

2010

Comprehensive



pedestrian

Plan

Town of West Jefferson

NORTH CAROLINA



WE RECYCLE



ACKNOWLEDGEMENTS

The development of the Town of West Jefferson Comprehensive Pedestrian Plan, 2010, was a collaborative effort that involved numerous stakeholders, including the Town of West Jefferson Board of Aldermen, the West Jefferson Steering Committee, West Jefferson Town Staff, McGill Associates' Planners, and the North Carolina Department of Transportation's Division of Bicycle and Pedestrian Transportation which provided funding for this study.

The Town of West Jefferson wishes to express its sincere appreciation to those individuals, who, in any way, contributed to the creation of the Master Plan. Without the knowledge and expertise of these persons, in both individual and team capacities – this document would not be possible.

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TABLE OF CONTENTS

Section 1	Introduction <ul style="list-style-type: none">1.1 Vision Statement1.2 Overall Goals1.3 History1.4 Scope and Purpose of Plan
Section 2	Evaluating Current Conditions <ul style="list-style-type: none">2.1 Overview2.2 Local Transportation Network Assessment2.3 Assessment of the Pedestrian Compatibility of the Local Transportation System2.4 Inventory and Assessment of Existing Pedestrian Facilities
Section 3	Existing Plans, Programs, and Policies <ul style="list-style-type: none">3.1 Local, Regional, and State Plans and Guidelines3.2 Programs and Initiatives Currently Underway or Planned3.3 Statutes and Ordinances3.4 Policies and Institutional Framework3.5 Relevant Pedestrian Statues and Ordinances
Section 4	Strategic Pedestrian System Plan <ul style="list-style-type: none">4.1 System Overview4.2 Corridor Identification4.3 Special Focus Areas4.4 Potential Projects and Infrastructure Improvements4.5 Special Population Sectors
Section 5	Facility Standards and Guidelines <ul style="list-style-type: none">5.1 Pedestrian Design Considerations and Guidelines
Section 6	Program and Policy Recommendations <ul style="list-style-type: none">6.1 Ancillary Facilities and Programs6.2 Policy Recommendations6.3 Program Recommendations
Section 7	Project Development <ul style="list-style-type: none">7.1 Opportunities and Strategies7.2 Action Steps7.3 Prioritization of the Proposed Pedestrian Network7.4 Ancillary Facilities and Programs7.5 Staffing7.6 Funding Opportunities7.7 Town of West Jefferson Comprehensive Pedestrian Plan

APPENDICES

Appendix A

Jefferson Workshop Flyer

Appendix B

Community Survey

Appendix C

Survey Results

Appendix D

Ashe County High Frequency Crash Location Map

Appendix E

Relative Transit Need Maps

Appendix F

Priority Calculator

Priority Calculator Spreadsheet

Preliminary Cost Estimates

Appendix G

Facility Proposed Maps

Appendix H

Commonly Used Abbreviations

Appendix I

Ashe County Traffic Survey Group

Appendix J

West Jefferson Division Map

Appendix K

R2100 - Ashe County



SECTION ONE: INTRODUCTION

1.1 VISION STATEMENT

The Town of West Jefferson is committed to providing its citizens with a safe community in which to live, work, and play. Part of this commitment includes the future improvement and/or construction of pedestrian-friendly transportation corridors throughout the Town. Consequently, the Town of West Jefferson hired McGill Associates to develop a Comprehensive Pedestrian Plan, which would assist the Town in its efforts. A portion of the funding for the plan was derived through a grant, which was received from the North Carolina Department of Transportation (NCDOT), Division of Bicycle and Pedestrian Transportation (DBPT).



In April, 2010, McGill Associates met with members of the Pedestrian Plan Steering Committee to define their vision for the proposed West Jefferson pedestrian network. After a brief introduction, the Steering Committee participated in an exercise designed to elicit their perceptions of the needs and desires for a pedestrian system in West Jefferson. The vision statement (below) was derived from that exercise and submitted to the committee for approval.

The vision of the West Jefferson Comprehensive Pedestrian Plan is *"to promote a high quality of life through a safe, aesthetic, equitable, and well-connected pedestrian system for all the residents and visitors of the Town of West Jefferson"*.

1.2 OVERALL GOALS

The purpose of the Comprehensive Pedestrian Plan is to create a document to guide the Town of West Jefferson in the (1) planning, (2) design, (3) financing, (4) implementation, and (5) maintenance phases of its proposed pedestrian system. While enhancing and prioritizing capital improvements/maintenance projects for the Town, the plan will give special consideration to *critical* areas for pedestrian transportation and safety; as well as address Americans with Disabilities Act (ADA) compliance issues.

The goals of the West Jefferson Comprehensive Pedestrian Plan, which were developed by the Steering Committee, are as follows:



Goals and Objectives

- Increase “walkability” in the Town of West Jefferson
 - Increase and improve the pedestrian infrastructure
 - Provide aesthetically pleasing landscaping and resting places
 - Connect the pedestrian network to destination points
 - Promote a “walking culture” in West Jefferson
- Create a pedestrian network that is an important part of the urban structure
 - Encourage walking in the downtown areas of the Town
 - Provide attractive, safe pedestrian *connections* from the downtowns to outlying areas
 - Provide attractive, safe pedestrian *facilities* within the downtown area
 - Encourage alternative uses of sidewalk space (such as sidewalk sales or outdoor cafes) that promote a healthy, vibrant downtown
- Promote walking as a healthy exercise
 - Develop and/or participate in more healthy walking programs such as “Eat Smart, Move More North Carolina”, etc.
 - Partner with health and recreation providers to create walking programs and events
- Create a pedestrian environment that is friendly to all users including - seniors, disabled persons, and children
 - Provide ADA compliant sidewalks and curb ramps
 - Increase pedestrian safety with regard to traffic
 - Provide facilities for sitting/resting opportunities
- Improve connections between disparate parts of the Town
 - Provide pedestrian connections between downtown West Jefferson and downtown Jefferson
 - Promote neighborhood connectivity via a network of pedestrian facilities
 - Provide equitable access to the pedestrian network(s)
 - Provide pedestrian access to schools, shopping areas, and work places

A café is an alternative sidewalk use

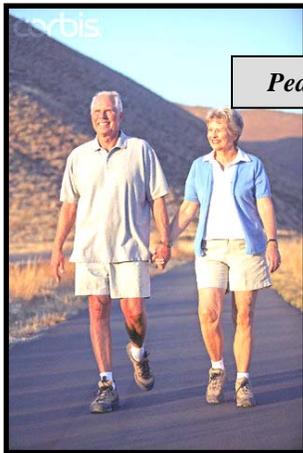




- Promote pedestrian safety
 - Promote pedestrian safety through educational programs both inside and outside the schools
 - Design a pedestrian network that can be safely traversed by all

1.3 HISTORY

Benefits of Walking



Pedestrian venues may vary

Walking is the oldest form of transportation known to mankind. For centuries, the pedestrian has been a constant presence in the human environment. Most individuals walk to some destination every day. The environment which facilitates walking is different for every pedestrian; it is as varied as urban settings within center cities – to - linear parks running along creeks. Pedestrian environments are created either by being deliberately planned; or, they can develop as a result of natural landscape characteristics, with no particular forethought of the pedestrian. To better understand what makes a pedestrian-friendly environment, it is necessary to study and analyze the places where people travel most comfortably as pedestrians. For instance, the addition of a

random sidewalk may not encourage people to walk; unless it connects pedestrians to places they want to go. This example reinforces the need for a pedestrian plan *prior* to the actual realization of it.

A walkable community needs connecting pedestrian corridors that are conveniently located in close proximity to homes, schools, entertainment/shopping meccas, and places of employment. A “walkable” community is defined by its ability to enhance the lives of all its citizens through a variety of measures, which include the following:

- Community Health
- Transportation Alternatives
- Environmental Benefits
- Safety
- Community Identity

Walking reduces health risk factors such as high blood pressure



Community Health

There are numerous benefits to be gained by walking - the most prevalent being the acquisition of healthier lifestyles. Unhealthy eating habits, which are primarily due to the increased consumption of fast food, continue to contribute to rising obesity rates in Americans of all ages. Walking is a preventive



measure for heart disease, cancer, diabetes, and mental health diseases. 'Walkable communities' encourage people to walk, - whether consciously or subconsciously; thereby, increasing physical activity and decreasing television or computer time (which promulgate sedentary lifestyles).

By providing accessible, inviting pedestrian facilities, the Town of West Jefferson can provide equal opportunities for everyone to improve health and prevent disease through routine or planned walking exercise(s). This, in turn, saves governments and local employers the money in health care costs and the lost productivity due to sick days that would otherwise have occurred.

Studies show that walking increases....

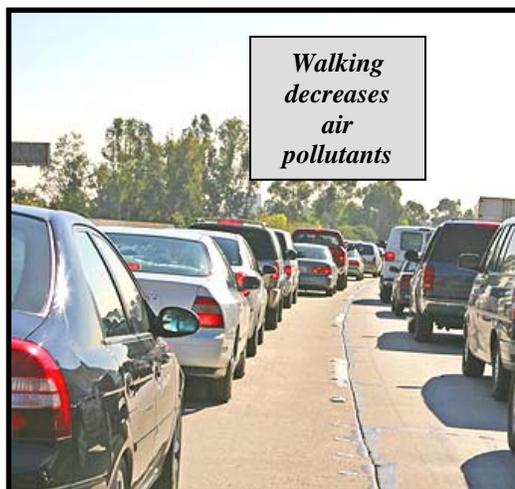
- Energy, stamina, and metabolism
- Wellness, fitness, and psychological well-being
- The reduction of risk factors (such as high blood pressure, anxiety, obesity, etc.), which contribute to coronary artery disease, some cancers, and other chronic diseases
- HDL – the 'good' cholesterol
- Muscle development and bone density

Transportation Alternatives

Walking also creates an alternative to vehicular transportation. Nationally, traffic congestion in urban areas is getting worse and the cost of owning/operating an automobile is rising astronomically. Pedestrian facilities are necessary to provide a means whereby people may choose to walk instead of drive; thus, reducing the number of vehicles on the road.

Walking is a cost-effective means of transportation. There are no fees, taxes, or licenses required as compared to the average annual cost of operating an automobile - which can easily exceed \$5,000 per year. Economically speaking, walking is - by far - the most affordable mode of transportation available to anyone.

For some segments of the population, walking is the *only* means of transportation available. This cross section of the community primarily includes people, whose incomes prohibit them from purchasing/maintaining automobiles, and senior citizens, who eventually become unable to drive. These members of our society rely heavily on walking in order to work, shop, exercise, and/or participate in other social activities.





Environmental Benefits

Walking is (not only) the most affordable mode of transportation, it also has the least negative impact on the environment. Choosing to walk to destinations as an alternative to using a vehicle will reduce air pollution. Improving air quality is a major concern across the United States. During the 1996 Olympics in Atlanta, Georgia; some Atlanta thoroughfares in the area were closed to vehicular traffic in order to relieve traffic congestion. During this period of time, the local, environmental air quality monitoring indicated a significant decrease in various air pollutants as when it was compared to periods of normal traffic flow. It is a well-known statistic that air pollutants will increase in direct proportion to the increased vehicular miles that are traveled each year in this country.

Walking, as opposed to driving vehicles, also positively impacts the availability and conservation of our natural resources. Reducing the consumption of petroleum (specifically in cars and asphalt) will be increasingly beneficial in the years to come. Although sensitive populations should *decrease* walking during ozone-active days, an overall *increase* in the amount of walking done on a regular basis could actually reduce mobile emissions/ozone. As more walking occurs, lesser emissions are produced; thus, creating a cyclic phenomenon, which is naturally and environmentally friendly.

Some pedestrian facilities (such as greenways) are often developed along rivers and streams. Often, these facilities create “buffers”, which separate drainage areas from new development; thereby improving the water quality for watersheds. As an added benefit, greenways help provide connectivity for wildlife habitats and natural ecosystems.

Safety

The walking community needs to be safe and comfortable. Any area, which seems dangerous or has obstacles, discourages people from walking; and consequently, the would-be walkers resort to other methods of transportation. Pedestrian routes need to be designed to minimize vehicular conflict by providing pathways which are safe and free of hazards. Safety is a major component in all phases of this Comprehensive Pedestrian Plan.

Police Departments typically teach pedestrian safety at schools



Community Identity

Pedestrian facilities are an important medium for maintaining and enhancing the public and social interaction of a community. The pedestrian experience should be aesthetically



inviting and elicit feelings of pleasure and comfort. Open spaces, parks, the downtown area, convenient retail, and other similar destinations - all enhance the pedestrian environment. In addition, the ideal pedestrian environment should possess amenities such as landscaping, benches, specialty paving, safety, and other elements that create a safe environment that pedestrians enjoy. The restoration or construction of new sidewalks is an important aspect in the West Jefferson community as sidewalks are often catalysts for walking, outdoor dining, window shopping, sitting areas (benches) for social interaction, business engagements, and tourism.

Planning Studies

Current planning studies include several on-going efforts by state and local entities, which were taken into consideration as the Comprehensive Pedestrian Plan for the Town of West Jefferson evolved. They are discussed in length in Section 3 and include, but are not limited to: the West Jefferson Bicycle and Pedestrian Planning Grant Initiative, the completion of the Jefferson Greenway, the Jefferson/West Jefferson Thoroughfare Plan, the Comprehensive Transportation Plan for Ashe County and the NCDOT Thoroughfare Plan for Ashe County, Jefferson, and West Jefferson. Other programs and/or initiatives that are currently underway or being planned involve resources from the Transportation Improvement Program (TIP) and various Safety & Education Programs.

Past and Current Municipal Efforts

Capital Improvement Program: Storm Sewer System and Streetscape Enhancements

In 2005, West Jefferson received a \$20,000 Business Redevelopment Planning Grant from the North Carolina Rural Economic Development Center. Part of this grant has produced a Storm Sewer System and Streetscape Enhancements capital improvement plan. The plan identifies the total cost (in 2005 dollars) for downtown storm sewer and streetscape enhancements at \$4.2 million. West Jefferson intends to implement the plan on an individual project basis. The first project is to enhance the storm sewer and streetscape along Main Street. Additional enhancements along Backstreet may occur in this first phase as funding allows.

NC State Landscape Architecture Students: Downtown Charrette

In 2002, local residents and businesses hosted students from North Carolina State University who came to West Jefferson to develop a conceptual streetscape design. Developing the conceptual design for downtown was a collaborative effort including participants such as local residents, business people, and property owners as well as the NC State Landscape Architecture students.

The conceptual plans attempted to address traffic flow and pedestrian movement throughout downtown West Jefferson. The design examined the needed infrastructure



improvements for traffic calming, and developed ideas that would enhance the overall pedestrian environment for the center of town. According to the Town of West Jefferson, plans are now underway to identify individual projects suggested in the streetscape plan.



High Country is in Blue Ridge Natural Heritage Area

Federal Initiative: Blue Ridge Natural Heritage Area, National Historic District Status

The West Jefferson community is included in the Blue Ridge Natural Heritage Area (BRNHA) designated by Congress and administered through the US Department of the Interior (USDOI). Enhancements for West Jefferson's downtown are included in the Ashe County plan for this Federal initiative.

The Town of West Jefferson is comprised of a National Historic District. The Town is proud of this designation. Downtown West Jefferson is the designated Historic District. There are tax incentives for voluntarily agreeing to Historic Restoration Guidelines.

North Carolina Small Towns Initiative: High Country Small Towns Cluster

In 2006 the North Carolina Rural Economic Development Center selected 20 applicants representing 32 small towns across the state to take part in its three-year N.C. Small Towns Economic Prosperity (NC STEP) demonstration program.

NC STEP program is part of the Center's Small Towns Initiative. The purpose of this initiative is to revitalize North Carolina towns of fewer than 10,000 residents that have faced economic distress.

West Jefferson and Todd (in Ashe County) were among Bakersville (Mitchell County) and Crossnore (Avery County) in the "High Country Small Towns Cluster".

Each demonstration site was eligible to receive \$20,000 in planning funds to develop its initiatives and will also be eligible to receive up to \$200,000 in grants to implement local projects

HandMade in America

The purpose of this effort was to provide an assessment of West Jefferson's business district and surrounding countryside, which will facilitate revitalization and managed growth that is community-based and retains the heritage, character, and quality of life in West Jefferson. The mission of HandMade in America is "to grow handmade



economies through craft, cultural heritage, and community assets” and the vision is one of “a thriving region that leverages the distinctive cultural assets of its people and the spirit of community”.

Strengths and deficiencies for the town were noted. The plan also acknowledged that West Jefferson “is rich in history, mountain culture, natural surroundings and people...” West Jefferson’s strengths include a well-trained community of workers; a diverse economic base that includes manufacturing, agriculture, art and crafts, education, retail and tourism; a distinctive downtown district; and access to some of the most outstanding natural areas in the Blue Ridge Mountains, including the oldest river in North America. The limited access to urban amenities and major highways has helped to preserve the small-town character that residents and visitors appreciate, but it has also limited local residents’ opportunities for development and economic growth. Town and County leaders have recently completed a tourism planning process, led by the Ashe County Chamber of Commerce and are pursuing other sustainable economic improvements that will help to preserve the feel of West Jefferson and the surrounding countryside.”



Town of West Jefferson is rich in cultural heritage and quality of life

The Resource Team structured their interviews, analysis, and recommendations to look at the downtown district, as well as the surrounding countryside. In addition to in-depth interviews of industry leaders, business owners, town leaders, residents, craftspeople and students, Resource Team members toured the area surrounding West Jefferson, including Mount Jefferson State Park, the New River, Jefferson Landing, Shatley Springs, and the adjoining Town of Jefferson. The Resource Team took the outstanding countryside into consideration and the recommendations contained in the report reflect the bigger picture that can be capitalized on by the community of West Jefferson. The following recommendations pertain to the development of a Comprehensive Pedestrian Master Plan.

West Jefferson Streetscape Charrette Project

The streetscape charrette project is a result of a partnership among Handmade in America, the West Jefferson Revitalization Committee, and the Town of West Jefferson.

Small Town Main Street

Downtown West Jefferson received the designation of a Small Town Main Street (STMS) Community. Businesses that locate in the Downtown area of West Jefferson are eligible for the Facade Grant Program.



1.4 SCOPE AND PURPOSE OF PLAN

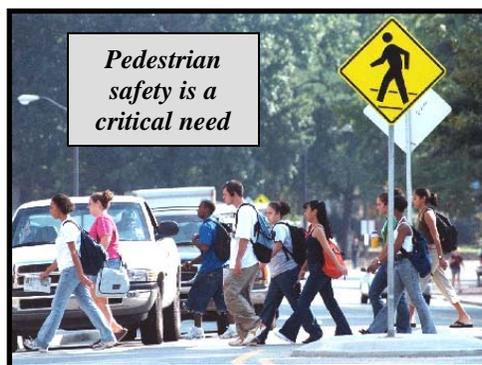
McGill Associates, P.A., was contracted by the Town of West Jefferson to prepare a Town-wide pedestrian plan as a guide for identifying and prioritizing safe pedestrian linkages; thereby, creating a viable pedestrian network. Many areas within the Town Limits lack sufficient pedestrian facilities. The Town recognizes the need to plan for the future by developing a pedestrian network, which provides connectivity for its users. Using a proactive approach (such as this) is imperative in establishing priorities for future pedestrian facilities, reducing construction costs, and implementing facilities in a logical manner.

The study area spans the Town of West Jefferson Town limits and the immediate, surrounding extraterritorial jurisdiction (ETJ). Although the research will be focused primarily within the Town limits, it is important to understand the existing pedestrian patterns into and out of West Jefferson and their destination points.

In order to comprehend the existing conditions, identify user needs, and recommend appropriate improvements in the pedestrian plan, the following processes were used:

1. **Inventory of the existing pedestrian system:** A sidewalk, greenway, and crosswalk inventory of the Town's pedestrian facilities was conducted - identifying existing safety issues.
2. **Assessment of the needs of the pedestrian:** The needs of pedestrians and their apparent lack of connectivity to destination points were identified and evaluated.
3. **Formulation of objectives and recommendations:** Guidelines for the future development of facilities, repair of existing facilities, and maintenance were created. Probable costs for all recommendations were provided.
4. **Implementation of improvements by action-oriented method:** Key pedestrian linkages and sidewalk needs were identified and prioritized. Possible funding sources for the Town to pursue were identified.
5. **Examination and possible revision of current policies/programs:** Guidelines and implementation of current policies and existing pedestrian programs were identified and addressed.

These components (above) provide justification for the proposed improvements. Also, any time that recommendations for improvements or new construction are made, these recommendations must be prioritized. Implementing all of the proposed





improvements in one (1) - or a short time frame would be overwhelming; it is important that the most immediate needs be recognized first as the implementation of capital improvements begins. In addition to facility needs, the formation of an implementation plan is an important short-term goal in establishing long-term objectives.

The highest priority pedestrian-facility needs to be prioritized are called the “critical” needs. Identifying the critical facility needs of the Town of West Jefferson means identifying improvements such as sidewalks and safety conditions. *The ‘safety of pedestrians’ is the most important component of the pedestrian facilities.* The damaged sidewalks, unmarked crosswalks, and inappropriate signage are extremely important entities that need to be addressed now.

Pedestrian facilities are the primary focus of this plan - in particular, sidewalks (located on Town streets and state roads) and pedestrian safety. In addition, off-street pedestrian facilities such as greenways and multi-purpose trails are examined. The West Jefferson Pedestrian Plan delineates the location, implementation, and maintenance of the proposed facility improvements; thereby, creating a pedestrian network that allows for connectivity within the Town as well as with neighboring communities.

The improvements recommended in this Pedestrian Plan are intended to be implemented over a period of time and will require creative funding mechanisms. Therefore, another significant short-term goal will be to identify improvement costs and funding opportunities, as well as prioritizing the improvements and projects.

- END OF SECTION -



SECTION TWO: EVALUATING CURRENT CONDITIONS

2.1 OVERVIEW

In Section 2, the existing pedestrian facility conditions in the Town of West Jefferson are inventoried and evaluated. To begin this process, information was gathered from a variety of sources, which included interviews, site analysis, a public questionnaire, community meetings, relevant planning documents and direction from the Project Oversight Committee and Town staff. The information gleaned from this initial research was later used to develop the final Town of West Jefferson Comprehensive Pedestrian Plan.

In general, a pedestrian-friendly environment indicates a strong and actively-involved community. Improving the walkability between destinations within West Jefferson would serve – not only to support walking as a safe and healthy alternative to driving – but would enhance the vitality of the entire community. In West Jefferson, it is estimated that 16.4% of the households do not own a personal vehicle.¹ This means that a viable pedestrian transportation network is *essential* to the economic and social welfare of a large population within the community. Functional pedestrian facilities strive for (but are not limited to) accommodating the characteristics discussed in Section 1, which were the following:

- (1) Healthy lifestyles
- (2) Alternative transportation
- (3) Reduction of environmental impacts
- (4) Safety
- (5) Community identity

The History of the Town of West Jefferson

West Jefferson was incorporated as a city in 1915 and it is the second-oldest incorporated town in Ashe County. For many decades West Jefferson was served by the Norfolk and Western Railroad, better known as the "Virginia Creeper". The railroad was the primary reason

The Norfolk and Western Railroad was known as the Virginia Creeper

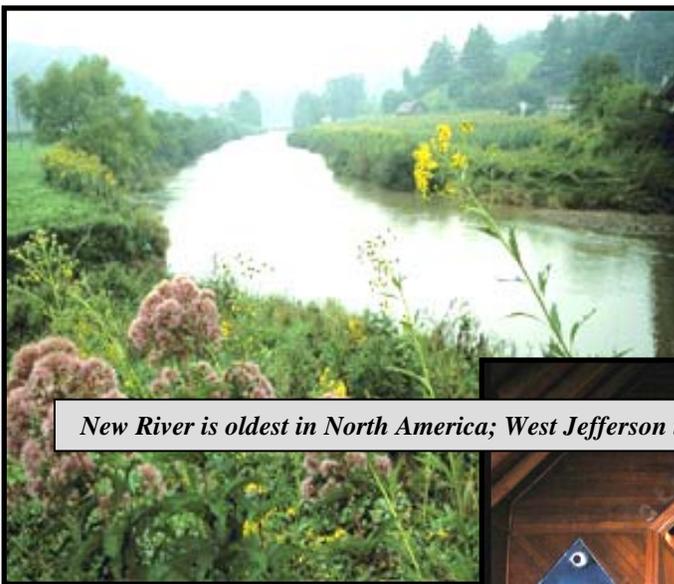


for the creation of the Town of West Jefferson. With the decline of the railroad business and the loss of textile factory jobs to foreign markets, West Jefferson's economy becomes increasingly



devoted to the tourism industry - one of the largest attractions being West Jefferson's arts district. Tourists can take the downtown walking tour to see eight (8) large wall murals depicting the area's history and unique mountain character. West Jefferson also has the distinction of having the only cheese factory in the state.

