, green streets provide a practical and cost-effective approach to address Bardstown's permitting obligation.

A green street enhances and expands the public open space, preserves or improves the character of the surrounding land use while providing water quality and quantity benefits for the community. The design and function of green streets should vary with the surrounding land use and community activities. Urban and suburban streets should each respond to their environment and develop unique and distinctive characteristics. A green street integrates treatments, such as accessible sidewalks, traffic calming, road diet, rain gardens, vegetative swales, street trees within stormwater filter units and other pedestrian-scaled features. A green street program should be implemented as part of an overall stormwater management policy to offer mixed-use development options with multi-functional infrastructure that would reduce the demand for increased infrastructure capacity while meeting the general water quality requirements.

Chapter 5: Transportation Plan

Streetscape Improvements

The physical elements or amenities of a street can visually define and create an identity of a community. Five corridors within the Urban area should be considered for streetscape improvements:

- **East Bardstown Gateway**. The East Bardstown Gateway is a developing commercial area located at and surrounding Exit #25 of the Martha Layne Collins (Bluegrass) Parkway and at the intersection of East John Rowan Boulevard (KY 245) and Springfield Road (US 150).
- **South Bardstown Gateway**. The South Bardstown Gateway is an existing commercial developed area on New Haven Road (US 31E) at Exit #21 of the Martha Layne Collins (Bluegrass) Parkway.
- **West KY 245 Corridor (KY 245 & US 31E)**. The West KY 245 Corridor is an existing developed commercial corridor along West John Rowan Boulevard (KY 245) and extending from Templin Avenue (KY 1320) to North Third Street (US 31E).
- **East KY 245 Corridor (KY 245 & US 62)**. The East KY 245 Corridor is an existing developed commercial corridor along East John Rowan Boulevard (KY 245) and extending from North Third Street (US 31E) to Bloomfield Road (US 62).
- **Bloomfield Road Corridor (US 62)**. The Bloomfield Road Corridor is an existing developed commercial area and extending from Guthrie Drive, through the East John Rowan Boulevard (KY 245) intersection, to Woodlawn Road (KY 605).

Streetscape improvements will include aesthetic and functional enhancements and provide a unified image through design elements, such as street lighting, landscaping, street trees, signage, and street furniture, where applicable. Such elements visually define a community and reinforce the land uses within the corridors.

Greenways and Trails Plan

Nelson County boasts many natural features that are attractive for outdoor recreational opportunities for residents and visitors. The Comprehensive Plan's Statement of Goals and Objectives advocates the promotion and protection of the community's unique natural resources and environmentally sensitive areas and supports the development of greenways and trails throughout the community. The Public Service Policies for each Community Character supports the greenways and trails system within and between developments. Map #5-8 in the Map Appendix identifies potential greenways and trails system for Nelson County.

A greenways and trails system will include pedestrian and bicycle routes designed to afford an alternative transportation mode and provide active recreational opportunities for residents and visitors. The path system will provide an alternative to vehicular transportation for commuting to work or making short trips to schools or institutional areas and will provide access to and connectivity between neighborhoods, community facilities, retail centers, and other destinations and attractions. It will also serve as a recreational amenity for residents and visitors.

This system should include a network of safe, interconnected pedestrian and bicycle facilities, especially within the Urban, Suburban, Hamlet, and Village Community Character Areas. The network may include facilities, such as sidewalks, shared-use trails, shared roadway shoulders, and bicycle lanes. This combination of path types will allow the community to develop the trails incrementally as funding and property becomes available.

The system should be developed as a public-private partnership with portions of the path developed by the Cities and/or County and portions of the path developed by private individuals and organizations as developments are constructed. Public access on the paths should be permitted regardless of whether developed by public or private means.

Chapter 5: Transportation Plan

Policy and Regulatory Implications

The effects of transportation improvements and projects on land use planning cannot be overstated. The Planning Commission and legislative bodies must stay involved in the ongoing planning process, both to offer local input at every level and to be able to act in coordination as the improvements and projects progress. The Planning Commission, legislative bodies, and other stakeholders must establish an agreement about future development along the proposed major roadway corridors, in particular that residential development must be carefully planned, that non-residential development must be limited in both scale and use, and that potential adverse impacts on recreational, tourist, historic, cultural, scenic, and natural resources be avoided or mitigated. Many aspects of anticipated development can easily be planned well before the final routes of proposed roadway projects are set. It is important that work begin immediately to establish basic development guidelines for these areas. These basic guidelines can be further refined and amended to reflect necessary changes as the projects progress and become more specifically defined.

Transportation within the County can be significantly improved with a well-planned system of local collector roads. Also, existing roadways could better accommodate current and projected traffic demands with basic improvements, such as lane widening and addition of turning lanes and shoulders. Access management standards should be adopted to ensure safe and efficient access and traffic circulation and flow, and an adequate facilities ordinance should be adopted to ensure that new developments and redevelopments are served by adequately designed roadways, both in geometry and capacity.

This Plan includes numerous and repeated statements supporting pedestrian and bicycle facilities, ranging from a countywide greenways and trail plan to basic sidewalks within and between developments. These statements should be supported through incorporation into proposed transportation improvements and development projects. Pedestrian and bicycle facilities should be phased and occur as areas become more densely populated and developed. Further, complete and green street policies should be implemented to improve access and safety for all uses and incorporate best management practices for stormwater quality and quantity.

Corridors define specific areas that should be protected, and the Planning Commission, legislative bodies, and other stakeholders must establish an agreement about future development and access management along these significant corridors. Any corridor studies or plans should be adopted as addenda to the Comprehensive Plan, and overlay zoning districts should be adopted and implemented to ensure compliance with corridor studies and to ensure compatible and managed growth and development along the roadway corridors. These plans and studies should incorporate streetscape improvements along the 5 major corridors to visually define a community and reinforce the land uses within the corridors.

To create and maintain a safe and efficient transportation system supported in this Transportation Plan, the Zoning and Subdivision Regulations should be amended to fully implement the Plan's recommendations.