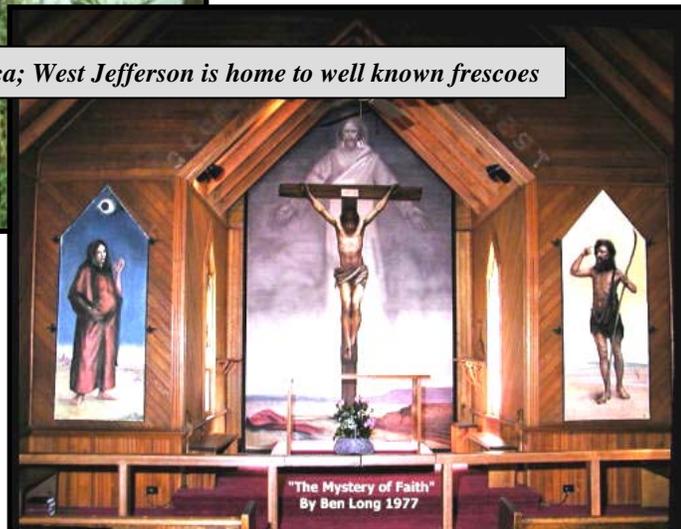
The Town's location in the Blue Ridge Mountains has led to a large number of tourists visiting the area each year; and consequently, many out-of-state tourists have begun to build vacation homes and housing developments around the Town. Recent economic growth has helped to increase the estimated median household income from \$24,479 in 2000 to \$30,547 in 2008. However, like many communities across the nation, the Town has been affected by the current economic down-turn.



Located near West Jefferson is the New River, which is one of the area's natural wonders. The New River is the second oldest river in the world and was designated as an American Heritage River by President Bill Clinton in 1998. West Jefferson is also a very

New River is oldest in North America; West Jefferson is home to well known frescoes

short drive to the famous life-sized frescoes created by world-famous artist Benjamin F. Long, IV. Of the nine (9) frescoes located on the Blue Ridge Trail, four (4) of the frescoes can be found in West Jefferson.



User Demographics/Current Usage

According to the United States Census bureau, the estimated population for the Town of West Jefferson in 2000 was 1,081 people. The North Carolina State Demographics Department estimated the 2008 population of West Jefferson at 1,199 people. This gives the Town of West Jefferson a population density of 619.2 individuals per square mile and a growth rate between 2000 and 2007 of 10.92%.



The 2000 Federal Census gives a breakdown of the population of West Jefferson according to the following age groups:

Age Distribution – Town of West Jefferson

AGE	WEST JEFFERSON	PERCENTAGE
Under 5 years	59	5.5
5 to 9	50	4.6
10 to 14	62	5.7
15 to 19	69	6.4
20 to 24	64	5.9
25 to 34	127	11.7
35 to 44	145	13.4
45 to 54	149	13.8
55 to 59	48	4.4
60 to 64	57	5.3
65 to 74	135	12.5
75 to 84	96	8.9
85 yrs. and over	20	1.9

Source: 2000 Federal Census: General Profile of Characteristic at <http://factfinder.census.gov>

The age breakdown of the Town of West Jefferson's population reflects the averages for the State of North Carolina. The adult population is the largest demographic for the City, with adults between the ages of 45 and 54 supplying 13.8% of the population. There is also a healthy population of children and young adults in the Town (39.8%). The senior population is slightly higher than the state average (60+ = 29%). Both the senior and youth populations often require alternate forms of transportation other than a personal motor vehicle.

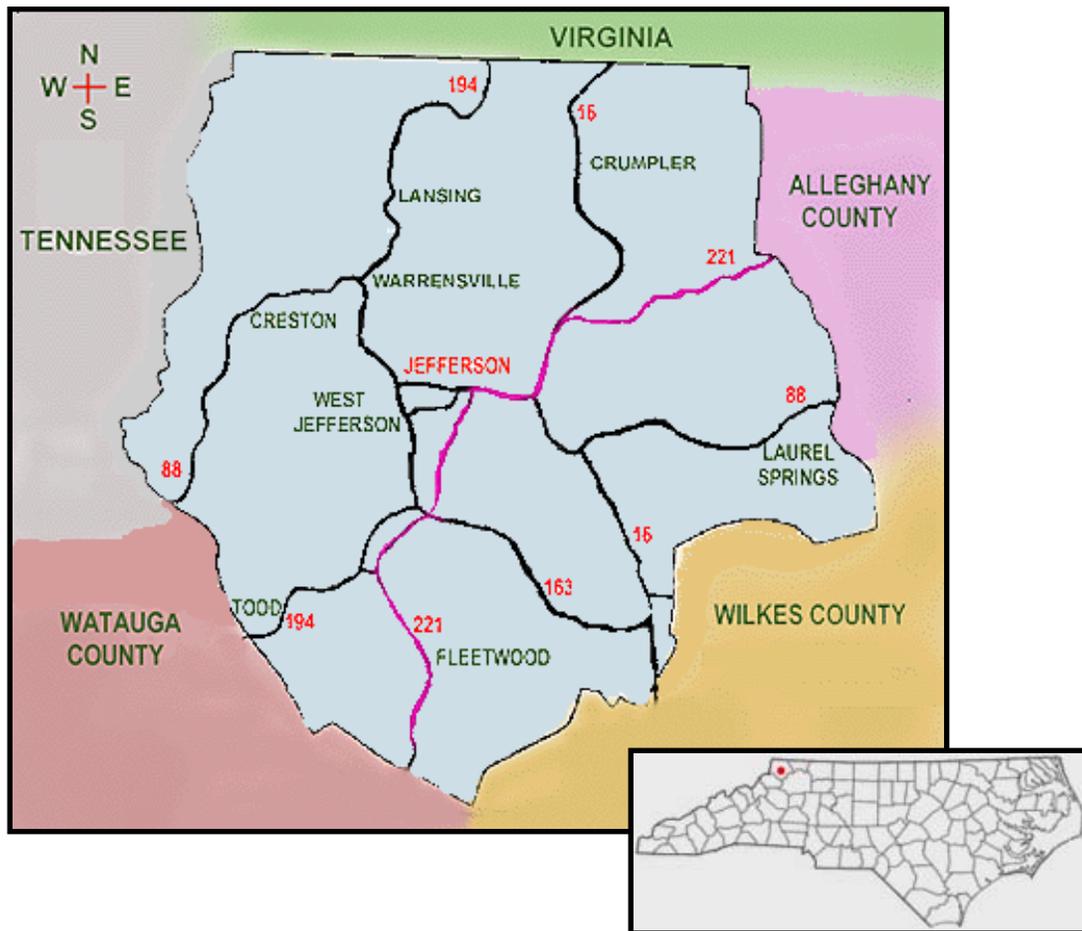
Physical Characteristics

The Town of West Jefferson is a true "mountain town" sited in the most northwestern part of the state in the Blue Ridge Mountains. Sitting at an elevation of 3,200 feet, the Town is located 15 miles from Appalachian State University, 10 miles from Boone, NC, and 3 miles from the Blue Ridge Parkway. West Jefferson is in Ashe County, which is known as the Fraser Fir Christmas Tree Capitol of America. West Jefferson, being a mountain town, is surrounded by mountains and has many beautiful views. The County of Ashe, where West Jefferson is located, borders both Tennessee and Virginia.





Town of West Jefferson – Geographic Location in County, State



2.2 LOCAL TRANSPORTATION NETWORK ASSESSMENT

Existing Transportation Network

Historically a railroad town, there are currently no active railway lines in West Jefferson. The Ashe County Airport is approximately 7 miles northeast of West Jefferson and provides recreational and corporate services.



Panoramic view from Mt. Jefferson State Park

The major form of vehicular transportation in West Jefferson and Ashe County is the private automobile. Highway 221 passes through West Jefferson and serves as a connection to Jefferson, the County Seat, to the north.

Recreational, off-road trails are located at Mt. Jefferson State park.



Ashe County Transportation Authority (ACTA)

The Ashe County Transportation Authority is based in West Jefferson. A Community Transportation Provider, sponsored by NCDOT/Public Transportation Division, ACTA provides services for all citizens of Ashe County that may need or choose transportation. The ACTA utilizes conversion and lift-equipped vehicles to provide Subscription Service, Demand Response Service, and General Public Service. They provide out-of-town transportation services (by appointment only) and contract services to various agencies in Ashe County. The ACTA operates a Deviated Fixed Route (meaning they do deviate from their regular route, when necessary); subsequently, this irregular service is known to the area as their Shuttle Route. Service is available on week days from 8:30 am to 5:30 pm and

on Saturdays. The typical route begins at Mt. Village Apartments in the ACTA office in West Jefferson. The route is comprised of a loop between the two towns - Jefferson and West Jefferson. Typical route stops include the Mountain Village Food Lion, Ashe County Inc., West View



Vehicles equipped for conversion; lift

from 9 am to 4 pm. The Shuttle Route is loop between the two towns - Jefferson and West Jefferson. Typical route stops include the Apartments, Roses, Memorial Hospital, Services for the Aging Terrace Apartments,

Lowes Foods, West Jefferson Main Street, Greystone Apartments, Spruce Hill Apartments, Lowes Hardware, and Wal-Mart. The cost for the Shuttle is \$1.00 per zone each time a person boards the vehicle. Regular general public fares vary - depending on which zone a person lives in. The ACTA has Ashe County divided into 16 different zones with zone 16 being the most remote. Zone 16 would cost the rider \$16.00 per round trip. Zone 1 is the Shuttle Route and begins and ends in West Jefferson. The ACTA offers trips to the Greensboro, Charlotte, and Johnson City airports. Non-emergency medical trips in and out of Ashe County can be scheduled.

Community Concerns, Needs, and Priorities

In order to ensure a successful study, it is vital that the public user of pedestrian facilities be able to share their issues, needs, and desires. The methodology used in establishing a Pedestrian Plan for municipalities should always include citizen input.

To better understand the needs of facility users, three (3) different methods were used to identify specific concerns/demands of Town residents. The different methods offer options to local citizens and present additional information that, otherwise, could not be assessed from just one (1) method. These methods



consisted of conducting Steering Committee discussions, pedestrian surveys, and Community Workshops.

Steering Committee Discussions

To act as a *guide* for the development of the Pedestrian Plan, a Steering Committee was formed during the initial planning process to establish a vision and identify the needs and priorities of pedestrians. The steering committee was composed of members from the Town staff, Town Council, NCDOT Representative(s), and the local citizens. The names of Steering Committee members can be found in the Acknowledgments at the beginning of this document. The Steering Committee acted as the principle advisory body to the pedestrian plan project. In addition, meetings were held to evaluate the planning process at various stages.

In addition to the Visioning Exercise, the Steering Committee members were divided up for small group discussions. Maps of the Town were given to each group along with colored dots and markers. The members were asked to check the maps for inaccuracies and to mark pedestrian destinations, areas where heavy pedestrian traffic occurred, and problem intersections and gaps in the pedestrian network. They were also asked to draw where they would like to see new sidewalks and greenways. The results of this exercise and those from the Community Workshop are recorded in the following paragraphs. Maps 5, 6, and 7 at the end of Section 2 illustrate the outcomes of these exercises.

Community Workshops



Community workshops were held during special events that would provide the public an opportunity to be involved in the pedestrian planning process. This also assured a good crowd from which to attract participants for the workshop exercises. Over 30 people participated in the initial pedestrian workshop; and 30 in the second.

1st workshop held during Summer Concert Series

People were invited to fill out a pedestrian survey and to participate in a mapping analysis exercise. A copy of the survey can be found in the Appendix. The map exercise was used to initiate discussions about existing pedestrian corridors, needed pedestrian facilities and dangerous conditions for pedestrians in West Jefferson. Map results are found at the end of Section 2.



The following areas were designated as having heavy pedestrian traffic:

- Ray Taylor Road (from Buck Mountain Road to Beaver Creek School Road)
- Jefferson Highway (through downtown to Ingles Grocery)
- Buck Mountain Road (from Ray Taylor Road to downtown)
- Backstreet from 2nd Street to Long Street
- 6th Street
- Hice Avenue
- Main Street from 6th Avenue to Church Street
- Church Avenue from 2nd Street to Long Street
- Ashe Street from S. Jefferson Avenue to the library

The consensus of opinion is that any path intersecting with US Highway 221, Mt. Jefferson Road, or Jefferson Avenue creates a dangerous intersection due to the speed and volume of vehicular traffic. There are traffic lights at some of these intersections; however, there are no pedestrian signals. In many cases, there are no marked crosswalks.

Other dangerous Intersections were identified as:

- Ray Taylor Road and Buck Mountain Road
- Buck Mountain Road and Locust Street

Other concerns included the sidewalks along Jefferson Avenue. Many sections of sidewalk along Jefferson Avenue are not clearly marked or are not available, which constitutes dangerous walking conditions along a busy roadway. The asphalt from some of the businesses located along the road does extend to the curb; but, in many places it is very rough and presents a tripping hazard. Currently, there is little or no way for pedestrians to safely walk from neighboring residential areas to the downtown area without taking the risk of walking on busy, heavily traveled, vehicular roads. There is also the opinion that there should be some kind of pedestrian connection from the Ingles Grocery Store area to the downtown area.



Mt. Jefferson Road was also cited as an important pedestrian route; however, it currently has no sidewalks available for residents and visitors.

This is an extremely busy retail area (directly adjacent to a residential area) and is also comprised of both the Ashe County Civic Center and Ashe County High School. Workshop participants strongly expressed their desire for a pedestrian sidewalk from the Ashe County Civic Center to Lowes Home Improvement along - either one (1) or both sides of Mt. Jefferson Road.



Community Workshop #2

The second community meeting took place August 13, 2010 during the “West Jefferson Gallery Crawl”. The “Crawl” is an evening of strolling among West Jefferson’s many art galleries – with refreshments, street entertainment, crafts, and drawings. Pedestrians participating in the Gallery Crawl as well as the general population were offered the opportunity to view maps showing the inventory of transportation/pedestrian facilities in West Jefferson. Proposed pedestrian facilities suggested by the public during the first community meeting were also shown on the maps. Participants were asked to review, comment, and share their ideas about the existing and proposed pedestrian facilities. Participants were also asked to fill out a survey to collect more detailed information regarding their pedestrian experience in West Jefferson and their suggestions for improving the system. A total of 30 people participated in either the map or survey (or both) exercises.



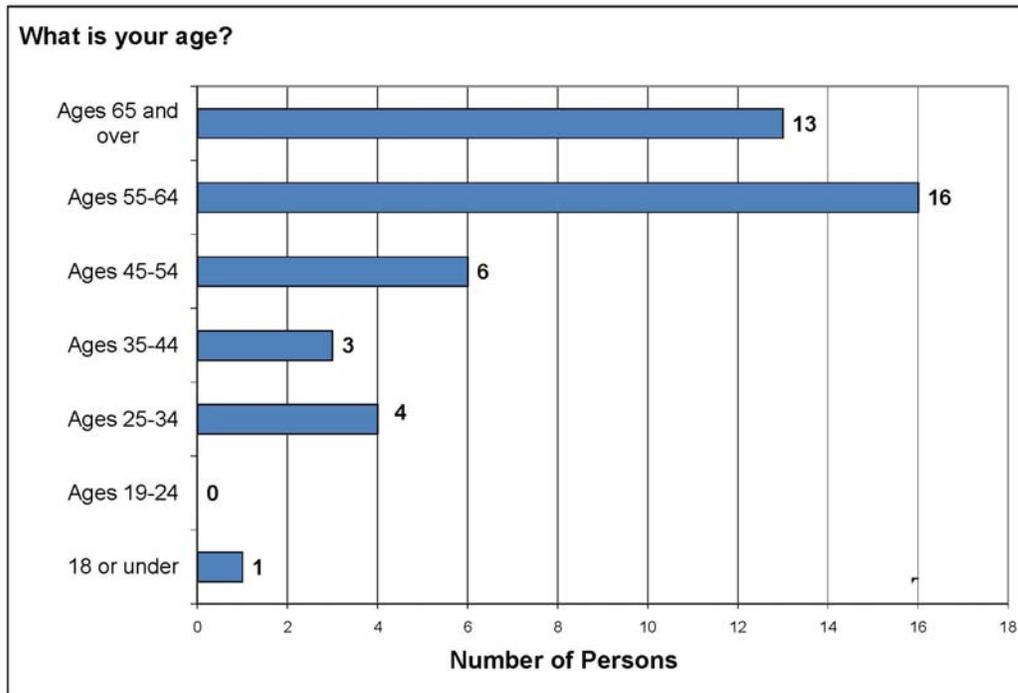
Nearly everyone who participated agreed with the previous results from the initial community meeting. One marked difference from the first community meeting was the interest in the proposed multi-purpose ‘greenway’ trails. The proposed greenway trails received a great deal of positive support. However, the participants of the second meeting wanted more extensive greenway trails. The predominant request was for a greenway trail along 221 from near Jefferson south towards South Jefferson Avenue.

Pedestrian Survey

To further solicit input from the public about the pedestrian system in West Jefferson, a public survey was conducted by means of “questionnaires”, which were made available to residents via Community Meetings, and by pick-up at the Town Hall. The pedestrian survey, which can be found in the Appendix, was designed to solicit opinions on both *general* and *specific* pedestrian concerns in the Town of West Jefferson. Fifty (50) people filled out the West Jefferson Pedestrian Survey. The survey questions and a summary analysis for each are as follows:



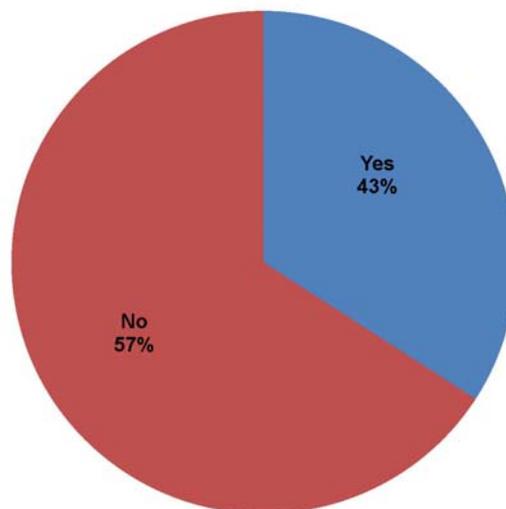
1. Age of participants:



The majority of respondents were between the ages of 55 and 64.

2. Resident / Non-Resident

Resident of Town of West Jefferson?

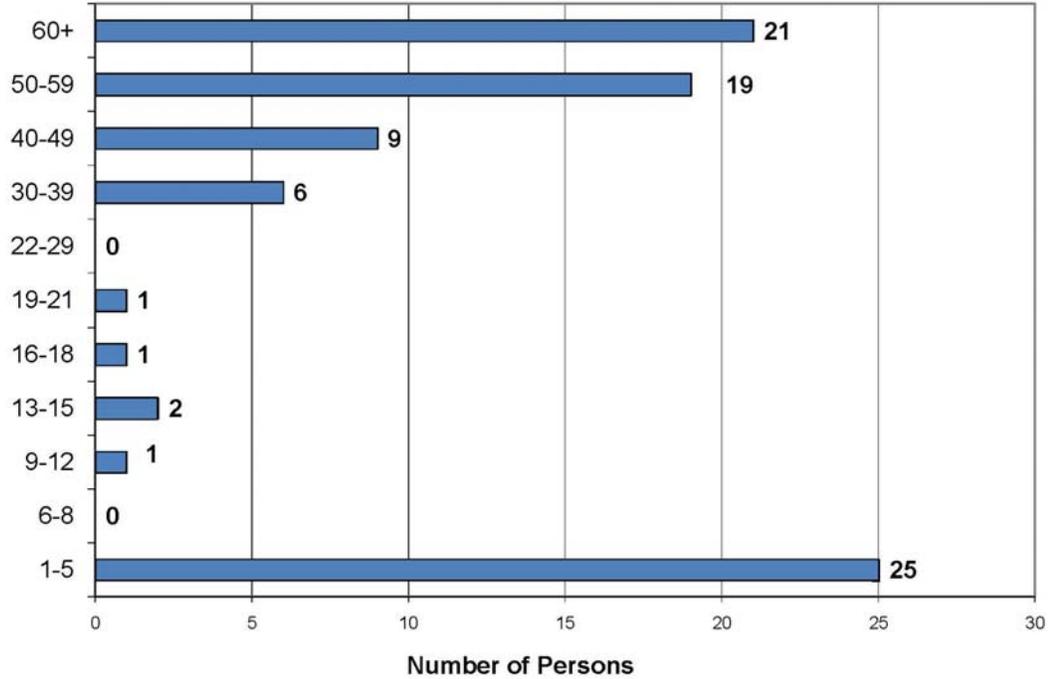


Survey respondents were mostly visitors from nearby communities. However, the resident respondents also made up a large portion of the total.



3. Survey respondent household ages:

List the number of persons in your household including yourself who are in the age brackets below:

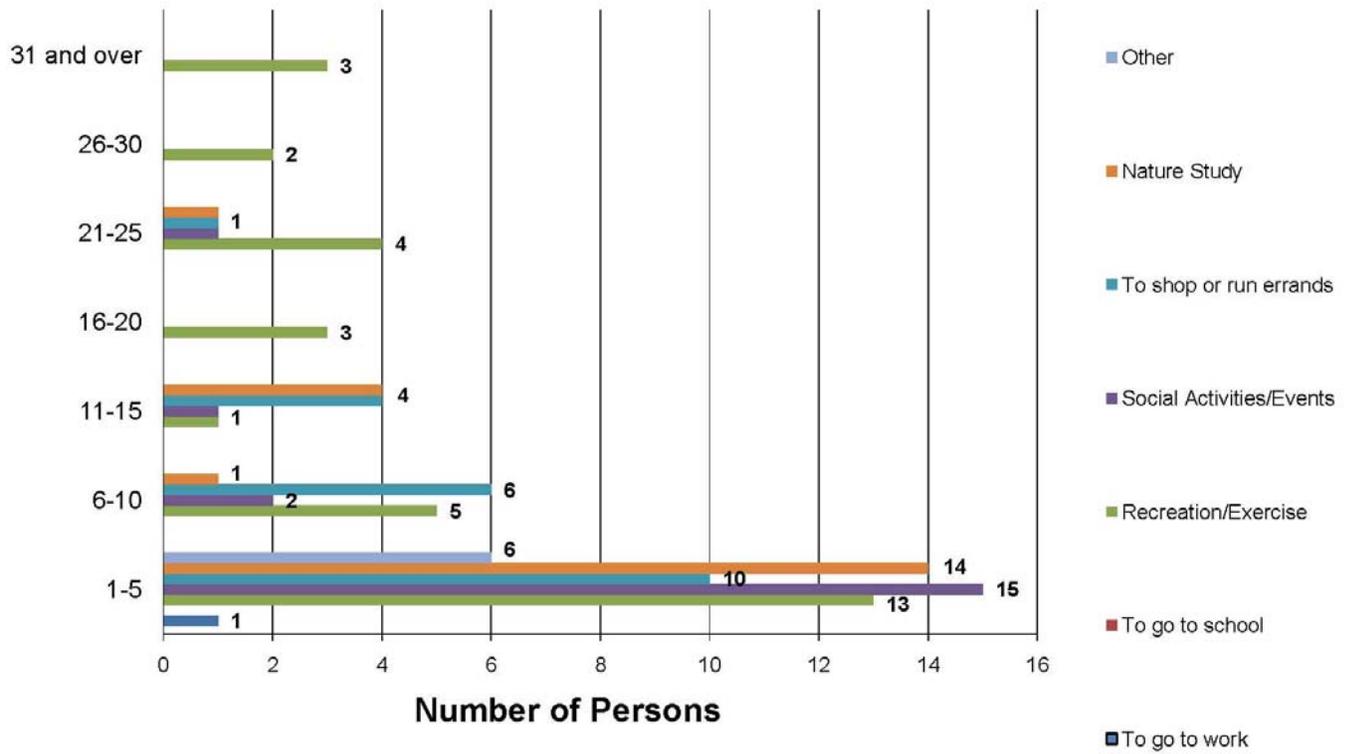


The majority of respondents to the survey were 60 years of age, or older.



4. Reason for walking trips:

How many times per month (on average) do you walk for the following purposes?



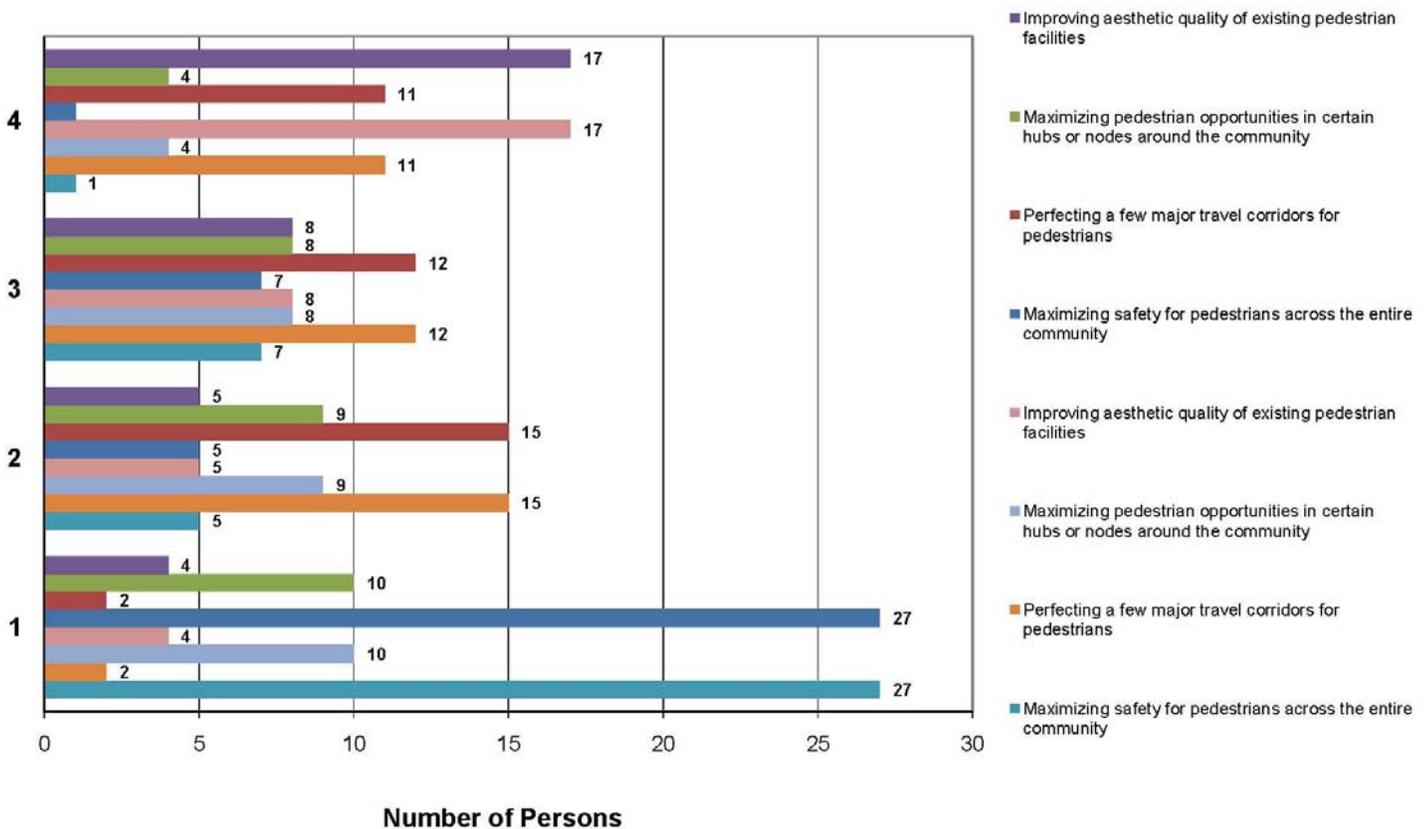
Most respondents walk for exercise or to get out of doors for fresh air.



5. Respondent goals:

Parks, trails, and greenways received the highest response count, followed by the downtown. Again, many people checked off answers without ranking them. These responses included many votes for the downtown, parks, trails and greenways, shopping and library/museum as popular walking destinations.

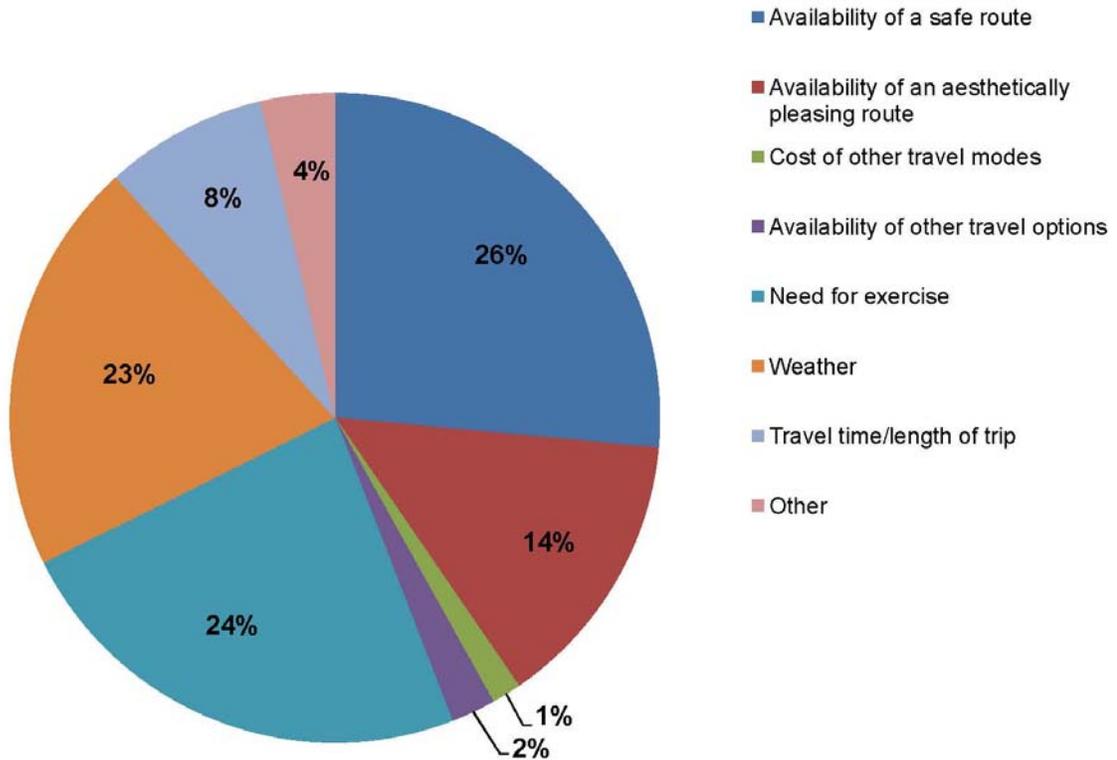
Please order the list according to the importance you place on each item with 1 being your highest priority. Please consider members of your household as well.





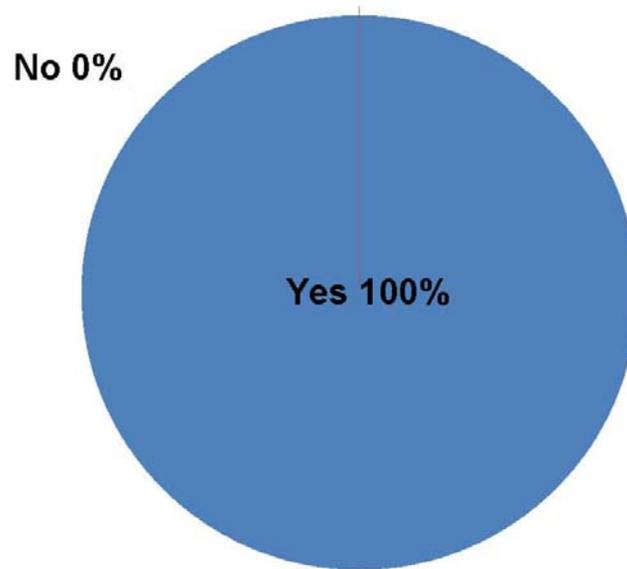
6. Important factors that influence respondents' decision to walk:

Which of the following factors play a role in whether or not you walk to a destination?



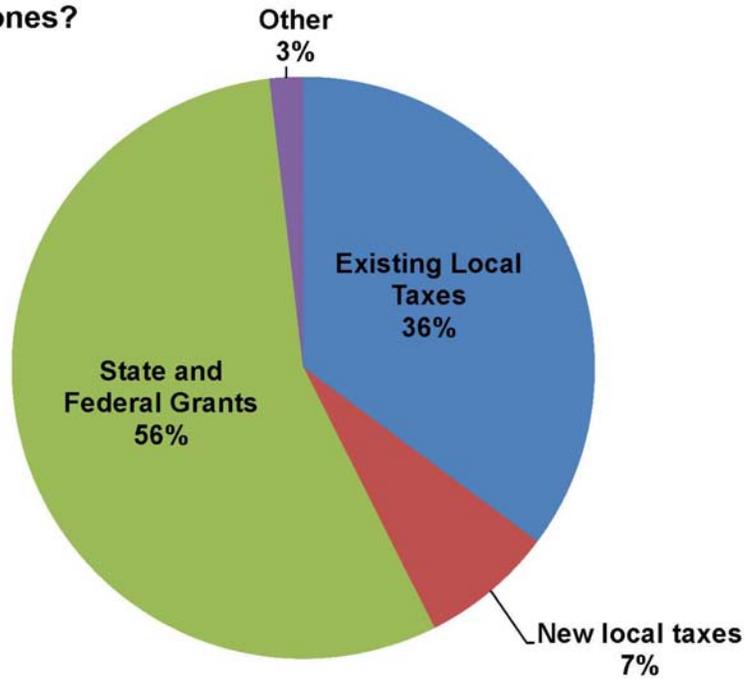


7. Respondent's opinion concerning pedestrian project funding:



8. Funding follow up:

If so, which ones?





Most respondents indicate that they are in favor of using state and federal grants. These excellent funding opportunities may be sought and are discussed in detail in Section 7.6. Some of the state and federal funding agencies are listed below:

State

- NCDOT Transportation Improvement Program
- NCDOT Enhancement Program
- NCDOT Governor's Highway Safety Program
- NCDOT Safe Routes to School Program
- NCDOT Powell Bill Program
- NC DENR Land and Water Conservation Fund
- NC DENR Ecosystem Enhancement Program
- NC Division of State Parks – Adopt-A-Trail Grant Program
- NC Division of State Parks – Recreational Trails Program
- NC Division of State Parks – Parks and Recreation Trust Fund
- NC Division of Forest Resources – Urban and Community Forestry Grants
- NC Division of Water Resources – Water Resources Development Grants
- NC Division of Commerce – Community Revitalization Grants
- North Carolina's Clean Water Management Trust Fund
- North Carolina Natural Heritage Trust Fund
- North Carolina Health and Wellness Trust Fund

Federal

- Community Development Block Grant Program
- Rivers, Trails, and Conservation Assistance Program
- Public Works and Economic Development Program

West Jefferson Crash Data

When pedestrian paths cross vehicular pathways there is always the possibility of collision, injury, and/or death. Though the number of pedestrian fatalities in the United States has fallen in the last 10 years, in 2007, 4654 pedestrians were killed in collisions with motor vehicles and 70,000 were injured. The category of pedestrians with the highest fatality rate is that of senior citizens. Most pedestrian vehicle injuries/fatalities occur away from intersections, at night, in good weather, and in urban areas.



Below is a chart highlights general vehicular crash data for Intersections in West Jefferson between 2004 and 2008.

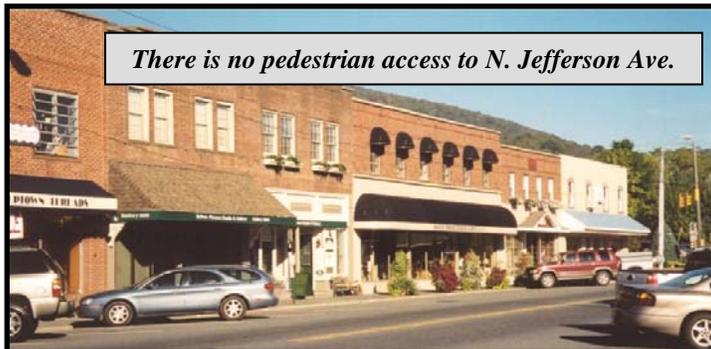
West Jefferson Intersections

NUMBER	CITY	LOCATION	CRASHES	CATEGORY
1	West Jefferson	US 221B at SR 1248	26	20 to 29
2	West Jefferson	US 221 at US 221B	12	10 to 19
3	West Jefferson	US 221B at Main	10	10 to 19
4	West Jefferson	US 221B at Ashmont	9	4 to 9
5	West Jefferson	US 221B at NC 194	8	4 to 9
6	West Jefferson	US 221B at SR 1134	7	4 to 9
7	West Jefferson	Main at Second	7	4 to 9
8	West Jefferson	US 221B at SR 1149	7	4 to 9
9	West Jefferson	SR 1149 at SR 1283	6	4 to 9
10	West Jefferson	US 221B at Market	6	4 to 9
11	West Jefferson	US 221B at Short	5	4 to 9
12	West Jefferson	SR 1149 at SR 1152	5	4 to 9

According to data provided by the Highway Safety Research Center (HSRC) at the University of North Carolina at Chapel Hill (UNC), with funding from North Carolina Governor's Highway Safety Program (GHSP), between 2001 and 2008, the state had recorded 12 pedestrian/vehicle accidents in West Jefferson with two fatalities occurring in 2008. (See Appendix for Ashe County Crash data)

2.3 ASSESSMENT OF THE PEDESTRIAN COMPATIBILITY OF THE LOCAL TRANSPORTATION SYSTEM

Pedestrian System Access



The pedestrian system in the Town of West Jefferson consists of a few formal sidewalks and some side-of-the-road foot paths worn from frequent use. Most of the sidewalks are in fair/poor condition - with short stretches that are going to require repair or replacement. There is no apparent network or system of sidewalks in place.



Instead, the majority of West Jefferson's sidewalks are located on Jefferson Avenue from just past Long Street to 2nd Street. Small sections of parking lots and driveways tend to provide *some* areas for walking along Jefferson Avenue. However, the absence of curb cuts or other ADA requirements make a hazardous path for pedestrians. There is rarely any connectivity between sidewalks and paths.

There are few existing safe pedestrian corridors within the Town of West Jefferson. The historic downtown areas have the best pedestrian system within the City. Unfortunately, there are very poor pedestrian connections to get to the downtown area.

Pedestrian access to downtown from the south at US Highway 221 and South Jefferson Avenue is non-existent. This growing area of the Town of West Jefferson serves as a residential and commercial hub as well as a gateway to the rest of Town for traffic heading north on US Business Highway 221.

Many pedestrian destinations in West Jefferson are not served by sidewalks at all. None of the schools in Town can be accessed by sidewalks. The majority of parks, including Backstreet Park and the Ashe County Farmer's Market cannot be accessed via sidewalks. Other than West Jefferson's downtown area, there are almost no pedestrian paths from residential neighborhoods into shopping districts. The only sidewalks in Town that lead to the sidewalks along Jefferson Avenue are on Main Street and Ashe Street, with one small stretch on the corner of State Street. Very few sidewalks lead to Jefferson Avenue despite the importance of this commercial strip. This very busy, two-lane artery is lined with restaurants, businesses, and stores; nonetheless, pedestrian facilities are few and incomplete. There are no sidewalks downtown that lead to the growing southern area of the Town.

According to the Town of West Jefferson Land Use Plan (Dec. 2008), there are **approximately 11,940 linear feet of sidewalk that make up the existing pedestrian network**. The plan shows 5,754 linear feet along Jefferson Avenue, 2,477 linear feet in Eastside Downtown, 1,062 linear feet for Business 221, and 2,650 for Western Downtown/Backstreet.



Walking Trip Characteristics

Walking trips are typically broken down into two (2) main categories: walking for recreation and walking to reach a destination. The Mt. Jefferson State Park offers dedicated recreational trails just out of Town. The park has many miles of hiking/walking trails available. The Ashe Adult Day and Child Development Center also provides a small amount of walking trails at its facility.



Traffic generators in West Jefferson include shopping areas, job sites, schools, parks, doctors' offices, and the hospital (see Existing Conditions Maps 1 & 2 on pages 24 and 25 of this section).

Recreational sites generating traffic include:

- **Mt. Jefferson State Park** – there are no sidewalks leading to the park.
- **Ashe County Library** – there are good sidewalks leading to the library.
- **Ashe County Farmer's Market** – the Farmer's Market is located in Downtown, but no sidewalks or other pedestrian facilities lead people there.
- **Backstreet Park** – adjacent to the Farmer's Market and Ashe Public Library, no sidewalks lead there.

Shopping destinations are scattered throughout the City, but the main retail areas that generate pedestrian traffic are:

- **Downtown West Jefferson** – Downtown West Jefferson has a mix of sidewalks along Jefferson Avenue, with the best and most complete paths between Long and 2nd Streets. There are few secondary sidewalk connections off of Jefferson Avenue.
- **The US Highway 221 corridor** – There are no sidewalks or bicycle lanes along this corridor.
- **Mt. Jefferson Road** (Wal-Mart, Lowes Home Improvement, Ashe County High School, Ashe Civic Center, etc.) – There are no sidewalks accessing this busy civic/retail area. The right-of-way along Mt. Jefferson Road is wide enough to accommodate sidewalks.
- **Peoples Drug Store on US Business Highway 221** – Sidewalk access along this path starts at Jefferson Avenue and heads east toward Jefferson along 2nd Street. The paved portion of this path ends short of the popular People's Drug Store, at the junction of 2nd Street and US Business Highway 221. Broken (and often hazardous) parking lot pavement provides the footing for the next stretch of the route. A visible and well worn foot path continues from Dogget Road northeast along US Business Highway 221 toward the Town of Jefferson.

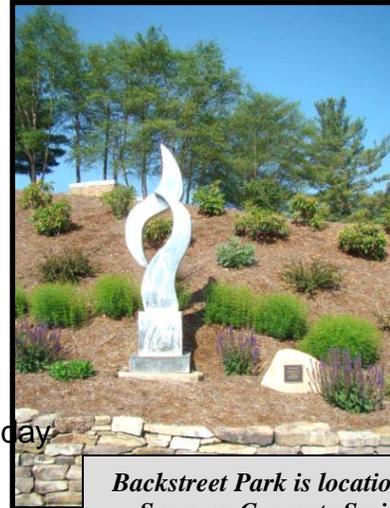
There are several intersections in the Town of West Jefferson that have been deemed dangerous because of the volume and speed of vehicular traffic. The intersections most often cited are those that intersect with Jefferson Highway/Business Highway 221.

None of these intersections have pedestrian signals or crosswalks. Jefferson Avenue effectively divides the Town of West Jefferson in half; and, people are somewhat hesitant to cross the highway because of high volumes of vehicular traffic and lane width.



Roadways pose a major barrier for pedestrians trying to walk from one point to another. According to NCDOT, the roadways with the highest volumes in the Town of West Jefferson include:

- **US Highway 221** – 10,000 to 15,000 vehicles per day (Largest barrier for pedestrians in West Jefferson.)
- **North Jefferson Avenue** – 2,000 to 7,000 vehicles per day
- **South Jefferson Avenue** – 2,000 to 7,000 vehicles per day
- **Mt. Jefferson Road** – 1,500 to 6,000 vehicles per day
- **Beaver Creek School Road** - 1,000 - 6,000 vehicles per day
- **Main Street** – 1,000 to 4,000 vehicles per day
- **Ray Taylor Road** - 1,000 to 3,000 vehicles per day
- **Buck Mountain Road** – 800 to 1,500 vehicles per day
- **Speaks Road** - 100 to 700 vehicles per day



Backstreet Park is location of Summer Concerts Series

To create a pedestrian-friendly transportation system in the Town of West Jefferson, existing pedestrian corridors will have to be strengthened by filling in gaps, repairing existing facilities, and providing safe and efficient paths across major vehicular corridors. Additional pedestrian corridors need to be provided to connect major portions of the Town (east to west and north to south) and to serve as neighborhood connectors. New connectors need to be provided to reach important destinations, especially the public schools, parks, and popular commercial areas.

2.4 INVENTORY AND ASSESSMENT OF EXISTING PEDESTRIAN FACILITIES



The Town of West Jefferson is committed to improving the opportunities for pedestrian transportation. Along with McGill Associates, P.A., the Town of West Jefferson Steering Committee conducted an inventory of pedestrian facilities. This inventory delineates the location(s) of existing sidewalks and their

Utility poles, trash receptacles create pedestrian barriers

condition(s) as well - shown on *Map 1*



(North) and Map 2 (South): Existing Pedestrian Facilities found at the end of this section. This inventory includes the condition of sidewalks, crosswalk needs, existing barriers, and intersections that require curb ramps. The inventory was developed to identify needed linkages that would improve connectivity and to assess both the condition of facilities and ADA compliance.

In addition to the visual survey, interviews were conducted with appropriate staff and agencies within the Town government. These interviews were designed to solicit information from knowledgeable staff about departmental issues and concerns with the existing pedestrian network and how it currently serves the needs of the citizens of West Jefferson.

Visual Survey Results

Sidewalks

The locations and conditions of existing sidewalks are shown on Maps 1 and 2 at the end of this Section. Existing sidewalks in the pedestrian network were rated as good, fair, or poor.

- Good – overall good, usable condition. Sidewalks must be at least four feet wide. A few minor cracks, small amount of spalling, and/or discoloration is acceptable.
- Fair – usable condition. Any sidewalk less than four feet in width, moderate number of cracks, minor settling or uplifting, spalling, and/or intrusive vegetation.
- Poor – dangerous or unusable sidewalks. Major cracks and breakage, major uplifting or settling, crushed concrete, missing segments, and/or excessive vegetation intrusion.

Overall, the existing sidewalks in West Jefferson are in *fair* condition. The major issues for the overall sidewalk system are:

- Age: Many of the sidewalks in West Jefferson are advanced in age. These require constant monitoring to repair problems as they occur.
- Gaps: The main pedestrian path in West Jefferson is along North Jefferson Avenue/South Jefferson Avenue. Understandably, this



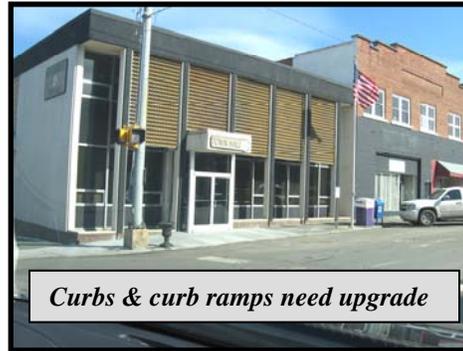


corridor has the most paved sidewalk in Town - as it runs directly through the middle of Town. However, much of its path is along the sides of the road and through parking lots.

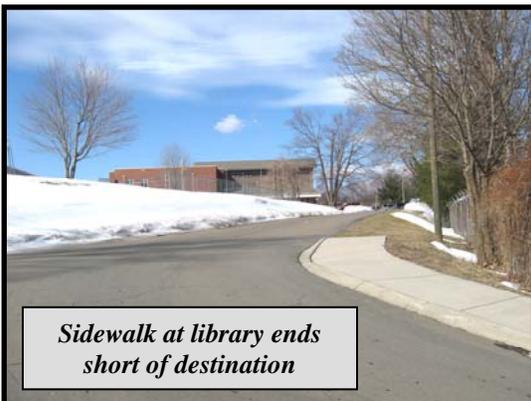
- Lack of sidewalks: Many of the streets in town lack sidewalks of any kind or condition. One such notable pathway is along US Business Highway 221 from the Town of West Jefferson to the Town of Jefferson.
- Lack of Connectors: There are often few if any connectors between destinations such as parks, business areas, shopping and other destinations.
- Debris: Some sidewalks were obstructed by cars parked improperly. This is a parking enforcement issue.
- Poor repair: Many of the existing sidewalks in town needed repairs to cracks and up to code curb ramps.

Downtown Sidewalks

Downtown West Jefferson has a system of sidewalks, including a recently-installed sidewalk on Ashe Street from Jefferson Avenue to near the Ashe County Public Library and along the Presbyterian Church to Regar's parking lot. Although the sidewalk is



in good condition, it stops about 150 yards from the library forcing walkers to walk on the street with the traffic. Handicapped pedestrians in wheelchairs have no option but to turn around, go back to where they can get off of the sidewalk, and then navigate along the street with the automobiles. The majority of the existing downtown sidewalks are in *fair* condition. There are areas where the sidewalks are cracked or have other safety issues (such as lifting, obstacles, etc.). These obstacles - though small - can create safety hazards, especially for people using walkers or wheelchairs. The greatest hindrance for pedestrians in Town is the lack of safe sidewalks and/or trails between popular, local destinations.



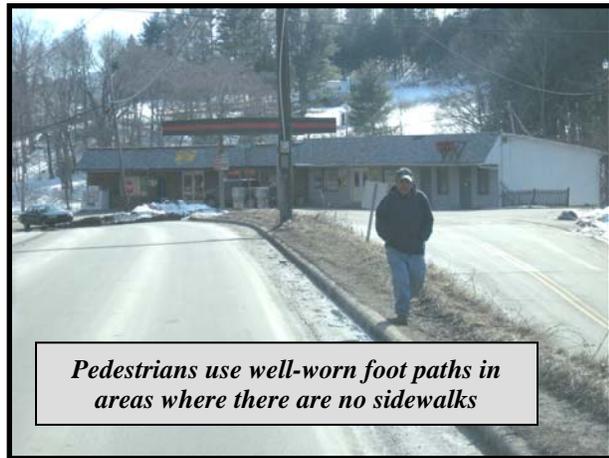
The sidewalks along the North Jefferson Avenue - South Jefferson Avenue corridor "end" just before Long Street heading south; and, at 2nd Street to the north. The remaining path continues along available paved areas, which are hazardous for pedestrian use but, nevertheless, are still being used by people. Most of these paved areas are parking lots that are



covered in asphalt, but do not have a pedestrian path marked off. The lack of a marked pedestrian path can lead to increased risks of pedestrian/vehicular conflicts. Also, the absence of curb ramps at these areas prevents ADA compliance – thus, prohibiting elderly and disabled pedestrians from continuing through the corridor.

Other areas in the downtown that do not have sidewalks include the side streets off of Jefferson Avenue such as Backstreet, which has two major pedestrian generators (Ashe County Farmer's Market and Backstreet park). The sidewalks on Main Street are in fair condition but in need of maintenance. The Main Street sidewalks get a lot of pedestrian traffic heading east. These sidewalks stop at School Avenue.

The sidewalks along 2nd Street also see regular pedestrian traffic heading north towards Jefferson. These sidewalks are in fair condition but “end” before reaching US Business Highway 221. At US Business Highway 221 and Doggett Road, pedestrians are forced to walk along the shoulder of the road. At places such as this, well-worn foot paths (as seen here) have been formed over time by pedestrians.



Pedestrian Intersections

There are several busy intersections in the downtown area that must be traversed by pedestrians. Main Street is the only existing street that has a signalized crosswalk; however, it does not have visible crossing stripes. In addition, pedestrians are crossing a number of other intersections downtown - without any kind of pedestrian accommodations.

Crosswalk and signal needs are also shown on Maps 1 & 2 at the end of this section. There are many intersections that require pedestrian signals, crosswalks, areas of refuge, or a combination of these needs in order to protect pedestrians as they navigate across vehicular traffic.



Needed Crosswalks

- Jefferson Avenue and Main Street
- Jefferson Avenue and 2nd Street



- Jefferson Avenue and State Street
- Jefferson Avenue and Ashe Street
- Jefferson Avenue and Hice Avenue
- Jefferson Avenue and Buck Mountain Road
- Jefferson Avenue and Beaver Creek School Road
- Jefferson Avenue and US Highway 221
- Main Street and School Avenue
- Main Street and 2nd Avenue
- Mt. Jefferson Road and Campus Drive

Barriers

In addition to the sidewalks and curb ramps, the inventory shown on Maps 1 & 2 designates possible ADA noncompliant sidewalks and sidewalk obstacles/barriers. Barriers consist of objects located on sidewalks which prevent a safe lateral clearance. Typical sidewalk barriers include utility poles, traffic signs, fire hydrants, and intrusive vegetation.

The biggest barrier within the pedestrian system in the downtown area is the absence of crosswalks and pedestrian paths to destinations off of the North Jefferson Avenue/South Jefferson Avenue corridor. Also, there are no pedestrian facilities along Mt. Jefferson Road. There are no tactile warning devices for visually-challenged pedestrians at *any* intersection in the Town of West Jefferson.

Other potential barriers for pedestrian traffic in West Jefferson include utility poles, trash containers, benches, planters, traffic signs, poles, and/or boxes. In the Town of West Jefferson, most of these objects have been placed either up against a building or by the curb, which keeps them out of the pedestrian pathway. This is not the case on some of the more narrow sidewalks.

Downtown West Jefferson Pedestrian Inventory Maps

Following are Comprehensive Pedestrian Plan Inventories, which exhibit existing facilities in the northern and southern regions of downtown West Jefferson. Also, General Comments from Workshops One (1) and Two (1) are collected on one of the inventory maps.

¹Census 2000, selected Housing Characteristics, West Jefferson, North Carolina.
<http://www.Factfinder.Census.gov> (2010 census data not yet available)

- END OF SECTION (After Maps) -

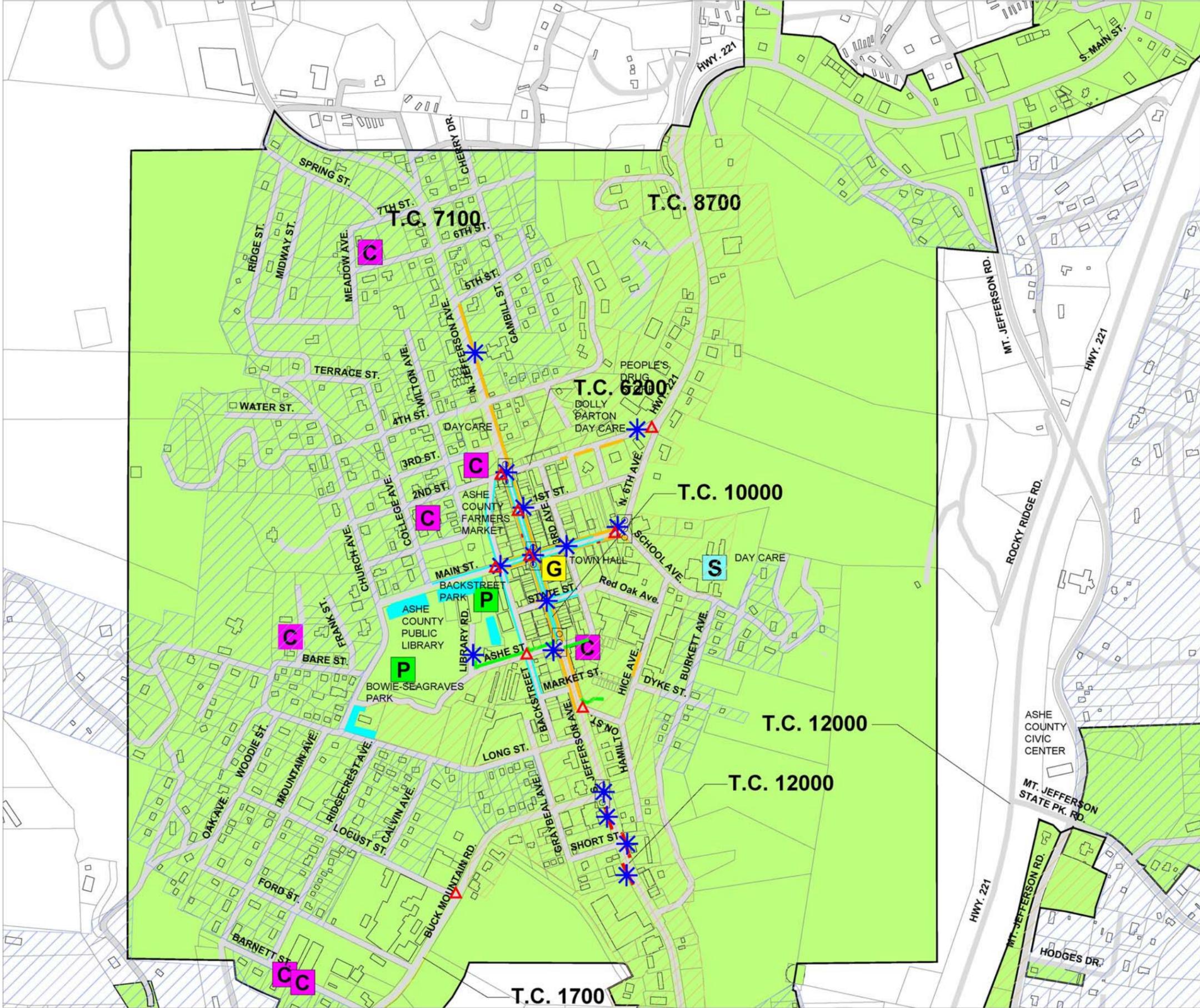
Town of West Jefferson

Comprehensive Pedestrian Plan

Inventory - Existing Conditions

NORTH

Map 1



Legend

- West Jefferson Town Limits
- West Jefferson Extra Territorial Jurisdiction
- Streets
- Existing Sidewalk Good Condition
- Existing Sidewalk Fair Condition
- Existing Sidewalk Poor Condition
- Existing Trail
- Problem Area (Sidewalk Ends, No Curb Cut, ADA issue, Etc.)
- Crosswalk Issue (Needed, needs maintenance, etc.)
- Church/Cultural
- School
- Government Facility
- Park
- Existing Traffic Signal
- Residential
- Retail
- Public Parking

T.C. = Traffic Count



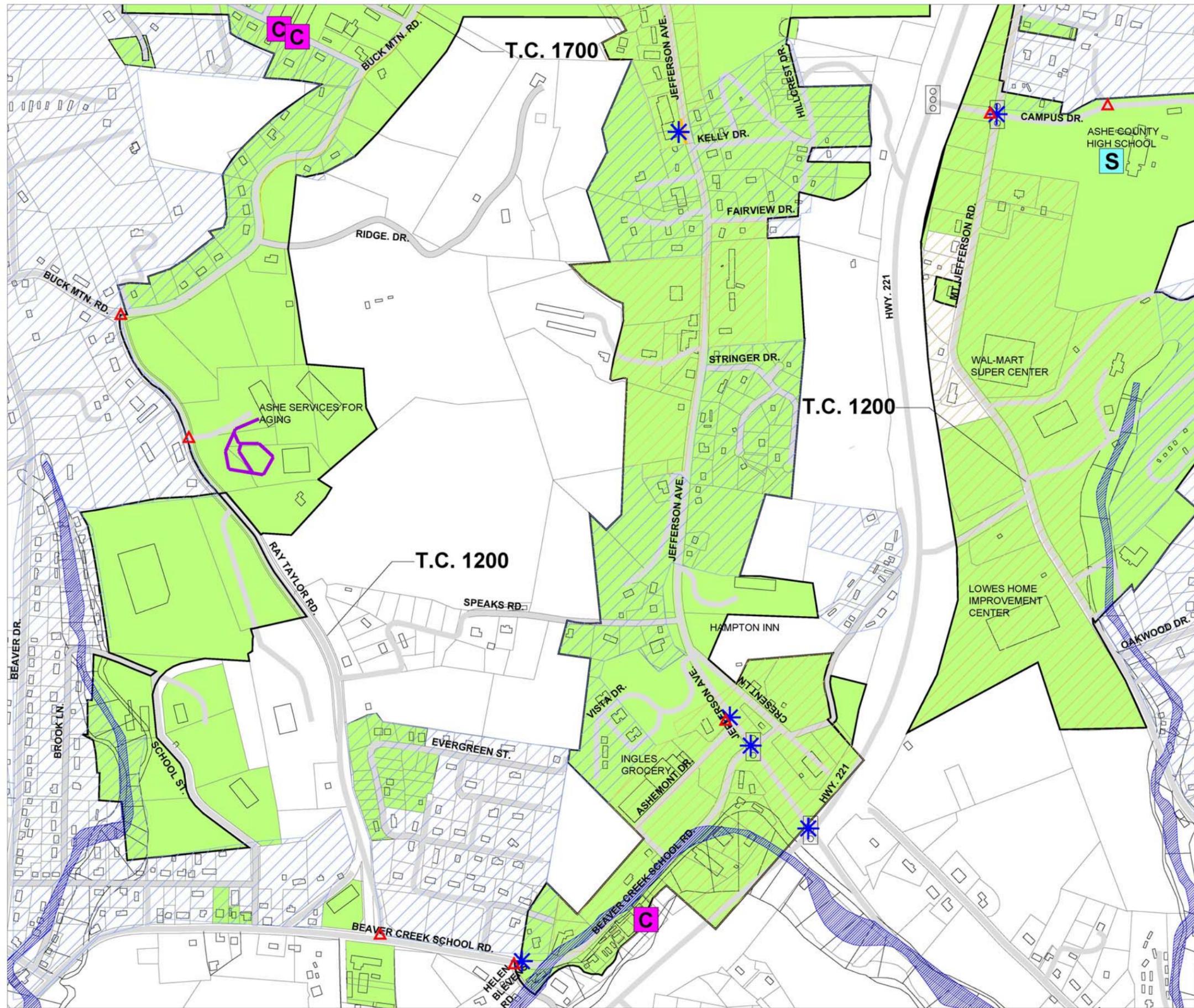
Town of West Jefferson

Comprehensive Pedestrian Plan

Inventory - Existing Conditions

SOUTH

Map 2



Legend

- West Jefferson Town Limits
- West Jefferson Extra Territorial Jurisdiction
- Streets
- Existing Sidewalk Good Condition
- Existing Sidewalk Fair Condition
- Existing Sidewalk Poor Condition
- Existing Trail
- Problem Area (Sidewalk Ends, No Curb Cut, ADA issue, Etc.)
- Crosswalk Issue (Needed, needs maintenance, etc.)
- Church/Cultural
- School
- Government Facility
- Park
- Existing Traffic Signal
- Residential
- Retail

T.C. = Traffic Count



Town of West Jefferson

Comprehensive Pedestrian Plan
Community Workshops 1 & 2
(6-25-2010 & 8-13-2010)
GENERAL COMMENTS

Map 5

Legend

- West Jefferson Town Limits
- West Jefferson Extra Territorial Jurisdiction
- Streets
- Existing Sidewalk Good Condition
- Existing Sidewalk Fair Condition
- Existing Sidewalk Poor Condition
- Existing Trail
- Church/Cultural
- School
- Government Facility
- Park
- Existing Traffic Signal
- Residential
- Retail
- Dangerous Intersection
- Needs Crosswalk
- Problem Area (Sidewalk Ends, No Curb Cuts, ADA Issues, Etc.)
- T.C. = Traffic Count

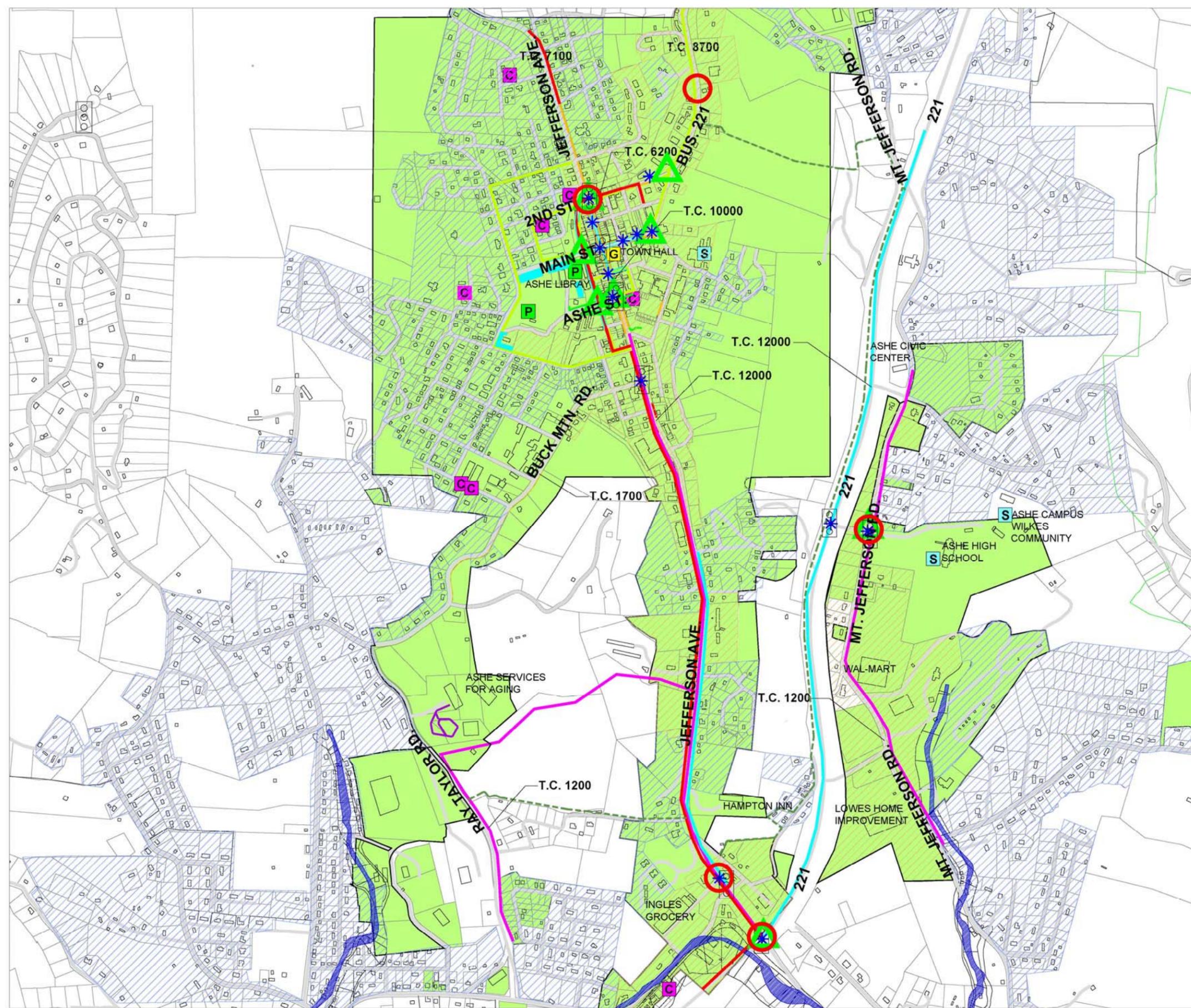


MAP NOT TO SCALE



Town of West Jefferson

Comprehensive Pedestrian Plan
Steering Committee
Workshops #1 & #2
GENERAL COMMENTS
Map 6



Legend

- West Jefferson Town Limits
- West Jefferson Extra Territorial Jurisdiction
- Streets
- Existing Sidewalk Good Condition
- Existing Sidewalk Fair Condition
- Existing Sidewalk Poor Condition
- Existing Trail
- Church/Cultural
- School
- Government Facility
- Park
- Existing Traffic Signal
- Residential
- Retail
- Public Parking

Problem area/ Area of Interest identified by Steering Committee Members

- Steering Committee Group 1 Sidewalk/Pedestrian Needs
- Steering Committee Group 2 Sidewalk/Pedestrian Needs
- Steering Committee Group 3 Sidewalk/Pedestrian Needs
- Steering Committee Group 4 Sidewalk/Pedestrian Needs
- Dangerous Intersection
- Needs Crosswalk
- Problem Area (Sidewalk Ends, No Curb Cuts, ADA Issues, Etc.)

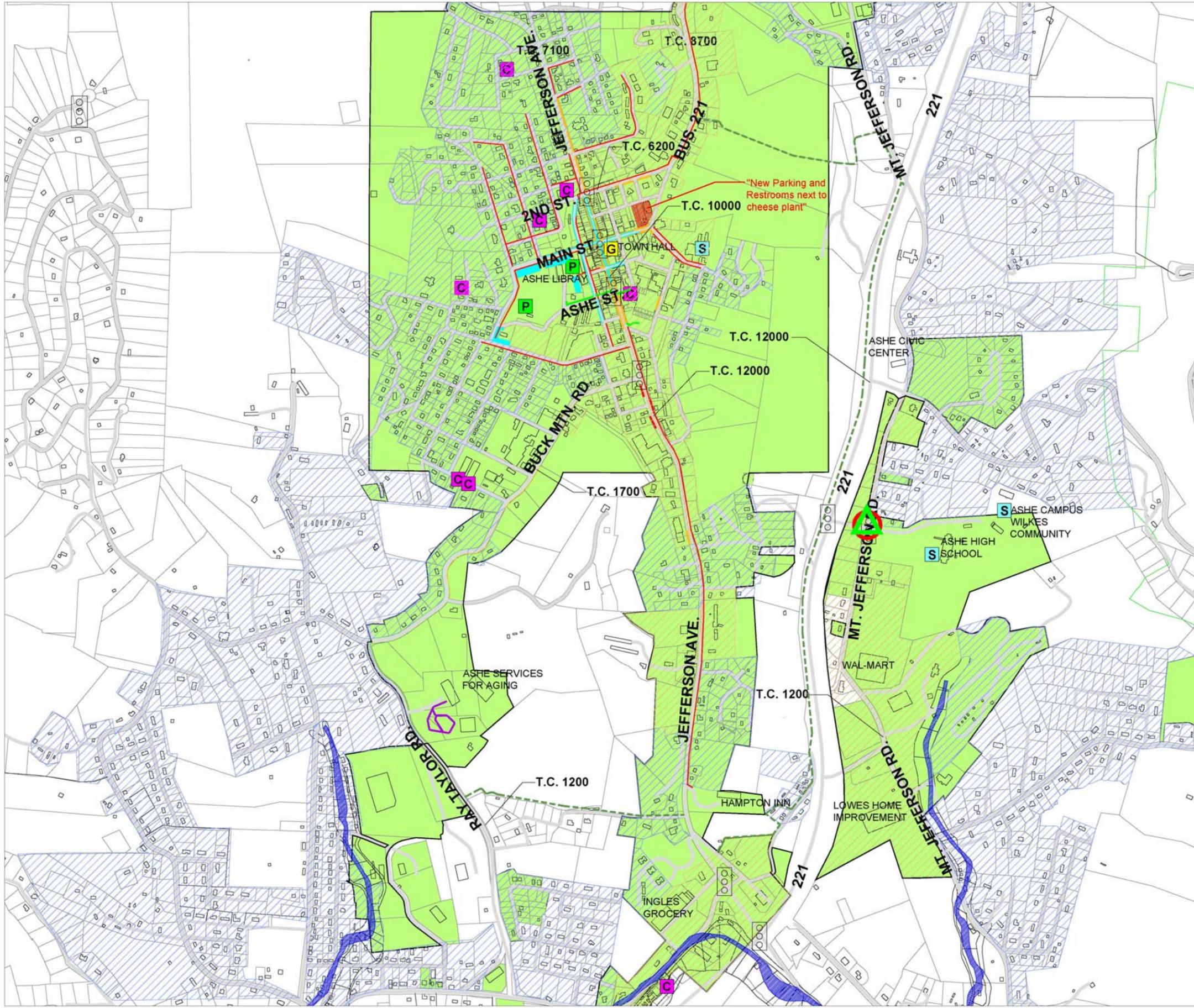
T.C. = Traffic Count



MAP NOT TO SCALE

Town of West Jefferson

Comprehensive Pedestrian Plan Small Business Group Workshop #1 GENERAL COMMENTS Map 7



Legend

- West Jefferson Town Limits
- West Jefferson Extra Territorial Jurisdiction
- Streets
- Existing Sidewalk Good Condition
- Existing Sidewalk Fair Condition
- Existing Sidewalk Poor Condition
- Existing Trail
- Church/Cultural
- School
- Government Facility
- Park
- Existing Traffic Signal
- Residential
- Retail
- Public Parking

Problem area/ Area of Interest identified by Local Area Business Committee Members

- Group determined areas of sidewalk need
- Dangerous Intersection
- Needs Crosswalk
- Problem Area (Sidewalk Ends, No Curb Cuts, ADA Issues, Etc.)

T.C. = Traffic Count





SECTION THREE: EXISTING PLANS, PROGRAMS, AND POLICIES

Numerous planning documents and recommendations have previously been prepared relating to issues addressing current and future pedestrian facilities for the Town of West Jefferson. Such reports and documents are important efforts and need to be addressed and incorporated into this pedestrian plan. Many of these planning documents, which address greenways, transportation, public transportation, capital improvements, and land-use planning, provide valuable insight and background toward future decisions, which will be made for the Town. This section contains an outline of the key documents and studies, which already exist, and have been reviewed in their entirety.

3.1 LOCAL, REGIONAL, AND STATE PLANS AND GUIDELINES

Transportation Plans



West Jefferson received NCDOT DBPT grant in 2008

The Bicycle and Pedestrian Planning Grant Initiative

The Division of Bicycle and Pedestrian Transportation has coordinated its planning efforts with the Transportation Improvement

Program in the integrating of bicycle and pedestrian improvements. DBPT developed *The Bicycle and Pedestrian Planning Grant Initiative* in 2004 as a means of providing financial assistance to local municipalities in developing comprehensive bicycle and pedestrian transportation. In 2008, the Town of West Jefferson was awarded a grant by NCDOT to develop a Comprehensive Pedestrian Plan. This grant program was developed by the DBPT and the Statewide Planning Branch (SWP) – now known as the Transportation Planning Branch (TPB) - as a means of encouraging the development of comprehensive pedestrian plans.

Comprehensive Transportation Plan

Comprehensive Transportation Plans (CTPs) are created by the NCDOT Transportation Planning Branch. The current CTP study is a long-range plan, which identifies major transportation improvement needs. The CTP is geared toward providing innovative solutions for pedestrian transportation for the next 25 to 30 years. It is a joint effort between the Towns of Jefferson and West Jefferson, Ashe County, the North Carolina Department of Transportation (NCDOT), and the High Country Rural Planning Organization.



According to the *CTP includes safe, cost-effective transportation modes* NCDOT, "The CTP study involves both government officials and the public in an effort to determine the area's future transportation needs based on the best information available including, but not limited to, population, economic conditions, traffic trends, and patterns of land development in and around the county. The study will also include alternative modes of transportation, such as transit, walking, and biking. Recommendations to address current and future capacity deficiencies and that provide for the safe, efficient, cost-effective, and environmentally sensitive use of the transportation system will be made."



The plan advocated the following recommendations for the Town of West Jefferson:

1. US Business Highway 221 from Jefferson Avenue to the Town of Jefferson: Recommendations include the installation of sidewalks.
2. 2nd Avenue from Jefferson Avenue to College Avenue: Recommendations include the installation of sidewalks.
3. Main Street from Jefferson Avenue to Church Avenue: Recommendations include the installation of sidewalks.

Greenway Plans

Jefferson Greenway

The Jefferson Comprehensive Pedestrian Plan calls for the development of the Jefferson Greenway to occur along Highway 221 as NCDOT performs road improvements.

The opportunity to develop a West Jefferson (221) greenway that would eventually connect with the Jefferson Greenway should be considered.

Community Development Plans

Jefferson/West Jefferson Thoroughfare Plan (NCDOT 2003)

(Note: If Ashe County CTP is adopted it will supersede J/WJTP)

The Jefferson/West Jefferson Thoroughfare Plan was adopted in 2003. This planning document provides an assessment of West Jefferson's current transportation infrastructure, vehicular traffic levels, and future projections; as well as areas which are prone to congestion and incident. The document also plans for roadway widening and other improvements.



Specifically, the Jefferson/West Jefferson Thoroughfare Plan calls for the widening of US Highway 221 from two (2) to four (4) lanes from its intersection with US Highway 421 in Watauga County to NC Highway 88 in the Town of Jefferson. According to the West Jefferson Land Use Plan, "Right-of-Way acquisition for this project is scheduled for 2012, and construction is scheduled for 2014". These improvements may result in an increase of traffic congestion in West Jefferson, reinforcing the need for a strong pedestrian network and pedestrian amenities.

The Jefferson/West Jefferson Thoroughfare Plan also mentions that Mt. Jefferson Road may be widened from two (2) to four (4) lanes; and Route 163 (from US Highway 221 to Boggs Road) also is slated for widening from two (2) to four (4) lanes. Improvements to NC Highway 194 between US Highway 221 and Beaver Creek School Road are also listed. None of these projects are currently scheduled.

Design Guidelines

ADA Design Guidelines



The Americans Disability Act (ADA) states that cities and municipalities must construct, modify, or adapt pedestrian facilities to accommodate individuals with disabilities and accessibility limitations. The following are some basic topics that must be addressed for sidewalks to comply with ADA requirements.

Curb ramp is non-existent

- Overgrown, broken, root laden, or otherwise rough conditions are not acceptable.
- Curb ramps provide entry and exit to sidewalks.
- Ramps also provide alternate routes around staircases.
- Cuts in medians at crosswalks allow travel across divided roadways.
- Slopes must be realistic for traveling.
- Ramps provide access to buildings that are not ground level.
- Adequate width provides sufficient passing.
- Historic district exemptions should be taken into account.
- Adjusted crossing times allow for safe travel across wide intersections.



3.2 PROGRAMS AND INITIATIVES CURRENTLY UNDERWAY OR PLANNED

Transportation Plans

Transportation Improvement Program (TIP)



It is important to evaluate other existing initiatives in order to appropriately incorporate current proposed improvements into the pedestrian plan. NCDOT has established priorities, which are addressed in the 2009-2015 Traffic Improvements Program (TIP). The Transportation Improvement Program (TIP) is a statewide program used as a guide for NCDOT in establishing long range goals for improving pedestrian transportation. Numerous transportation, bridge, and enhancement projects are being partially funded by TIP. The following projects (with location, stage, and schedule) are currently being planned; and, although long-range, should be taken into consideration in the formulation of the master pedestrian plan.

TIP #: R-2415
Route: US Highway 421/221
Status: Planning/Design in Progress
Description: US Highway 421 in Watauga County to US Highway 221 Business/NC Highway 88 in Jefferson (Ashe County) will be widened to a 16.1-mile four-lane divided roadway.

TIP #: U-3812
Route: NC Highway 88/ NC Highway 194 to US Highway 221 Business.
Status: In Progress
Description: Upgrade 1.6 miles of existing roadway

TIP #: B-4704
Route: NC Highway 88
Status: Preliminary
Description: Replace Bridge # 49 over Buffalo Creek.

TIP #: B-5147
Route: State Road 1509
Status: Preliminary
Description: Replace Bridge # 327



Safety and Education Programs and Resources

Ashe County Health Department (Appalachian District Health Department)

The Ashe County Health Department's (ACHD) Health Promotion & Health Education Program works with local worksites, schools, faith communities, preschools, community groups, families, and individuals to promote healthy lifestyles. The primary focus of the program is to follow the NC 2010 Objectives and Healthy People 2010 to promote the quality of life for all citizens through the partnership with *Eat Smart Move More North Carolina* initiative.



The *Families Eating Smart and Moving More Program* provides real-world advice for developing healthy habits as a family, planning healthy meals, and exercising more.

County partners with Eat Smart Move More NC

The Appalachian District Health Promotion will present the Families Eating Smart and Moving More Program to parent groups, faith communities, and community groups interested in participating in the program.

Participants in the *Families Eating Smart and Moving More Program* will leave the class with valuable life skills to help improve their lives and the lives of their families.

Other ACHD Promotion Programs Include:

- Tobacco Cessation, Prevention, & Control Programs for Adults & Youth
- Nutrition Education & Program Promotion For All Ages
- Physical Activity Education & Promotion For All Ages
- Policy & Environmental Changes To Support Healthy Eating & Physically Active Lifestyles
- Comprehensive Worksite Wellness Programs
- School Health Programs
- Preschool/Child Care Center Programs For Nutrition & Physical Activity

Patient Education Programs Include:

- Families In Smoke Free Homes Program for Expecting Mothers
- Comprehensive Family Planning Education
- Maternal Health Education: Prenatal, Labor & Delivery, Postnatal Education

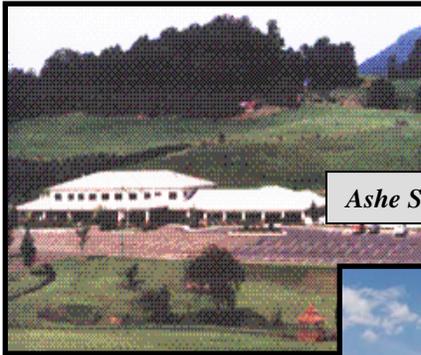


- Child Health Education: Parenting Education & Resource Materials, General Patient Education Resources

The Appalachian District Health Department (ADHD) plays an ever-growing role in safety and emergency preparedness. This includes administering vaccines and medicines to people quickly - when the need arises. The ADHD also provides assistance during natural disasters and severe weather events.

Ashe Services for Aging, Inc. (ASA)

Ashe Services for Aging, Inc. provide a wide range of services to seniors and disabled adults of Ashe County, North Carolina. Seniors may participate in the activities at the Senior Center and/or receive in-home aide assistance, respite assistance, and home-delivered meals. Generations Day Care, adjacent to the Senior Center, is one of three (3) intergenerational day care programs in North Carolina. . The Senior Center has a ¼



mile trail that is used by some of the center's patrons. The fitness center at the Senior Center offers incentives, which encourages walking for health and fitness.

Ashe Services for Aging, Inc. is in walking distance of Ashe Senior Village, Inc.

Ashe Senior Village, maintained campus. It housing for low-handicapped adults. to the Ashe Services provides housing to participate in all including congregate meals, educational programs and classes.



Housing for elder citizens is also available and is in walking distance of the Senior Center. Inc. is located on a large, well-provides attractive, efficient income elderly and The proximity of the complex for Aging Senior Center residents with the opportunity Senior Center activities,

Ashe County Healthy Carolinians (ACHC)

Ashe County Healthy Carolinians (ACHC) provides a broad array of services, programs, and events to promote health, fitness, and well being for the residents of Ashe County and the surrounding area. One notable program, which is hosted by ACHC) is the West Jefferson Locomotion Trail. This downtown trail is one (1) mile in length and begins and ends at the Art Center off of East Main Street. This is a walking path in downtown West Jefferson with 1/5 mile markers, which were made by local artisans and then permanently affixed in the sidewalk. They have the Locomotion Trail Symbol on them. General strategies of ACHC include:



- Providing a forum for citizens, community agencies, groups, and business to identify the health issues of Ashe County and to seek solutions for these needs
- Promoting the collaboration and involvement of consortium members and the community at large in health-related projects
- Serving as a resource for community agencies, groups, and businesses in the implementation of health related topics
- Implementing and facilitating programs designed by the ACHC committees that address Healthy Carolinians Objectives
- Encouraging an open membership to promote agency, business, community, and student organizational interest in identified health issues
- Serving as a resource for community grant proposal development
- Seeking funding for the ACHC and its projects
- Providing for ongoing evaluation of the ACHC goals and objectives



3.3 STATUTES AND ORDINANCES

Local Ordinances

The Town of West Jefferson Subdivision Ordinance

The Town of West Jefferson Subdivision Ordinance (adopted November 1, 2007) provides regulatory guidance for developers seeking to construct subdivisions within the Town's planning jurisdiction. The Ordinance establishes specific requirements for the construction of new streets and their design. The ordinances dictate how streets are to connect, look, and be designed. Intersection design is also regulated by the ordinances.

Although specific developer requirements for the Town Planning Board to consider when reviewing applications for new subdivisions exist, the Town of West Jefferson Land Use Plan has listed as a recommendation that the Subdivision Ordinance *specifically* require new commercial and multi-family developments to include sidewalks.



3.4 POLICIES AND INSTITUTIONAL FRAMEWORK

Interagency Partnerships

Ashe County Comprehensive Transportation Plan Study

The Ashe County Comprehensive Transportation Plan (CTP) is a joint effort between the following agencies:

- Ashe County
- The municipalities of Jefferson, West Jefferson, and Lansing
- The High Country Rural Planning Organization
- NCDOT



The CTP is formed by careful analysis of existing and projected transportation factors. These factors include: travel and land use, public involvement, and field investigations of recommended improvements.

The plan was adopted by Ashe County on February 15, 2010; and the Town of West Jefferson, on March 1, 2010. The CTP was then endorsed by the High Country Rural Planning Organization on March 17, 2010, and it was mutually adopted by NCDOT on May 6, 2010.

Capital Improvement Plans

Storm Sewer System and Streetscape Enhancements

The Storm Sewer System and Streetscape Enhancements Capital Improvement Plan projects downtown storm sewer and streetscape enhancement costs to be approximately \$4.2 million. The Town of West Jefferson intends to implement the plan on an "individual project" basis. Main Street streetscape and sewer improvements will be the first project started with others - possibly Backstreet – to follow as funds allow.

3.5 RELEVANT PEDESTRIAN STATUES AND ORDINANCES

The State of North Carolina follows a standard set of basic pedestrian laws, outlined in a guidebook published by the North Carolina Department of Transportation. A summary of these laws is below.

1. *Pedestrians need to obey traffic control signals.*
2. *Pedestrians have the right-of-way in crosswalks where there are no traffic control signals.*



3. *Pedestrians have the right-of-way at intersections without marked crosswalks.*
4. *Pedestrians have the right-of-way in walkways at alleys, driveways, private roads and building entrances.*
5. *Between adjacent intersections with traffic control signals, pedestrians may cross only in a marked crosswalk.*
6. *Pedestrians must yield right-of-way to vehicles if they are in the roadway but not at a marked or unmarked crosswalk (intersection).*
7. *It is unlawful to walk in the roadway if a sidewalk has been provided.*
8. *If no sidewalk is provided, pedestrians should walk on the extreme left of the road, or the left shoulder, facing on-coming traffic.*
9. *Standing, sitting, or lying upon highways or streets is prohibited.*
10. *At any street, highway, or road crossing or intersection that is not regulated by traffic control signals or officers, a blind or partially-blind pedestrian with a white cane or guide dog shall receive the right-of-way.*
11. *At intersections with traffic control signals, if a blind or partially-blind pedestrian with a white cane or guide dog is partially across the street when the signal changes, that pedestrian shall have the right-of-way to finishing crossing the street.*
12. *A person with a mobility impairment that is using a motorized wheelchair or similar conveyance shall be given all the rights and responsibilities of a pedestrian.*
13. *Electric personal assistive mobility devices may be operated on public highways with speeds of less than 25 mph, sidewalks and bicycle paths. They are required to yield right-of-way to pedestrians and other human-powered devices.*



These laws are available to the public in the NCDOT booklet, [A Guide to North Carolina Bicycle and Pedestrian Laws](#).

- END OF SECTION -



SECTION FOUR STRATEGIC PEDESTRIAN SYSTEM PLAN

Based on the objectives established earlier in this document – along with inventories of existing conditions and prior studies - McGill Associates has prepared recommendations for a Comprehensive Pedestrian Plan for the Town of West Jefferson. Section 4 describes these recommendations and/or proposals, which would expand the pedestrian facilities into a cohesive, safe, and usable network.

This section is separated into several components, which include: the *types* of recommended facilities, *specific* recommendations, and *users* of the pedestrian facilities. (The methodology utilized in the development of these recommendations was described in Section 1.4.)

Section 4 and the following sections will include recommendations, the establishment of priorities, and implementation guidelines for the proposed pedestrian facilities. In particular, Section 4 outlines the proposed pedestrian network and identifies areas of need and areas of opportunity.

4.1 SYSTEM OVERVIEW

Overall Network

The Town of West Jefferson currently has an incomplete, aging pedestrian system. Many areas lack pedestrian connections to/from downtown and other such pedestrian generators.

Gaps in System

There is very little connectivity in the existing pedestrian network in the Town of West Jefferson. There are a few connections to

Westwood Elementary on US Highway 221 South has no pedestrian connector

the downtown from the surrounding residential areas; however, these few existing connections often have large gaps in the system. Most of the intersections along the



main corridors lack marked pedestrian crosswalks and signals. There is no pedestrian connection between Downtown West Jefferson and Jefferson -



despite evidence of frequent pedestrian traffic. Few park areas and no public schools in Town are accessed by pedestrian facilities.

Barriers and Safety Hazards

By far, the greatest barriers to pedestrian travel in the Town of West Jefferson are the lack of sidewalks and crosswalks. The main thoroughfare through the Town is Jefferson Avenue, which has a large amount of vehicular traffic – but only one (1) marked pedestrian crossing. Physically, Jefferson Avenue divides the downtown area in half and is comprised of North Jefferson Avenue and South Jefferson Avenue. South Jefferson Avenue is a major destination for shopping, business, and visitors; however, there is an absence of safe places for pedestrians to cross the road in route to venues along North Jefferson Avenue.

A number of pedestrian generators are also located on Mt. Jefferson Road, but no pedestrian facilities exist to serve the non-vehicular population. The Ashe County Civic Center, Ashe County High School, and numerous shopping destinations are located along this corridor. However, the lack of sidewalks, crossing locations, and other pedestrian facilities prevent people from being able to safely walk here.

4.2 CORRIDOR IDENTIFICATION

Existing Pedestrian Corridors

US 221 Business

There is one existing, albeit incomplete, pedestrian corridor between downtown West Jefferson and Jefferson – US 221 Business. This major highway through the Town carries a high volume of traffic and is a major destination for residents - with restaurants, shops, and businesses spread out along its byways. It is also a major corridor into the downtown from the surrounding residential areas. There are sidewalks in *some* areas; otherwise, pedestrians must traverse parking lots or foot paths worn in the earth on the side of the road.

Jefferson Avenue

Jefferson Avenue is a major vehicular corridor that connects downtown West Jefferson with the growing south end of town. Jefferson Avenue is also considered a gateway into the downtown area. Currently, sidewalks are only available from 6th Avenue to 2nd Street.



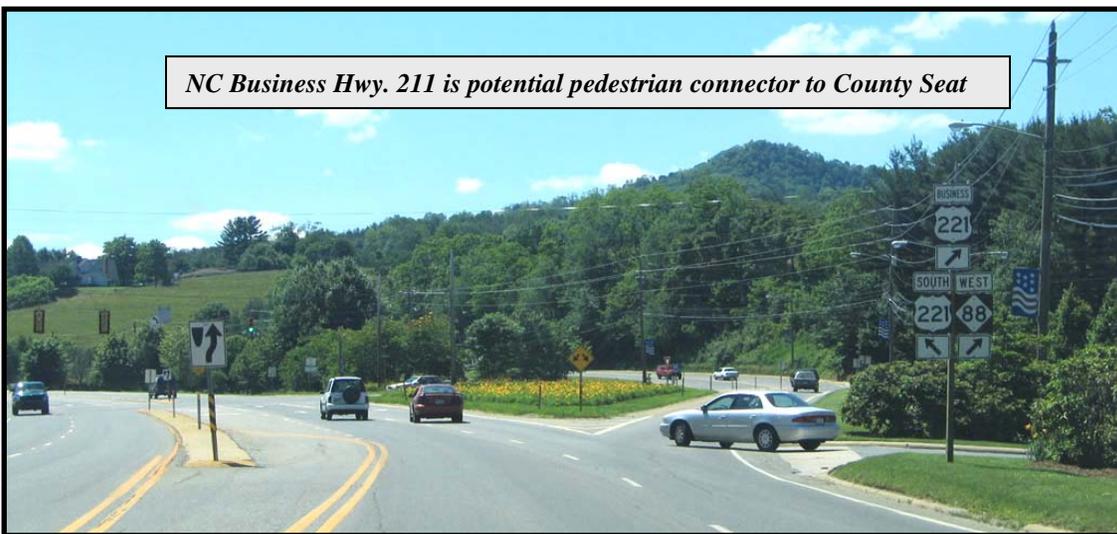
Ashe Street

Ashe Street is an existing pedestrian and vehicular corridor leading from Jefferson Avenue, west, to the Ashe Public Library. The corridor has commercial properties along its short length. The existing sidewalk has recently been constructed and is in good condition. However, the sidewalk is incomplete - stopping short of the library building by about 150 yards.

Main Street

An east/west corridor through the Town of West Jefferson runs along Main Street. This corridor begins in a residential neighborhood in West Jefferson - traversing the downtown area and continuing on to US 221 Business, which is an important connection to the Town of Jefferson. There are sidewalks along some of this route between Jefferson Avenue and NC Business Highway 221. Pedestrian routes from the west of downtown through to Business 221 include the short pieces of walkable sidewalk along 2nd (between Jefferson Ave. and Business Hwy. 221) and the segment of Main Street that links with Hwy. 221 via N. 6th Ave. The lack of complete sidewalk routes leading from the western residential area to downtown destinations prohibits safe walking and discourages the use pedestrian facilities.

Proposed Pedestrian Corridors



NC Business Highway 221

NC Business Highway 221 has the potential to serve as a major north/south pedestrian corridor, connecting the Towns of West Jefferson and Jefferson. This corridor is commercial in nature and has a fairly steady volume of resident/tourist



vehicular traffic. This thoroughfare will potentially allow for good east/west pedestrian connectors to several residential areas and provide access to shopping, dining, governmental offices, and other areas of employment. This corridor already exists, but it is completely undeveloped as an official pedestrian corridor.

North 6th Avenue

Pedestrians currently walk from NC Business Highway 221 to Main Street via this corridor - despite the lack of pedestrian facilities.

South Jefferson Avenue

South Jefferson Avenue could be an important corridor connecting downtown West Jefferson (North Jefferson Avenue) to business and residential areas south of the downtown area. Currently, pedestrian traffic is minimal - largely due to the lack of existing pedestrian facilities.

Beaver Creek School Road

This corridor would potentially serve to connect the downtown and surrounding neighborhoods on South Jefferson Avenue to the major shopping centers along Beaver Creek School Road (Ingles Market). It would also serve as an important link to the pedestrian route from the downtown area to US Highway 221.

2nd Street

2nd Street has limited sidewalks along portions of the route, with critical gaps in between them. Beginning at North Church Avenue, this corridor traverses the downtown and leads to NC Business Highway 221. The existing sidewalks are in front of businesses near 4th and 5th streets and are in fair to good condition. At this time, this corridor serves as a major vehicular corridor connecting the Town of West Jefferson to the Town of Jefferson.



2nd Street pedestrians maneuver around vehicles; unsafe sidewalks



Main Street

Existing Main Street sidewalks are in fair condition, but they lack any extension to nearby neighborhoods. The proposed corridor would provide a connection from the neighborhoods to the west of the downtown area to places of worship, parks, and shopping destinations in and around the downtown area.

Backstreet



Backstreet serves many pedestrians

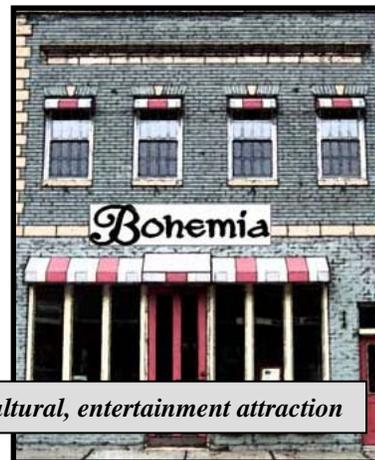
Backstreet from Ashe Street to 2nd Street offers the chance to provide a pedestrian corridor *behind* and *parallel* to the busy Jefferson Avenue. Currently, this corridor serves the Ashe County Farmer's Market, two (2) parks, the Ashe Public Library, and a number of local restaurants and other small businesses. Sidewalks and other pedestrian facilities would improve the safety of this route. Backstreet would also provide a very walkable corridor that can accommodate temporary closure to vehicular traffic, as it now does for seasonal events. It has minimal impact on NC Business Highway 221 traffic.

Beaver Creek School Road

Residential areas south of downtown West Jefferson lack pedestrian facilities to safely walk to shopping destinations on Beaver Creek School Road (Ingles Market). This corridor would provide the opportunity for many residents to walk from their neighborhoods to shop.

Mt. Jefferson Road

This corridor could provide needed pedestrian facilities to residents on the east side of Town. Currently this corridor connects the Mt. Jefferson State Park, Ashe Civic Center, Ashe County High School, Wal-Mart, Lowes Home Improvement, and other businesses with residential areas to the north and south. Sidewalks from the Ashe County Civic Center to Oakwood Drive would provide an opportunity for pedestrians to walk to destinations along this corridor. Crosswalks should be placed at the intersections of Mt. Jefferson Road and Campus Drive (Ashe County High School); and Mt. Jefferson Road and



Bohemia is cultural, entertainment attraction



Mt. Jefferson State Park Road, respectively.
Campus Drive

This short corridor would serve the purpose of providing pedestrian facilities from NC Highway 221 to Mt. Jefferson Road as well as provide the Ashe County High School with a safe route when crossing Mt. Jefferson Road.

Pedestrian Generators/Attractors

Typical pedestrian generators and attractors can be seen on maps 3 & 4 at the end of this sub-section. Many of these are not currently served by pedestrian facilities and may not be attracting many pedestrians because of this factor.

Parks/Recreation

- Backstreet Park
- Mount Jefferson State Park
- Bowie-Seagraves Park

Shopping

- Ashe County Farmer's Market
- Downtown Shopping District
- Wal-Mart Super Center
- Ingles Market

Dining

- Downtown Restaurants
- People's Drug Store/Restaurant
- Other area restaurants

Schools

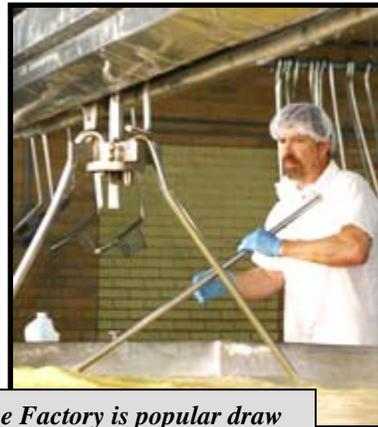
- Ashe County High School
- Westwood Elementary School

Civic/Service

- Ashe County Civic Center
- Ashe County Town Hall
- Ashe County Public Library
- Ashe Adult Care and Child Development Center

Cultural

- Downtown Art Murals
- Ashe County Cheese Factory
- Parkway Theater
- Area Christmas Tree Farms
- Scenic - Blue Ridge Parkway,
- Appalachian Trail, Virginia Creeper Trail
- Religious Institutions



Cheese Factory is popular draw for residents and tourists

Ashe County Public Library is pedestrian attractor





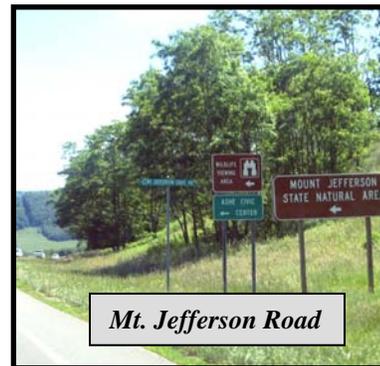
4.3 SPECIAL FOCUS AREAS

High Pedestrian Use Areas

Corridors with the highest pedestrian usage in the Town of West Jefferson are located at:

- Jefferson Avenue – with special concerns at:
 - the intersection with 2nd Street. This major entrance into the downtown area needs pedestrian facilities in order to increase safety for pedestrians.
 - Backstreet. This street attracts many neighborhood residents to the nearby park and Farmer's Market. Trucks, which are making deliveries to the businesses that front Jefferson Avenue, often use Backstreet to do so. Often, delivery vehicles are improperly parked or speed through this street.
 - the intersection with Ashe Street. The Ashe Public Library is accessible via a recently-constructed sidewalk that joins to Jefferson Avenue. However, there is no crosswalk located at this signalized intersection.
 - the intersection with Main Street. This intersection is signalized for pedestrian crossing, but the crosswalk striping has worn away. This usually leads to vehicles pulling too far forward under the stop light, interfering with the pedestrian right-of-way.

- Backstreet – This street parallels Jefferson Avenue and is commonly used for social functions like the Farmer's Market, seasonal festivals, and other events. No sidewalk currently runs the length of the street despite frequent use by walkers, who are avoiding the busier Jefferson Avenue. The portion of Backstreet between Market Street and 2nd Street receives the most pedestrian traffic. These street crossings have vehicular traffic that frequently exceeds the posted speed limit - creating a dangerous situation for any pedestrian.



- Mt. Jefferson Road – This roadway serves as a main north/south artery through the east side of West Jefferson. This busy corridor is home to the entrance of the Mt. Jefferson State Park, Ashe County Civic Center, and Ashe County High School. Mt. Jefferson Road has no sidewalks leading to any of these facilities. A lively business strip also lies along Mt. Jefferson Road and it has no pedestrian facilities. Traffic along this street proceeds at a high rate of speed; thus, prohibiting pedestrians from walking here.



- Beaver Creek School Road – where Jefferson Avenue and Beaver Creek Church Road join. The existing sidewalk on Jefferson Avenue does not continue onward from downtown to the popular southern end of West Jefferson. Due to the high rate of vehicular speeds along Jefferson Avenue/Beaver Creek School Road, it is hazardous for pedestrians traversing to/from the recently-constructed Hampton Inn and downtown areas.

4.4 POTENTIAL PROJECTS AND INFRASTRUCTURE IMPROVEMENTS

Pedestrian Network Methodology

As mentioned in previous sections of the Pedestrian Plan, the Town of West Jefferson has pedestrian facilities in some areas, but also has many areas that need improvements. Section 4 identifies both *general* and *specific* areas that need to be addressed. ‘Connectivity’ is a recurring theme within this portion of the comprehensive plan. Connecting pedestrian facilities to form a network of sidewalks and multi-use trails is a long-range project that requires extensive time and funding.

To create and develop a practical and feasible pedestrian transportation system for the Town of West Jefferson, a network of pedestrian-friendly facilities should be implemented. The system should be part of the urban fabric of the Town, with the essential element being ‘connectivity’ that will allow pedestrians to reach their destinations. The pedestrian system must also be safe for users. *If pedestrians have to risk their lives in order to walk to a destination, they will choose to travel by a different mode of transportation.* The pedestrian network needs to be safe and accessible for all users.

In addition to connectivity, *repairing* existing dangerous pedestrian areas is also a major concern with the system. Hazardous areas are priorities that need to be addressed immediately. The safety of pedestrians is one of the main concerns of the Town of West Jefferson. As new projects are developed, connectivity and safety should be among the primary goals and objectives.

A number of factors were used to develop the pedestrian recommendations. The previous sections describe topics such as community input and planning documents that were used as information sources. In addition, the Steering Committee, Town staff, and on-site field work were also integral parts of plan development.



West Jefferson Pedestrian Plan Input

- *Input from community workshops*
- *Input and recommendations from Steering Committee*
- *Site visits*
- *Review of existing planning documents*
- *Evaluations of existing pedestrian facilities and gaps*
- *Evaluation of pedestrian trip generators (destination areas)*

Based on Community input, Steering Committee input, input from the West Jefferson Community Partnership (WJCP - Small Business Group) – (See Maps 6 and 7 at the end of this section) several goals and objectives were established as guides for making recommendations. The following are the predominate themes that served as catalysts for development of the proposals:

- *Increase connectivity from residential to destination areas*
- *Improve existing conditions and expansion of the pedestrian system in the downtown areas*
- *Improve and repair existing non-compliant ADA pedestrian facilities*
- *Implement safe conditions for pedestrians where dangerous conditions exist*
- *Consider “future” development with regard to pedestrian facilities*
- *Connect pedestrian facilities where gaps and barriers exist*
- *Educate the public on fitness opportunities walking benefits*

Recommended Pedestrian Facilities

Numerous methods were involved in developing recommendations and proposals for the West Jefferson Comprehensive Pedestrian Plan. The process can be broken down into these basic tasks:

- Demographics and Population Trends
- Existing Facilities
- Needs Inventory
- Goals and Recommendations
- Implementation

Contained in each of these tasks is detailed information used to help develop and justify the proposals within the total document. Meetings and site visits were



conducted to ensure a better understanding of the needs and issues regarding pedestrian improvements. The proposals for ADA compliance and safety concerns are typical of most pedestrian plans. In addition to these *general* recommendations, the document identifies and makes proposals regarding issues that are *specific* to the Town of West Jefferson.

Many of the general proposals recommend connectivity, repair of existing facilities, and enhancement of future improvements; however, some of the future projects may not be facilities such as sidewalks or multi-use trails. Rather, the proposals may be goal-oriented – such as establishing creative partnerships, instituting safety programs, and/or coordinating special events. Proposed programs such as these will promote pedestrian use within the Town, but are not project-based recommendations.

The Pedestrian Plan proposes a basic network of non-vehicular corridors. These corridors will allow pedestrians to use alternative transportation methods. The network will consist of both existing corridors and new corridors. Many of the existing pedestrian facilities within the Town are in need of repair or improvement. The Town has made improvements over the years, but there are still areas in need of improvements. Map 1 (North) and Map 2 (South) – Existing Pedestrian Facilities, which delineate the existing conditions, can be found at the end of Section 2.

Pedestrian Crossing Projects

There are numerous unsuitable pedestrian crossings that have been identified in West Jefferson (See Existing Conditions Maps 1 and 2 in Section 2). Steps to improve these conditions range from installing high visibility striping at crosswalks to the installation of pedestrian signals at high- volume traffic intersections. Correcting dangerous intersections will not only encourage pedestrians to use the facilities, but will also reduce potential injuries. The intersections were chosen for improvements by means of field observation, public input, and Steering Committee input. The following subsection lists intersections in need of crosswalks, pedestrian signals; marked pedestrian crossings, traffic lights, and/or a combination of the above (see Proposed Improvement maps 3 and 4 at the end of this sub-section).

Marked Crosswalks

The following intersections currently have traffic lights but are in need of a highly visible, marked crosswalk:

- 2nd Street and Jefferson Avenue.



- Main Street and Jefferson Avenue (striping has worn away)
- Ashe Street and Jefferson Avenue.
- Buck Mountain Road and Jefferson Avenue.
- Mt. Jefferson Road and Campus Drive
- Mt. Jefferson Road and Mt. Jefferson State Park Road

Pedestrian Signals and Marked Pedestrian Crossings

Proposed locations for pedestrian signals have been restricted to areas where the danger from vehicles is marked. Jefferson Avenue is a dangerous road for pedestrians to cross. Considering the frequent pedestrian use along this stretch of road, downtown pedestrian signals would help make a safer route for pedestrians. There is an existing signalized crossing at the corner of Main Street and Jefferson Avenue.

Below is a list of areas where pedestrian crossing signals would be appropriate:

- Jefferson Avenue and Hamilton Avenue (HAWK flashing beacon before intersection crossing)
- Jefferson Avenue and 2nd Street
- Jefferson Avenue and Ashe Street
- Jefferson Avenue and Buck Mountain Road
- Jefferson Avenue between Vista Drive and Ashemont Drive (mid-block w/ HAWK flashing beacon)
- Mt. Jefferson Road and Campus Drive
- 2nd Street between 3rd and 4th Avenues (mid-block w/ Rectangular Rapid Flash LED Beacon)
- 2nd Street at corner of 6th Avenue (HAWK flashing beacon)

ADA Curb Ramps

Curb ramps that meet the Americans with Disabilities Act standards are a vital part of a good pedestrian system, ensuring equal access to the system for all mobile people. Several existing intersections in West Jefferson do not currently have adequate curb ramps; thus, access to the sidewalk system for those in wheelchairs or strollers is not possible. It is proposed that the following sidewalk areas and intersections be examined closely and brought into compliance with current ADA requirements:

- Jefferson Avenue at 2nd Street
- Jefferson Avenue at 1st Street
- Jefferson Avenue at State Street
- Jefferson Avenue near 2nd Street handicap parking on NE side does not have ADA ramp to access existing sidewalk



- Main Street sidewalk near Ashe County Cheese Factory

All new sidewalks that are installed must have ADA compliant curb ramps at intersections and driveways. (See Section 5)

Sidewalk Projects

Sidewalk projects primarily range from the replacement of unsuitable facilities to the implementation of new sidewalks for connectivity to destinations or existing sidewalks. By implementing these recommendations, the Town of West Jefferson can provide a more safe, accessible, and usable pedestrian network. Improvements are intended to connect to areas of high pedestrian volumes such as parks, commercial/retail centers, government/service centers, cultural amenities, and the existing sidewalk network. *All sidewalks, whether existing or proposed, should have marked crosswalks and curb ramps at intersections and driveways as a minimum requirement.* Intersections (having a high volume of vehicular traffic) should possess pedestrian traffic signals. These facility improvements should also be evaluated as future widening and roadway projects are constructed.

Sidewalk projects should include the following pedestrian-related amenities:

- Minimum of 5' in width
- ADA compliant curb cuts and ramps at all driveways and intersections
- Marked crosswalks at all intersections
- Pedestrian crossing signals at high-volume traffic intersections
- Sidewalks on at least one side of the roadway

The current pedestrian corridors in West Jefferson cover a very *limited* area of the Town. The proposed improvements connect these existing corridors and extend into new areas to help create a cohesive pedestrian network for the Town. The plan calls for both the expansion of the existing network and the renovation of the portions needing repair and upgrades. A detailed outline describing the location(s), priority, and construction/renovation cost of proposed sidewalks (See Appendix). The proposed sidewalk and trail improvements are shown on Maps 3 and 4 at the end of this sub-section.

North 6th Avenue

Sidewalks along North 6th Avenue would provide a pedestrian connection from NC Business Highway 221 to Main Street – forming a “loop” with a portion of Jefferson Avenue, 2nd Street, Main Street, and Backstreet. Sidewalks on this roadway would lead pedestrians to popular destinations such as the Ashe County Cheese Factory, the Parkway Theater, and the Ashe County Farmers Market - as well as parks, restaurants, and other local business.



School Avenue

Part of providing a well-connected pedestrian network in downtown West Jefferson includes important connector paths like the segment of proposed sidewalk that would connect Main Street with Hice Avenue.

Hice Avenue

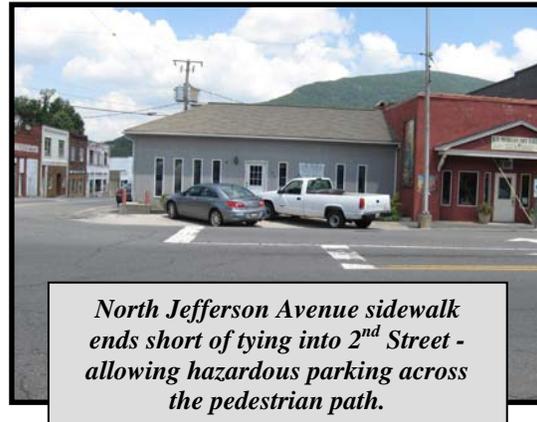
Part of providing a well-connected downtown pedestrian network includes the segment of proposed sidewalk that would connect Hice Avenue with the proposed sidewalk on Hamilton Street that would form a loop around the NE side of downtown West Jefferson. This loop is important - as public commentary and survey results indicate that pedestrians regularly walk this loop. Careful attention should be paid to pedestrian warning signage as a section of Hice Avenue sees industrial traffic from the adjacent lumber yard which could pose a conflict with pedestrians.

Hamilton Street

A short connector from Jefferson Avenue to Hice Avenue would be part of an important NE downtown pedestrian loop. It should also be noted that by reconfiguring the geometry of Hamilton Street to intersect with Jefferson Avenue at a more perpendicular angle would slow vehicular traffic entering and exiting Jefferson Avenue and shorten the distance pedestrians would need to cross Jefferson Avenue; thus, creating a safer pedestrian crossing.

North Jefferson Avenue

Sidewalks along North Jefferson Avenue from 6th Street to 2nd Street would provide a safe, walkable path to many downtown destinations for residents that live on the north side of town. The existing sidewalks in downtown are in fair condition and should be evaluated for needed repairs and ADA compliance regulations. The sidewalk should be continued all the way to the intersection with 2nd Street. Large cracked sections of concrete sidewalk should be milled or removed and replaced to avoid tripping hazards. New sidewalk needs to be constructed on both sides of the street from the intersection of Hamilton Street and Jefferson Avenue and connect with the sidewalk coming from the Ingles Grocery/Hampton area on the south of town.





South Jefferson Avenue

Pedestrian amenities along South Jefferson Avenue are either non-existent or in great need of improvement(s). Sidewalks here would provide safe and necessary facilities for walking to downtown West Jefferson from business and residential areas south of downtown. Sidewalks here would connect with those on North Jefferson Avenue to provide a safe and walkable route to major shopping centers (Ingles Market) and serve as an important part of the pedestrian route from downtown West Jefferson to US Highway 221.

2nd Street

Existing 2nd Street sidewalks should be evaluated for necessary repairs and ADA issues. Proposed sidewalks from Church Avenue to Jefferson Avenue would provide downtown access to the west side neighborhoods. A sidewalk from Jefferson Avenue to NC Business Highway 221 would improve the walkability of downtown.

On the east side of Jefferson Avenue, the bi-directional lane from Jefferson Avenue to 6th Avenue seems to get low usage between 3rd and 5th Avenues. This lane could be eliminated to make room for typical sidewalks on both sides of 2nd Street from Jefferson Avenue to 6th Street. A portion of turn lane from Jefferson Avenue to 3rd Avenue would be retained. Possible new pedestrian crossings would include a mid-block crossing with flashing pedestrian beacon to be located between 3rd and 4th Avenues. A crossing near 2nd Street and 6th Avenue with a HAWK style beacon would allow for safer crossing of pedestrians from the Town of Jefferson and the proposed multi-purpose path coming from the Mt. Jefferson Road area.

NC Business Highway 221

NC Business Highway 221 currently does not have formal pedestrian facilities available; but, has an evident need for them. Existing pedestrian traffic can be seen regularly walking along the roadway or along worn footpaths on the sides of the road. Sidewalks along this route will allow for safe walking for residents and visitors moving from West Jefferson to Jefferson and to nearby residential, shopping/dining areas, government offices, and other destinations.

This very busy vehicular corridor connects the downtowns of Jefferson and West Jefferson and currently provides the only way for pedestrians to move back and forth between the two towns. A foot path has worn on the NW side of the road from frequent use. A definite need exists for a paved sidewalk from the Town of Jefferson to the intersection of 2nd Street and 6th Avenue in West Jefferson. The segment of Highway 221 from the proposed multi-purpose path to 6th Street should have sidewalk on both sides of the thoroughfare to lead pedestrians on the NE side of the street to the nearest available pedestrian crossing location.



Main Street

Existing Main Street sidewalks are in fair condition but should be evaluated for necessary repairs and ADA issues. Proposed sidewalks from the neighborhoods to the west of downtown West Jefferson would provide safe access to places of worship, parks, and shopping destinations.

The sidewalk becomes inaccessible near the Ashe County Cheese Factory because ADA curb ramps are absent. Corrections to the curb ramps should be made as a high priority project.

Church Street

A sidewalk should be installed on Church Street between Main Street and Long Street to provide a safe pedestrian path around the Bowie-Seagraves Park.

Long Street

Sidewalk should be installed on Long Street between Church Street and Jefferson Avenue – as well - to provide a safe pedestrian path around the Bowie-Seagraves Park.

Backstreet

This highly used pedestrian thoroughfare should receive pedestrian amenities to include sidewalks on both sides of the street from Ashe Street to 2nd Street. Pedestrian crossing signage, highly visible crossing markings, and advance stop bars should be located at the intersection of Ashe, State, and Main Streets. Four-way stop signs should be installed at the intersection of Backstreet and Main Street.



Ray Taylor Road

Public surveys and commentary indicate a need for a sidewalk from Ashe Services for the Aging to Beaver Creek School Road. This would serve to form a loop connection when coupled with a proposed multi-purpose trail starting from



near the Hampton Inn on S. Jefferson Avenue and heading west towards Ray Taylor Road.

Beaver Creek School Road

Sidewalks from Ray Taylor Road to Jefferson Avenue would greatly improve the safety and walkability of this pedestrian corridor for a number of older residents in the area and make it possible to walk to nearby shopping venues.

Mt. Jefferson Road

Residents of West Jefferson could use proposed sidewalks on both sides of the Mt. Jefferson Road to access the Ashe Civic Center, Ashe County High School, Wal-Mart, Lowes Home Improvement, and other businesses and destinations. Sidewalks should extend from Highway 221 north of the Ashe County Civic Center south to Oakwood Drive. The northern segment of sidewalk would serve to connect with a proposed multi-purpose connector path that connects with the downtown West Jefferson area near 6th Avenue.

Campus Drive

Sidewalk from Highway 221 across Mt. Jefferson Road leading up to the Ashe County High School would provide the students with a safer route across Mt. Jefferson Road.

2nd Street to Main Street Alley-Way Sidewalk (“Gallery Alley”)

One possible opportunity to provide a safe and interesting pedestrian corridor includes developing the alley parallel to Jefferson Avenue between 2nd Street and Main Street. Utilities exist for lighting and space exists for a standard sidewalk width. Aesthetic enhancements could include wall painted murals by volunteer artists along the length of the alley. Such a project would require wayfinding signage and crosswalks where the path crosses 1st Street. The Town of West Jefferson would have to work with land and business owners and local artists to further develop the project.

Parks



Bowie-Seagraves Park

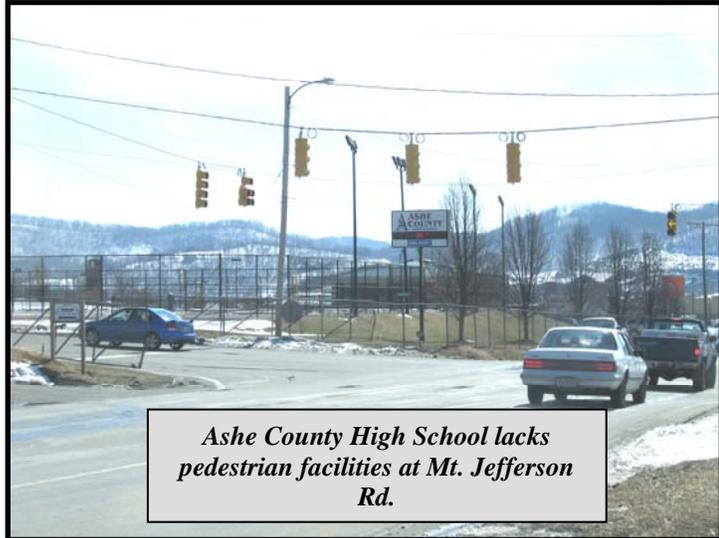
Backstreet – Providing sidewalks down at least one side of Backstreet would provide pedestrian access to Backstreet Park and Bowie-Seagraves Park.



Main Street – Providing a sidewalk down at least one side of Main Street will provide direct access to Backstreet Park and Bowie-Seagraves Park.

Schools

None of the public schools in West Jefferson are served by sidewalks at this time. It is important to provide pedestrian amenities to the schools for both safety and health reasons. Childhood obesity has reached unprecedented proportions in our country and is a major health concern for our nation. It would be unconscionable to encourage children to walk to school for health reasons, and then not provide them with a safe means for doing so. Ashe County High School is located on a busy roadway, yet there are no pedestrian facilities available. Campus Drive needs to have pedestrian facilities down at least one side of the roadway, which leads to the school. In addition, safe crossing amenities such as crosswalks and traffic signals need to be installed at marked intersections (see Maps 3 & 4 at the end of this subsection)



Greenway Corridor Projects

Greenway corridor projects include multi-purpose or off-road pedestrian facilities, which typically take advantage of the use of existing linear stream corridors, easements, and other open space areas. Trails and greenways are very popular among residents and visitors. Visitors appreciate and often return to communities that provide places for bicycling and walking when they are safely removed from busy roads and streets. Trails offer scenic recreation opportunities suitable for a wide range of ages and abilities. These trails can have a tremendous impact on the economy, potentially providing additional tourist dollars. Where popular trails exist, lodging providers can encourage extended stays among their guests, thereby increasing occupancy. For residents, investment in trails and greenways can increase property values and improve the overall livability of a community. Following are the benefits that can be generated from greenways:



Benefits of Greenways

- *Encourage people to enjoy the area from an outdoor perspective*
- *Provide opportunities for families to safely enjoy a healthy activity together*
- *Encourage walking or bicycling to locations within a reasonable distance, such as school, work, and recreational areas*
- *Enhance the safety and convenience of travel to many residential and commercial areas, recreational access sites, and other points of interest.*
- *Provide benefits to all road users by reducing congestion and enhancing motorists' safety.*
- *Reduce parking congestion at popular destinations*
- *Increase safe and affordable options for recreation and exercise, thus helping to improve the health of visitors and residents alike.*
- *Increase economic benefits such as increased tourism, higher property values, additional residential and business growth, and job growth*

Jefferson Greenway

The *Jefferson Comprehensive Pedestrian Plan (2008)* describes the Jefferson Greenway that could become a major corridor along US Highway 221. The corridor was chosen based on existing and design-phase plans for construction along US Highway 221. The corridor could be expanded to provide a link to West Jefferson on its western end; and to Family Central Park, on its eastern end.

Northern West Jefferson Greenway

There are many benefits to a connection with the future Jefferson Greenway. Not only would a recreational trail provide exercise for residents and visitors; but also, a safe pedestrian corridor would be created to move walkers from the Town of Jefferson to the Town of West Jefferson and vice versa. However, the proposed Northern West Jefferson Greenway would also serve to provide a much-needed east/west pedestrian corridor serving to connect the downtown area with the growing area on the other side of Highway 221 along Mt. Jefferson Road. In order to proceed with such a project the Town of West Jefferson would need to cooperate with local land owners and research possible routes along utility easements or other available land before further developing this multi-purpose connector.



Ray Taylor Road – Jefferson Avenue Greenway

Guidance from the Pedestrian Plan Steering Committee and commentary collected from public meetings indicate a need for a multi-purpose connector from Ray Taylor Road to Jefferson Avenue. In order to proceed with such a project, the Town of West Jefferson would need to cooperate with local land owners and research possible routes along utility easements or other available land before further developing this multi-purpose connector. One possible route includes connecting a path from Ray Taylor Road along Speaks Road to South Jefferson Avenue near the Hampton Inn.

Maps 3 (North) and 4 (South), which follow, delineate proposed pedestrian improvements for the Town of West Jefferson.

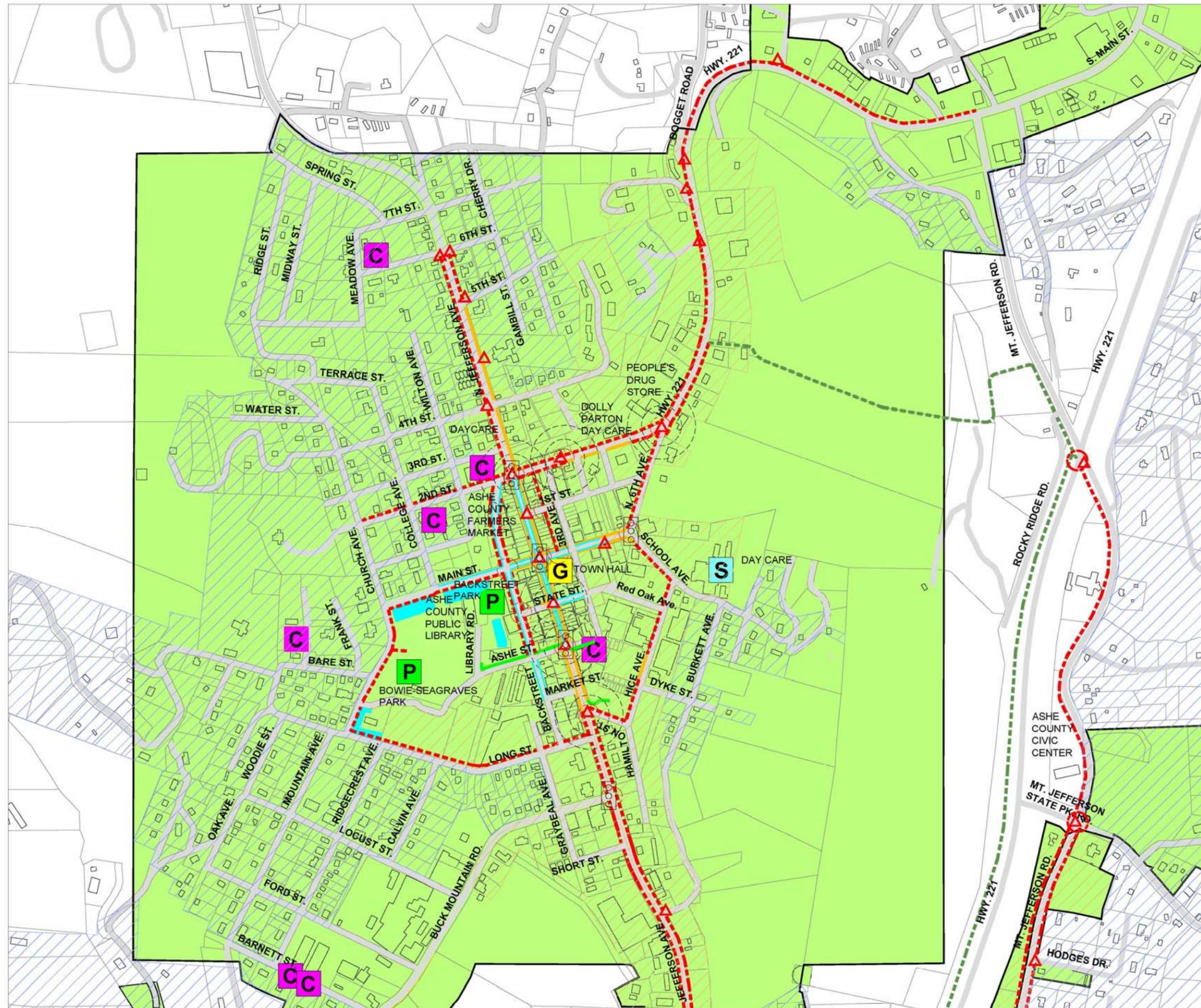
Town of West Jefferson

Comprehensive Pedestrian Plan Proposed Improvements

NORTH
Map 3

Legend

-  West Jefferson Town Limits
-  West Jefferson Extra Territorial Jurisdiction
-  Streets
-  Existing Sidewalk Fair Condition
-  Existing Sidewalk Poor Condition
-  Existing Sidewalk Good Condition
-  Existing Trail
-  Proposed Curb Cuts/Tactile Warning
-  Proposed Sidewalk
-  Proposed Multi-Purpose/Greenway Trail
-  Proposed Pedestrian Signal
-  Proposed Crosswalk
-  Church/Cultural
-  School
-  Government Facility
-  Park
-  Existing Traffic Signal
-  Residential
-  Commercial/Retail
-  Public Parking



BAR SCALE 1" = 300'
0 300' 600' 900'



Town of West Jefferson

Comprehensive Pedestrian Plan

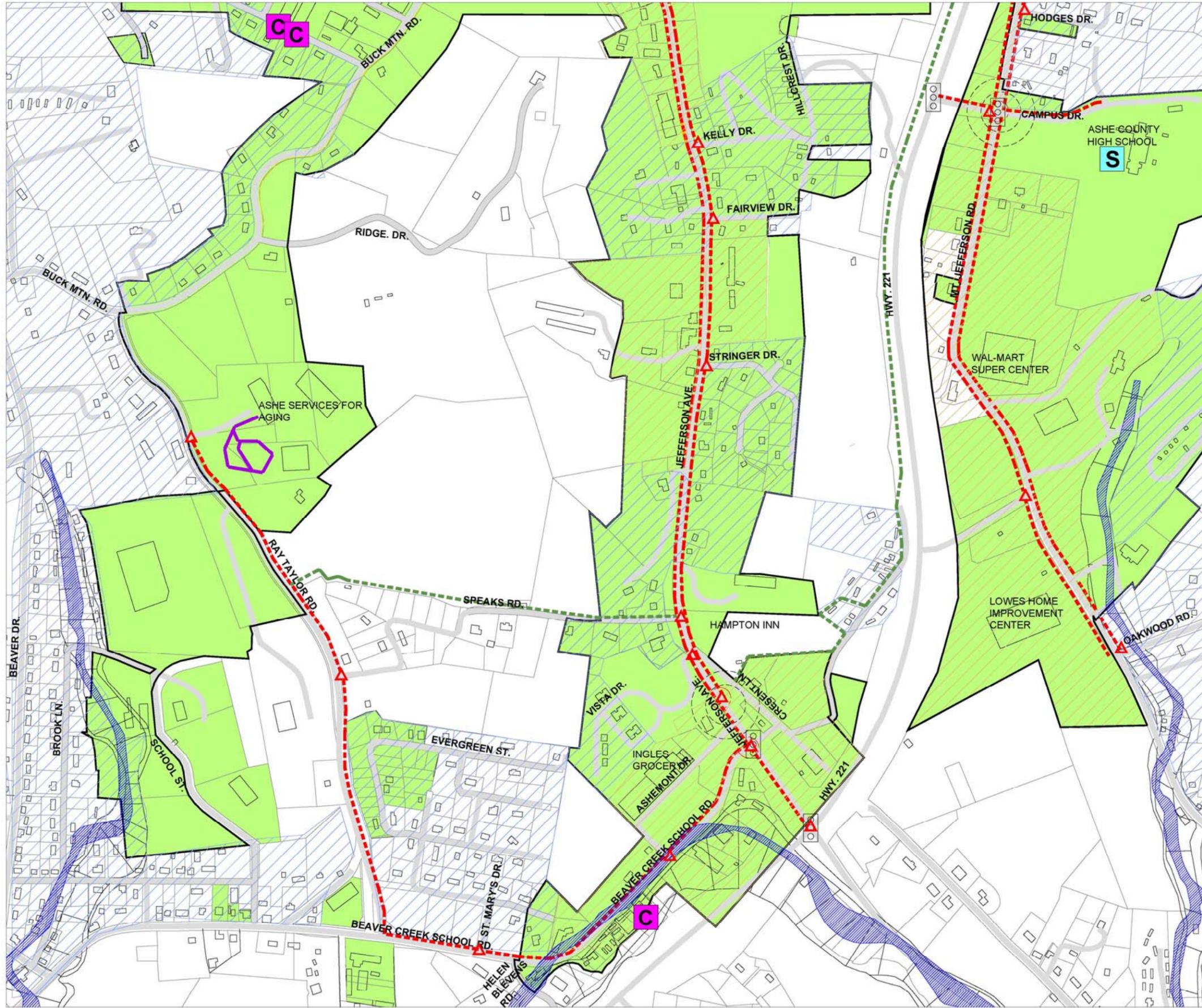
Proposed Improvements

SOUTH

Map 4

Legend

-  West Jefferson Town Limits
-  West Jefferson Extra Territorial Jurisdiction
-  Streets
-  Existing Sidewalk Fair Condition
-  Existing Sidewalk Poor Condition
-  Existing Sidewalk Good Condition
-  Existing Trail
-  Proposed Curb Cuts/Tactile Warning
-  Proposed Sidewalk
-  Proposed Multi-Purpose/Greenway Trail
-  Proposed Pedestrian Signal
-  Proposed Crosswalk
-  Church/Cultural
-  School
-  Government Facility
-  Park
-  Existing Traffic Signal
-  Residential
-  Commercial/Retail





Future Planning Efforts

Existing and future utility easements should be assessed to determine if they can be used for possible pedestrian connections. Town utility lines can create a network of connectivity to neighborhoods. The associated public easements should include recreation and alternative transportation as uses for the public right-of-way, allowing trails to be constructed in the future.

4.5 SPECIAL POPULATION SECTORS

Many different user groups will make use of the increased pedestrian facilities in West Jefferson. A segment of this population will be visitors while the vast majority will be residents - many with special needs. It will be imperative that new and existing facilities provide safe, pedestrian-friendly corridors for all users to navigate within the Town, particularly for senior adults and children.



ADA requirements will increase proportionally with senior populations

Senior Citizens

Senior adults are special populations that need particular consideration in pedestrian projects. Currently, there are *independent living* and *assisted living* residences for seniors in the Town of West Jefferson. The US Census reported that about 29% of the population in the year 2000 was over the age of 60. As a general trend, seniors have the time and desire to participate in pedestrian activities. Seniors also tend to rely on alternate means of transportation rather than personal vehicles.

With the promotion of healthy lifestyles and a need for alternate transportation, this population will need safe pedestrian facilities to be offered by the Town of West Jefferson. Special attention is needed to ensure a community where this segment of the population can safely traverse the streets.



The Walking School Bus promotes fitness

Children

Children also require special safety procedures with regard to public safety. An equally important component in this equation is *safety education*. Many children are injured every year due to their lack of understanding of the utilization of a pedestrian system. Education programs such as *Safe Routes to School*,



Walking School Buses, etc., should be promoted to assist children in learning how to cross a street and to walk in safe areas. Promoting healthy lifestyles for children will encourage physical activity and the use of sidewalks for exercise. The encouragement of walking is very important; but at the same time, the pedestrian facilities must exist (sidewalks to schools) and be user-friendly.

Disadvantaged Neighborhoods

As in every Town, there are neighborhoods in West Jefferson where the residents are at an economic disadvantage. Since privately-owned automobiles are the primary means of transportation in West Jefferson, the lack of an automobile can lead to significant difficulties in accessing jobs, medical facilities, schools, and other destinations. It is important to provide safe, equitable pedestrian opportunities for residents of these disadvantaged neighborhoods. A strong pedestrian network will allow them to access needed services, cultural/recreational amenities, jobs, and retail centers. Increased pedestrian activity will help to build a strong sense of community identity for these neighborhoods. Public commentary indicates that many disadvantaged areas exist in between the Towns of Jefferson and West Jefferson. Highway 221 and 2nd Street are the only assessable means for many pedestrians, who opt to walk from these disadvantaged areas. This fact emphasizes the need for safe pedestrian facilities along these corridors.

- END OF SECTION -



SECTION 5: FACILITY STANDARDS AND GUIDELINES

5.1 PEDESTRIAN DESIGN CONSIDERATIONS AND GUIDELINES

The guidelines in the Pedestrian Plan were developed through assessment and documentation of practices (observed or informed) documented by site observation, community input, and/or Steering Committee comments. National and state design standards as defined by the NCDOT, the Manual of Uniform Traffic Control Devices (MUTCD), the American Association of State Highway Transportation Officials (AASHTO), the Americans with Disabilities Act (ADA), and the Federal Highway Administration (FHWA) directly influenced the formation of these guidelines. If any discrepancies occur between the design guidelines developed for the Town of West Jefferson and existing national and state standards, the national and state standards take precedence. Furthermore, cost estimates provided for proposed improvements are relevant only for the date in which this document was prepared. The Town of West Jefferson should seek a current cost estimate for any proposed work from a qualified landscape architect and/or engineer before submitting the work for bid.

The following descriptions and typical details are intended to be used as design standards and alternative treatments for pedestrian facilities. The treatments are important and should be designed and constructed to meet the minimum standards for implementing a safe pedestrian and vehicular facility. Being that many of the local streets are NCDOT roadways, the Town should obtain the proper approvals and permits from NCDOT prior to implementing projects on subject roads.

Pedestrian Facility Elements

Sidewalks and Walkways

Sidewalks make up the majority of pedestrian facilities and are the most important component of a pedestrian network. The number of pedestrians using a particular facility will determine which type of sidewalk should be implemented. Sidewalks are the primary connectors for residential areas, shopping centers, and businesses. They create



Sidewalks are the most important pedestrian network component



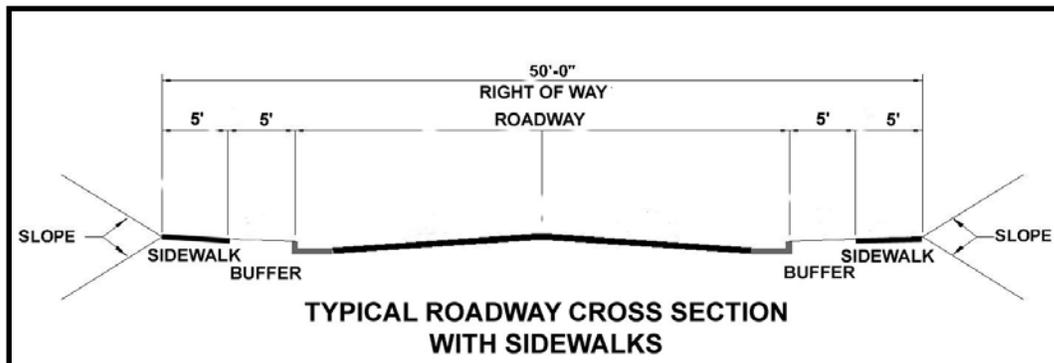
opportunities for people to meet and socialize.

They provide places for children to play and adults to exercise. They provide an alternate means for people to access commercial and business areas.

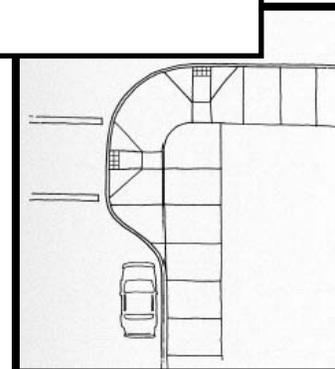
Most of the sidewalks located in the Town of West Jefferson will be five feet in width, providing an ample pathway for pedestrians to walk to their destinations. Where adequate right-of-way is available, a buffer can be utilized in order to separate the sidewalk from the roadway. Sidewalk areas within and leading to busier areas in West Jefferson should be wider to allow for a denser population, street furniture, and other amenities.

Sidewalks shall be constructed within the street right-of-way in accordance with Town Standards. Any location in which a sidewalk is not within the dedicated street right-of-way must have a sidewalk easement dedicated to the Town of West Jefferson. Sidewalks shall be installed at the time of roadway construction or widening unless otherwise approved by the Town. The Town may allow the developer a fee (in lieu of) constructing the sidewalk in appropriate locations. In addition, sidewalks shall be provided along streets within new developments as well as existing development expansion that are non-residential, multi-family, or single family residences as required in the Subdivision Ordinance.

The following roadway cross-section exemplifies the different standards that should be applied for the various applications. Sidewalks and planting strips (buffers) should be a minimum of 5' in width. *It should be noted that The North Carolina Department of Transportation (NCDOT) requires a three (3) foot buffer (instead of five feet).*



- Crosswalks should consist of two (2) twelve-inch white lines with a separation of six (6) feet.
- Pedestrian crossing zones should have a width of at least five (5) to eight (8) feet.



All sidewalks shall be constructed in accordance with the standard detail found in the NCDOT Construction Manual, as follows in the text.



Guidelines for Sidewalk Design/Construction:

- The minimum thickness of a sidewalk shall be 4 inches. At locations where a driveway crosses a sidewalk, a 6-inch depth is required.
- All sidewalks shall be constructed of concrete unless otherwise approved by the Town. Sidewalks shall typically be a minimum distance of five (5) feet off the back of curb with a minimum width of five (5) feet. This requirement may vary upon the approval of the Town depending on site constraints.
- The design of the sidewalk shall be such that pedestrian safety is provided and the usability of the sidewalk is not affected.
- Sidewalks shall have a uniform slope toward the roadway of $\frac{1}{4}$ inch per foot.
- If a 5-foot wide buffer or planting strip is provided between the sidewalk and back of curb, the slope shall not be less than $\frac{1}{4}$ inch per foot nor greater than 18 inches toward the roadway unless approved by the Town. In some cases there may not be sufficient width to provide the planting strip.
- Where no curb and gutter exists on a road that requires sidewalks, the Town may require curb and gutter installation in addition to the installation of the sidewalk.
- Where sidewalks and/or greenways intersect any section of curb and gutter or street section, a wheelchair ramp shall be installed per Town standards.
- The design and construction shall conform to ADA standards.
- Pipes, drains, or other concentrated stormwater devices shall not discharge across a sidewalk, but be piped or flumed under the sidewalk.
- All marked pedestrian traffic crossings must be approved by the Town or NCDOT Traffic Engineer prior to installation.
- All mid-block pedestrian traffic crossings shall be designated as a crosswalk with pavement markings and signage in accordance with MUTCD and must be approved by the Town or NCDOT Traffic Engineer prior to installation.

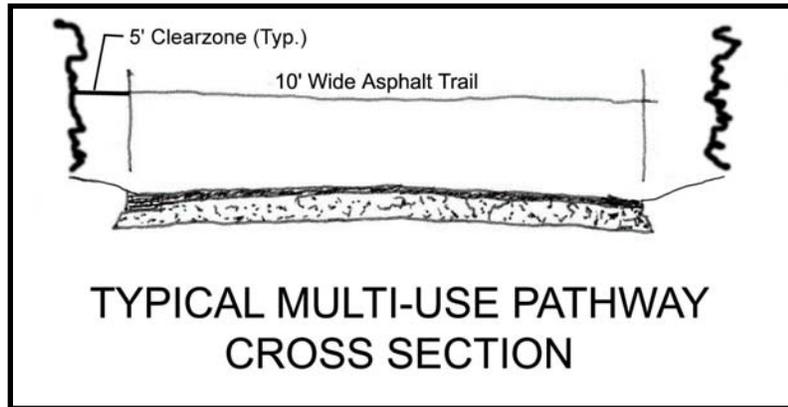
Sidewalk/Walkway Costs:

The cost of a 5-foot wide concrete sidewalk is approximately \$25/linear foot. The cost of curb and gutter is approximately \$22/linear foot. Asphalt walkways are much less expensive in terms of construction cost but more difficult to traverse and more expensive to maintain.



Greenway Trail

As sidewalks have different standards for various applications, greenways vary due to such factors as space, existing conditions, and usage. The pedestrian facilities, which have been proposed for the Town of West Jefferson, differ in variety and purpose. A



greenway can be a multi-use facility that is located off-street and offers multiple opportunities for different users - such as walking, in-line skating, and biking. Special considerations of safety should be made when these facilities are located near a roadway. Adequate separation or barriers should be implemented between the roadway and the multi-use path. The cross-section shown here identifies standards that should be implemented for each application.

A greenway is defined simply as *a trail corridor on primarily undeveloped land, as along a river or between urban centers, that is reserved for recreational use or environmental preservation.* As the greenway movement has experienced tremendous popularity, these facilities have been developed on abandoned railroad beds, utility corridors, and through residential communities. Most multi-use trails are wider than sidewalks for a variety of reasons. The minimum width for two-directional trails is 10', however 12'-14' widths are preferred where heavy pedestrian traffic is anticipated. Due to many of the facilities being off-road, the larger width provides access for maintenance and emergency vehicles. A majority of greenways are constructed using asphalt as the surface. This application is used primarily due to the lower cost as compared to concrete, which is used for sidewalks.



To create an aesthetically pleasing greenway, design techniques should be considered. Clearing of vegetation should be limited to clearing for construction, clearing underbrush to increase sight lines, and clearing for the safety of the trail user. Meandering the greenway helps create opportunities for landscaping and sightlines, particularly along extended, straight corridors.



Greenway/Multi-Use Trails Costs:

The cost of a 10-foot wide asphalt trail is approximately \$700,000/mile. This consists of a 6" stone base and 2" of asphalt.

Typical pavement design for a paved, off-road, multi-use trail should be based upon the specific loading and soil conditions for each project. These asphalt or concrete trails should be designed to meet loading requirements including maintenance and emergency vehicles.

Concrete trails - In flood prone areas, concrete should be used due to its durability versus asphalt, which can wash away or heave. In addition, concrete trails will withstand sub-grade failure and root intrusion better than asphalt surfacing.

Asphalt trails - Asphalt is predominately used on greenways primarily due to cost. It requires more maintenance than concrete due to its flexibility, which can cause movement of the trail. It is also important to construct a 2' stone shoulder on both sides of the asphalt edge to help prevent the edges from failure and erosion.

Marked Crosswalks

Pedestrians need to be able to traverse the local transportation system as easily and safely as those in vehicles. Providing marked crosswalks is one of



A change of materials is not always sufficient to clearly mark a crosswalk (above). The white border makes the crosswalk much more visible to drivers (left).

many ways to facilitate the safe crossing of streets and parking lots. A marked crosswalk is any crosswalk, which is delineated by white painted markings placed on the pavement. *Crosswalks consisting of textured, colored, or otherwise contrasting materials are 'unmarked' crosswalks unless white paint is also present.*



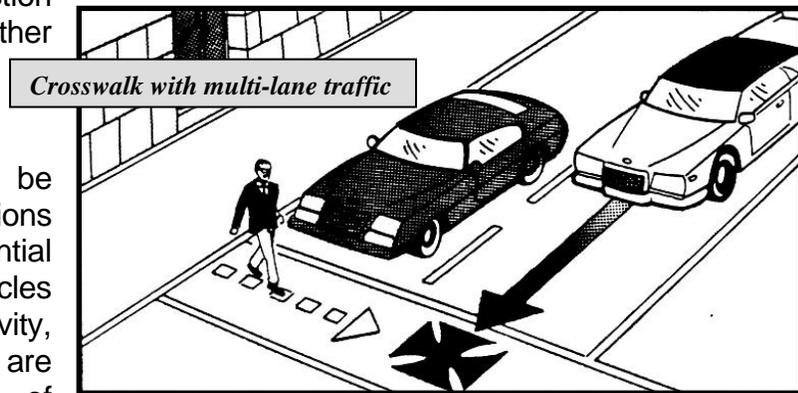
A crosswalk may be edged with special paint, thermoplastic materials, plastic tape, or other approved materials – as long as it is white.

NCDOT follows the national guidelines outlined in the federal Manual of Uniform Traffic Control Devices (MUTCD), the Traffic Control Devices Handbook, and other references. These references cover all aspects of the placement, construction, and maintenance of all approved traffic control devices.

In order to ensure the public understanding of traffic control devices, the devices need to be consistent. All traffic devices - including crosswalk markings and signs - must conform to all state and federal standards and regulations for dimensions, color, working, and graphics. Legal crosswalks usually exist at all public street intersections, whether marked or unmarked. However, the only way a crosswalk can exist at a *mid-block* location is if it is marked. It should be noted that NCDOT requires that mid-block crossings be no less than 200 feet from an adjacent signalized intersection.

Crosswalks are not a guarantee of pedestrian safety. State laws require a motorist to yield to pedestrians in a marked crosswalk. However, on roads with moderate to higher speeds and traffic volumes, drivers seldom comply. More vehicle/pedestrian collisions occur at marked crosswalks on multi-lane streets with a high volume of vehicular traffic than at unmarked crosswalks. This may be explained in part by the observation that older adults tend to cross at marked crosswalks, rather than at unmarked. As this age group is the most vulnerable pedestrian group, this may explain the accident numbers. The addition of warning signs and lights for drivers decreases the risk to pedestrians.

There are definitely safety concerns on multi-lane roads, which have crosswalks. (See the figure below.) If the driver nearest the curb stops for a pedestrian, but the driver in the next lane cannot see them and continues through the crosswalk, then the driver in the adjacent lane strikes the pedestrian. Pedestrians should not be totally dependent on crosswalks; rather, they should consider crosswalks as means of assistance and direction along the safest route, rather than as a way to stop traffic.



Crosswalks should be marked at intersections where there is substantial conflict among the vehicles and the pedestrian activity, where there are concentrations of pedestrians (otherwise pedestrians could not find the proper place to cross),



and where traffic movements are controlled. Examples of such locations are:

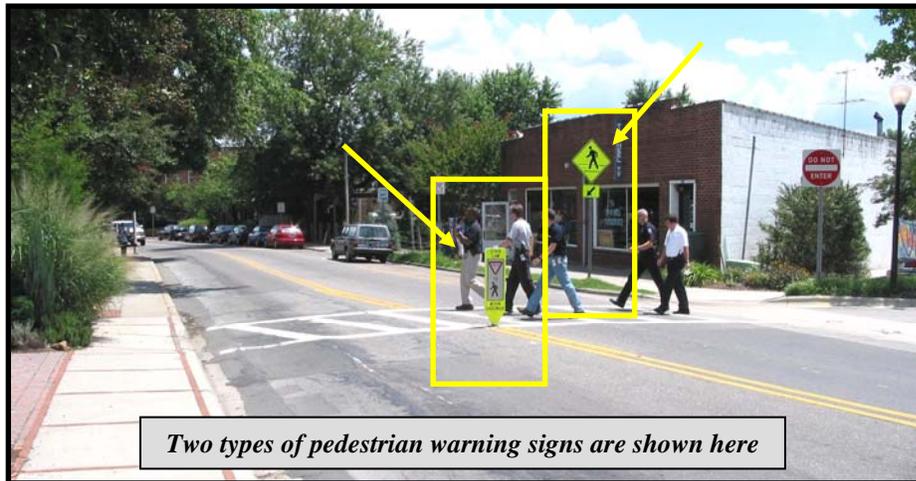
- Approved school crossings
- Signalized intersections
- Four-way stop intersections

Regulatory Signs and Warning Signs for Crosswalks

Regulatory signs give notice of traffic laws or regulations that pedestrians, cyclists, and motorists are required to follow. Warning signs call attention to unexpected conditions on, or adjacent to, a roadway, bike, or pedestrian facility that can be potentially hazardous to users.

Pedestrian-related signage serves primarily to alert motorists to the presence of pedestrians. The intended effect is to cause motorists to drive more cautiously and reduce their speeds, thereby improving safety for pedestrians in the given area.

Signs can be used in a variety of places, including crosswalks, intersections, in-street, and near schools. National standards for sign placement and use can be found in the Manual for Uniform Traffic Control Devices. The MUTCD provides guidance for warning signs which can be used at crosswalks or along the roadway:



The following are some recommended signs, which municipalities should consider installing. For more signs and more detailed guidelines for sign installation and use, the municipality should consult the MUTCD. The S4-3/R1-6 as well as the W11-2 signs are regulatory. The remaining signs discussed next are warning signs.



SCHOOL



The first sign is usually installed in-street to warn motorists to yield to pedestrians in a crosswalk. The “school” sign (above) is added to the in-street sign for placement near a school.

The second and third signs are commonly used as pedestrian warning signs.



The fourth and fifth signs notify motorists to watch for pedestrians in specific instances. The fourth sign, “Turning Traffic”, is usually placed at intersections to warn motorists that are turning right or left to yield to pedestrians in crosswalks.



For the fifth sign, the top sign can either be combined with the smaller “ahead” sign or the arrow symbol to indicate the presence of a crosswalk to motorists in a school zone.



The last sign is an example of typical wayfinding signage to help cyclists at major decision points along a route.



Following is a chart extracted from the MUTCD manual, which shows Pedestrian-Related Signage of the “regulatory” type.



MUTCD Pedestrian-Related Signage Regulatory Signs



School, Warning, and Informational Signs



Sign	MUTCD Code	MUTCD Section	Conventional Road	
Yield here to Peds	R1-5	2B.11	450x450 (18x18)	Regulatory
Yield here to Peds	R1-5a	2B.11	450x600 (18x24)	
In-Street Ped Crossing	R1-6, R1-6a	2B.12	300x900 (12x36)	
Peds and Bikes Prohibited	R5-10b	2B.36	750x450 (30x18)	
Peds Prohibited	R5-10c	2B.36	600x300 (24x12)	
Walk on Left Facing Traffic	R9-1	2B.43	450x600 (18x24)	
Cross only at Crosswalks	R9-2	2B.44	300x450 (12x18)	
No Ped Crossing	R9-3a	2B.44	450x450 (18x18)	
No Hitch Hiking	R9-4	2B.43	450x600 (18x24)	
No Hitch Hiking (symbol)	R9-4a	2B.43	450x450 (18x18)	
Bikes Yield to Peds	R9-6	9B.10	300x450 (12x18)	
Ped Traffic Symbol	R10-4b	2B.45	225x300 (9x12)	
<hr/>				
School Advance Warning	S1-1	7B.08	900x900 (36x36)	School, Warning, Informational
School Bus Stop Ahead	S3-1	7B.10	750x750 (30x30)	
Pedestrian Traffic	W11-2	2C.41	750x750 (30x30)	
Playground	W15-1	2C.42	750x750 (30x30)	
Hiking Trail	I-4	--	600x600 (24x24)	

1. Larger signs may be used when appropriate.
 2. Dimensions are shown in millimeters followed by inches in parentheses and are shown as width x height.
 3. First dimension in millimeters; dimensions in parentheses are in inches.
 4. All information in table taken directly from MUTCD.



Regulatory Signs



Regulatory signs are enforceable by law

Regulatory signs are designed to warn motorists and pedestrians of a legal requirement such as STOP or YIELD. These signs require certain actions and are enforceable by law. Many motorist signs, including stop signs, yield signs, turn restrictions, and speed limits - have a direct or indirect impact on pedestrians. Some examples of signs which

affect pedestrians include pedestrian warning signs, motorists warning signs, NO TURN ON RED signs, and guide signs.

The NO TURN ON RED sign may be used in some instances to facilitate pedestrian movements. *The Manual on Uniform Traffic Control Devices* lists six (6) conditions when "no turn on red" may be considered, three (3) of which are directly related to pedestrians or signal timing for pedestrians.



The use of NO TURN ON RED signs at an intersection should be evaluated on a case-by-case basis. Less restrictive alternatives should be *considered* in lieu of NO TURN ON RED. Also, supplementary signs, such as WHEN PEDESTRIANS ARE PRESENT or WHEN CHILDREN ARE PRESENT may be placed below the NO TURN ON RED sign.

There are occasions when NO-TURN-ON-RED restrictions are beneficial and specific recommendations relating to pedestrians include:

- Part-time restrictions should be discouraged; however, they are preferable to full-time prohibitions when the need only occurs for a short period of time.
- Universal prohibitions at school crossings should not be made, but rather restrictions should be sensitive to special problems of pedestrian conflicts, such as the unpredictable behavior of children and problems of the elderly and/or persons with disabilities. Pedestrian volume should not be the only criterion for prohibiting right turns on red.

There are a number of regulatory signs, which are posted specifically for pedestrians, which include:

- PEDESTRIANS PROHIBITED signs to prohibit pedestrian entry at freeway ramps.



Some regulatory signs are specifically intended to prohibit pedestrian activity



- Pedestrian crossing signs are used to restrict crossings at less safe locations and to divert them to optimal crossing locations. Various alternatives include the USE CROSSWALK (with supplemental arrow) sign, which may be used at intersections with traffic signals that have high-conflicting turning movements or at mid-block locations directing pedestrians to use an adjacent signal or crosswalk. These signs are critical at schools or other buildings that generate significant pedestrian volumes.
- Traffic signal signs include the pedestrian push-button signs or other signs at signals directing pedestrians to cross only on the green light or WALK signal. Pedestrian push-button signs should be used at all pedestrian-actuated signals. It is helpful to provide guidance to indicate *for which* street the button is intended (either with arrows or street names). The signs should be located adjacent to the push button and the push buttons should be accessible to pedestrians with disabilities.

Warning Signs

Warning signs are used to inform unfamiliar motorists/pedestrians of unusual or unexpected conditions. Warning signs predominantly fall under the permissive category ("may" condition) and when used, should be placed to provide adequate response times. Warning signs are generally diamond-shaped with black letters or drawings on a yellow background and should be made of reflective or illuminated material. The overuse of warning signs breeds disrespect and should be avoided.

The warning sign predominantly used to warn motorists of possible pedestrian conflicts is the Advance Pedestrian Crossing sign. This sign should be installed in advance of mid-block crosswalks or other locations where pedestrians may not be expected to cross. This significantly minimizes their use at most urban intersections since pedestrian crossings are an expected occurrence. This sign may also be selectively used in advance of high-volume pedestrian crossing locations to add emphasis to the crosswalk.



Where there are multiple crossing locations, a supplemental distance plate may be used (NEXT XXX FEET). The advance pedestrian crossing signs should not be linked to other *warning* signs (except for a supplemental distance sign or an advisory speed plate) or *regulatory* signs (except for NO PARKING signs) to avoid information overload and to





allow for an improved driver response. Care should be taken in sign placement in relation to other signs to avoid sign clutter and to allow adequate motorist response.

The Pedestrian Crossing Sign is similar to the Advance Pedestrian Crossing sign, but has the crosswalk lines shown on it. This sign is intended to be used at the crosswalk. When used, it should be preceded by the advance warning sign and should be located immediately adjacent to the crossing point. To help alleviate motorist confusion, a black-and-yellow diagonally downward pointing arrow sign may be used to supplement the pedestrian crossing sign.



The Playground sign may be used in advance of a designated children's play area to warn motorists of a potentially high concentration of young children. This sign should generally not be needed on local or residential streets where children are expected. Furthermore, play areas should not be located adjacent to high-speed major or arterial streets; or if so, should be fenced off to prevent children from darting into the street.

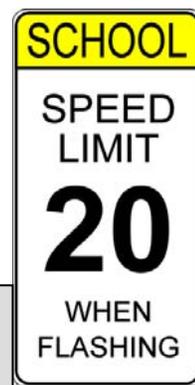
According to the *Traffic Control Devices Handbook*, CAUTION-CHILDREN AT PLAY or SLOW CHILDREN signs should not be used since they may encourage children to play in the street and may encourage parents to be less vigilant. Such signs also provide no guidance to motorists in terms of a safe speed, and the sign has no legal basis for determining what a motorist should do. Furthermore, motorists should expect children to be "at play" in all residential areas, and the lack of signage on some streets may indicate



otherwise. The signs are unenforceable and act as another roadside obstacle to pedestrians and errant motorists. Use of these non-standard signs may also imply that the involved jurisdiction approves of streets as playgrounds, which may result in the jurisdiction being vulnerable to liability.

School Warning signs include the advance school crossing signs, the school crossing sign, SCHOOL BUS STOP AHEAD sign, and others. School-related traffic control devices are discussed in detail in Part VII (Traffic Controls for School Areas) of the MUTCD. A reduced speed limit sign with flashing lights can be installed ahead of the actual crossing. The lights are set to flash during school hours, alerting drivers that a lower speed limit is in effect when the flashers are operating. Another sign and light combination is SCHOOL SPEED LIMIT 20, where the speed limit is illuminated during school hours.

Flashing lights, warning signs, and posted speed limit give motorists plenty of advance warning of school crossings





The MUTCD allows for the development of other specialty warning signs based on engineering judgment for unique conditions. These signs can be designed to alert unfamiliar motorists or pedestrians of unexpected conditions and should follow the criteria for the design of warning signs. Their use should be minimized to retain effectiveness and should be based on well-informed judgment.

Signs and Wayfinding

Signage is governed by the *Manual on Uniform Traffic Control Devices (MUTCD)*, which provides specifications on the design and placement of traffic and pedestrian signs installed within public right-of-ways. Signs are designed to provide important information that improves pedestrian and vehicular safety. By letting people know what to expect, there is a greater chance that they will react and behave appropriately. For example, giving motorists advanced warnings of upcoming pedestrian crossings or that they are entering a traffic calming area will enable them to modify their speeds. The amount and types of signage should be carefully considered as the overuse of signs can result in noncompliance, confusion, and disrespect.

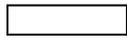
Municipalities should develop clear guidelines for the use of vehicular and pedestrian signs. Care should be taken to avoid an over-reliance on signs and paint to control motorist behavior. This may mean altering and/or relocating existing signs and markings that have proven to be ineffective for pedestrian safety.

The MUTCD has developed guidelines for signs and pavement markings that leave sufficient room for creative regulatory design. As a result, there is leeway in adapting guidelines to policy needs for specific signing/markings. Colors for signs and markings should conform to the color schedule recommended by the MUTCD. Such uniformity allows for recognition and understanding across jurisdictions.

The recommended background colors for signs are as follows:

-  General warning and school signs
-  Stop or prohibited
-  Service guidance, route markings
-  Destinalional/directional guidance, recreation, information
-  Public recreation and scenic guidance
-  Construction and maintenance warning
-  Regulation



 Regulation and route markings

 A new fluorescent yellow-green color is now approved for use on school and warning signs. This bright, unique color easily attracts the attention of drivers.

For pavement markings, the following should be used:

 Centerline stripes

 All other pavement stripes and markings, including edge stripes, lane markings, and crosswalks.

Pedestrian Signs

Pedestrian signs are designed to give information and direction in order to improve safety and relieve conflict between motorists and pedestrians. Signs are used to direct pedestrians to crosswalks or to limit pedestrian crossings at specific locations. Signs can also warn pedestrians of unexpected driver maneuvers. All signs should be periodically checked to make sure they are in good condition, free from graffiti, and that they continue to serve a purpose.



Unauthorized graffiti is illegal and is disruptive to drivers, pedestrians



Other signs may be used for pedestrians at traffic signals to define the meaning of the WALK, DON'T WALK, and flashing DON'T WALK signal indications. The decision to use these signs (or alternatively, stickers mounted directly on the signal pole) is strictly a judgment call and is primarily for educational purposes. As such, their use may be more helpful near schools and areas with concentrations of elderly pedestrians – both of which are high-risk areas. This information may also be effectively converted into brochures for distribution and ongoing educational purposes.



Guidelines for Pedestrian Signs:

- Pedestrian signs must be in compliance with the Manual on Uniform Traffic Control Devices (MUTCD).
- Signs can be used to direct pedestrian traffic to desirable crossing locations and to prohibit pedestrian crossings at undesirable locations.
- Installing too many signs at a location should be avoided to prevent confusion and disregard.

Aside from signs designed to impart information or explanation to pedestrians, there are additional types of signs, directed at both pedestrians and motorists. These signs are intended to increase the safety of bicyclists and pedestrians.

Directional Signs

Directional signs for pedestrians are intended to assist people who are new to the area or to assist residents who may not know the most direct route to a destination by foot (or by vehicle, for that matter). Distances, which are meaningful to pedestrians (such as the number of blocks, miles, and/or the average walking time), should be used to assist them when possible and/or practical.

Guidelines for Crosswalks:

The following guidelines are taken from the USDOT Federal Highway Administration's *Pedestrian Facilities Users Guide – Providing Safety and Mobility* (2002), and the Association of State Highway and Transportation Officials' *Guide for the Planning, Design and Operation of Pedestrian Facilities* (2004).

- Crosswalks should not be installed where speeds exceed 40 mile per hour.
- As noted above, in some areas, crosswalks should be used together with other traffic control devices to increase pedestrian safety. This is especially important on roads where the average daily traffic exceeds 10,000 vehicles.
- The MUTCD requires that the width of crosswalks be at least six (6) feet wide. In areas of high vehicle and pedestrian traffic, the crosswalks should be at least ten (10) feet wide. The NCDOT recommends widths of 10' or greater.
- Pedestrian access to the crosswalks via curb ramps and other sloped areas should be fully contained within the crosswalk markings.



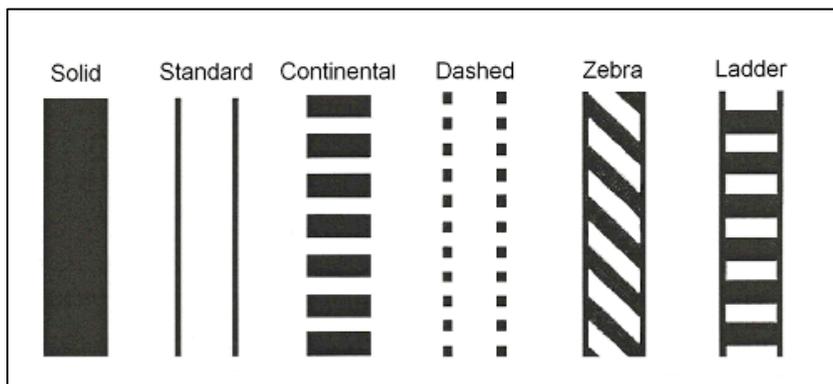
- Markings for the crosswalk should extend across the entire width of the roadway.
- The MUTCD recommends all crosswalk markings be white.
- The continental and ladder patterns for crosswalk markings are more easily seen and comprehended by motorists. Therefore it is recommended that one of these patterns be chosen for crosswalks in the Town of West Jefferson. Lines should be 12 inches to 24 inches wide and spaced one foot to five feet apart, depending upon the location and width of the roadway.
- Additional devices such as traffic signals and beacons should be added where vehicle speeds and traffic are higher.



Many factors must be analyzed before deciding on the location and type of crosswalk(s) to be installed. Some of them are:

- The number of pedestrians that will be served
- The function of the highway
- The volume and speed of vehicles
- The width of the road
- Both current and future predicted conditions
- The typical abilities of the pedestrians that would use the crosswalk
- Who will pay for and then maintain the crosswalk

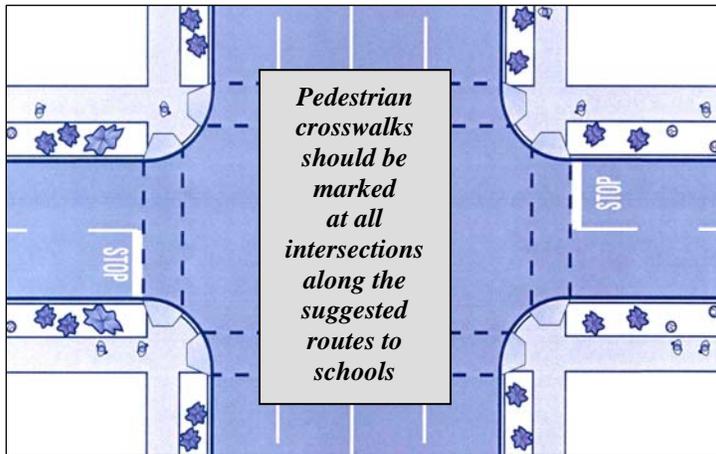
Common intersection crosswalk markings are shown in the illustration below:





Typical Crosswalks Costs:

Regular striped: \$150



Ladder or continental crosswalks: \$350
Pattern Concrete: \$3,500

Maintenance costs vary according to the region and the pattern of striping used.

School Crosswalks

With the elevated concern for the safety of children walking

to school, criteria for placing marked crosswalks along the route are a bit different from the general criteria. Crosswalks should be marked at all intersections along the suggested route to school where the volume of children reaches about 40 in a two-hour period.

School Zone Treatments and School Route Plan Map

Section 7 of the MUTCD is entirely devoted to "Traffic Controls for School Areas" and is the primary guidance available to municipalities for installing signs and markings in school zones. The section provides valuable



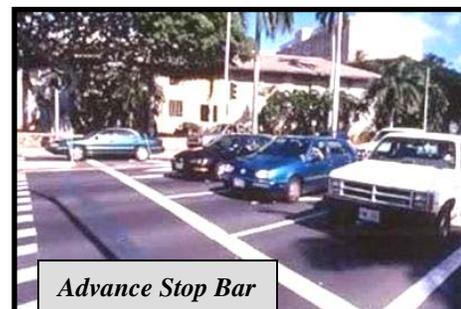
Pedestrian warnings in school zone hang above marked crosswalk

additional guidance for school crossing treatments that can be utilized for the planning and design of schools that should be considered when making safety improvements

School crossing signs should clearly mark all school crosswalks on the suggested route, as well as be placed at crosswalks within the school zone. Busy intersections crossed by children should include traffic control devices such as signals and signs.

Advance Stop Bars

In order to increase vehicle and pedestrian visibility, the vehicle stop bar should be applied to the street 15 to 30 feet back from the pedestrian crosswalk at signalized crossings



Advance Stop Bar



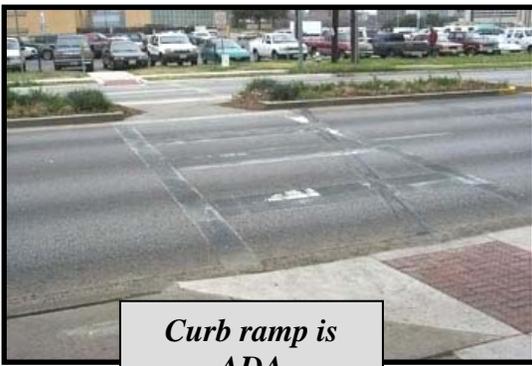
and mid-block crossings. Stop bars are one to two feet wide and extend across all approach lanes at intersections. By moving the bar further away from the crossing, motorists are influenced to stop further back from the crosswalk when yielding right-of-way to pedestrians. This helps to reduce conflicts (near collisions) between motor vehicles and pedestrians.

Advance Stop Bar Cost:

Signage: \$50 - \$150 plus installation

No additional cost if new line is installed in new paving.

Curb Ramps



*Curb ramp is
ADA
requirement*

Curb ramps are vital in providing access between the sidewalk and the street for people who use wheelchairs and other motorized mobility devices. Curb ramps are most commonly found at intersections, but they may also be used at other locations such as on-street parking, loading zones, bus stops and midblock crossings. The implementation regulations under Title II of the ADA

specifically identify curb ramps as requirements for existing facilities and all new construction. Curb ramps for existing facilities must be included in Transition Plans. According to the Title II implementation regulations, priorities for the installation of curb ramps in existing facilities should include access to government facilities, transportation, public accommodations, and for employees at their place of employment (U.S. Department of Justice, 1991a).

For many people with mobility impairments, curb ramps actually make it more difficult to navigate the pedestrian corridor.



*Truncated domes serve as detectable warning surface for the
visually impaired*

Crutches and canes are sized to fit the individual user so that the energy required for walking is minimized on a hard, level surface. Use of these types of walking aids is more difficult on sloped surfaces such as curb ramps. Widening the crosswalk to allow people to use either the curb or the curb ramp will ease access for cane and crutch users, who are not comfortable traveling on a sloped surface.



People with vision impairments rely on the “curb” to identify the transition between the sidewalk and the



street. The installation of curb ramps removes this cue and replaces it with a ramp which is much more difficult to detect. Therefore, it is important that as curb ramps are installed to create access for people who use wheelchairs, they are installed in such a way as to maximize detect ability for people with vision impairments. The ADA requires the addition of a detectable warning on all curb ramps. This consists of truncated domes extending across the entire width of the ramp and they must be in a contrasting color to the surrounding paving - either dark to light or light to dark.

Guidelines for Curb Ramps:

- Provide a level maneuvering area or landing at the top of the curb ramp.
- Clearly identify the boundary between the bottom of the curb ramp and the street with a detectable warning.
- Design ramp grades that are perpendicular to the curb.
- Place the curb ramp completely within the marked crosswalk area.
- Avoid changes of grade that exceed 11 percent over a 610 mm (24 in) interval.
- Design the ramp that does not require maneuvering on the ramp surface.
- Provide a curb ramp grade that can be easily distinguished from surrounding terrain; otherwise, use detectable warnings.
- Design the ramp with grades of $7.1 \pm 1.2\%$. [Do not exceed 8.33 percent (1:12).
- Design the ramp and gutter with a cross slope of 2.0 percent.
- Provide adequate drainage to prevent the accumulation of water or debris on or at the bottom of the ramp.
- Transitions from ramps to gutter and streets should be flush and free of level changes.
- Align the curb ramp with the crosswalk, so there is a straight path of travel from the top of the ramp to the center of the road to the curb ramp on the other side.
- Provide clearly defined and easily identified edges or transitions on both sides of the ramp to contrast with sidewalk.



Curb Ramp Costs:

The cost is approximately \$1,500 to \$2,000 per curb ramp (new or retrofitted).

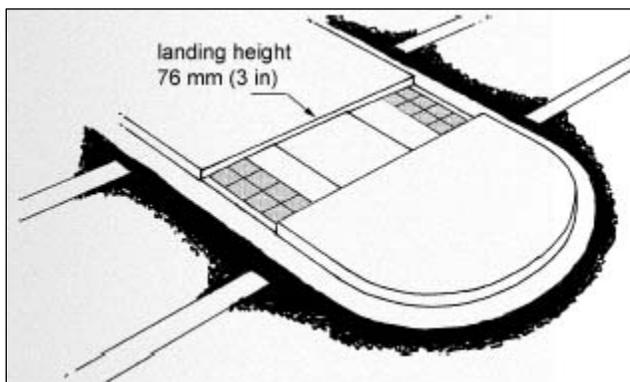
Raised Medians

Medians (also known as refuge islands) are the portion of a divided roadway that separates traffic flows, which head in opposite directions. At roundabouts, these are called splitter islands. Medians help pedestrians cross intersections by reducing the crossing distance from the curb to a protected area. This allows pedestrians to cross during smaller gaps in traffic. For this reason, medians are especially helpful for pedestrians who are unable to judge distances accurately. In addition, medians also help people with slow walking speeds to cross wide intersections during a short signal cycle. Medians are also useful at irregularly-shaped intersections, such as sites where two roads converge into one.



In commercial districts, medians provide pedestrians with valuable protection from oncoming traffic. In residential areas, they serve as traffic calming devices and green space.

Whenever possible, medians should be raised to separate pedestrians and motorists. Raised medians make the pedestrian more visible to motorists and they are easier for people with vision impairments to detect. Raised medians should be designed with a cut-through at street level or a ramp. This provides pedestrian access to individuals who cannot travel over a curb. Detectable



warning surfaces should be placed at the edge of both ends of the median in order for the streets to be recognized by pedestrians who are visually impaired. If the corner includes a pedestrian actuated control device, one should also be located at the median.

Figure shows raised median having pedestrian cut-through and curb ramp warning surfaces



Raised Median Costs:

The cost is approximately \$15,000 to \$30,000 per 100 feet

Curb Extensions (Bulb-outs)

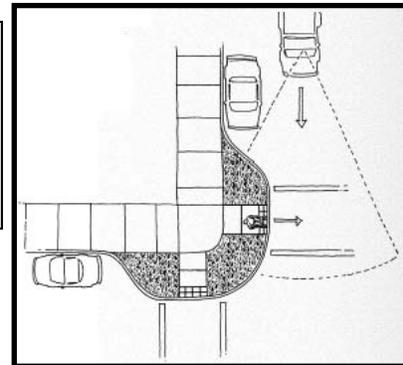
Curb extensions improve visibility between pedestrians and motorists and make it easier to install perpendicular curb ramps with level landings. They also reduce the crossing distance for pedestrians.

Low landscaping or grass can be added to the curb extension to clarify the appropriate path of travel for individuals with vision impairments. In addition, the following steps should be considered:

- Trim the vegetation, relocate signs and utilities, and eliminate visual clutter.
- Prohibit parking near the corner of the intersection.
- Provide for raised medians /crosswalks.
- Provide advance stop line before marked crosswalk on a multi-lane road.



Photo and diagram illustrate features of pedestrian bulb-outs

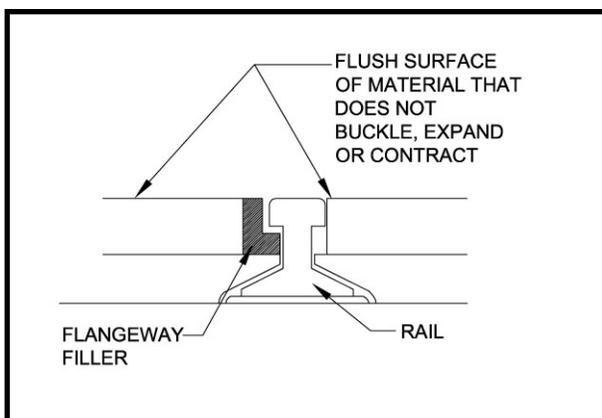


Curb Extension/Bulb-out Costs:

The cost is approximately \$2,000 to \$20,000. The cost can increase depending on the amount of relocated infrastructure.

Pedestrian Railroad Crossings

Railroad crossings pose unique hazards for pedestrians. The rails, ties, and bedding surface(s) are potential tripping hazards; especially if the material used to pave the crossing is subject to buckling, expanding, or heaving (such as asphalt). Also, if there are inadequate lines of sight and/or poor night lighting, the approach of trains can be hidden from pedestrians.



These hazards are magnified if the pedestrian has special visual needs and/or or mobility challenges.

One solution has been to fill the areas between the rail(s) with walking grade material. But in order for a train to pass, there must be at least a 2" gap between the material and the track or flange. This gap poses a hazard for wheelchairs and

Illustration of flush/flangeway fillers for smooth pedestrian access

mobility scooters; when

the small, narrow front wheels hit the unevenness of the gap, they will often turn sideways and can become lodged in the flangeway gap. The gaps are also large enough for a small child's foot or the tip of a cane walker to become stuck in the flangeway. Where pedestrians must cross Light Rail Train tracks or the tracks of slowly, moving trains, there is a rubber insert that can fill the flangeway gap and not interfere with the operation of the train.

Guidelines for Pedestrian Railroad Crossings:

- Raise the approach to the track to meet the top level of the rail. The approach should be flat for five feet on either side of the track.
- Use flangeway fillers wherever railroad traffic will allow.
- Use surface material that will not buckle, expand, or contract adjacent to the tracks to prevent tripping hazards.
- Pedestrian paths should always approach the tracks at a 90 degree angle.
- Install detectable, truncated warning domes in the sidewalk to warn pedestrians.
- Install railroad crossing warnings along sidewalk in the form of signs, flashing lights, and audible sounds.
- Signals and/or gates should be considered to prevent the passage of pedestrians when a train is approaching.

Pedestrian Railroad Crossing Costs:

Level Paving at Track: \$400 per linear foot (lengthwise along track)



Pedestrian/Countdown Signals

Pedestrian signal heads should be used at all traffic signals where pedestrians are permitted to cross, unless pedestrian volumes are extremely low. The use of WALK/DON'T WALK pedestrian signal indicators at signal locations is important



in many cases; in particular,

- when vehicle signals are not visible to pedestrians;
- when signal timing is complex (e.g., there is a dedicated left turn signal for motorists);
- at established school zone crossings;
- when an exclusive pedestrian interval is provided; and
- for streets are extra wide and where pedestrian clearance information is considered helpful.

In addition, *countdown signals* offer an additional safety measure by informing the pedestrian of the amount of time remaining to safely cross at a pedestrian crossing.

The use of international symbols on pedestrian signal heads is preferable and is recommended in the MUTCD; the "WALK" and "DON'T WALK" word messages



are also accepted as allowable alternatives in the MUTCD. Pedestrian signal heads should be clearly visible to the pedestrian at all times – whether pedestrians are in the crosswalk or simply waiting on the far side of the street. Larger pedestrian signal heads can be beneficial in some circumstances where more activity is prevalent or



greater distances are involved. Signals may be supplemented with audible messages to assist trained visually impaired pedestrians; however, these audible messages should not be used randomly, because they can become an environmental (noise) issue – thus, inhibiting pedestrian safety.

Guidelines for Pedestrian and Countdown Signals:

- Pedestrian signals should be placed in locations that are clearly visible to all.
- Larger pedestrian signals should be utilized on wider roadways to ensure readability.
- Pedestrian signal pushbuttons should be well-signed and visible.



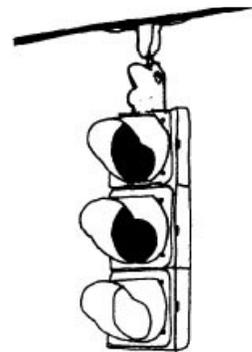
- Pedestrian signal pushbuttons should clearly indicate which crossing direction they control.
- Pedestrian signal pushbuttons should be reached from a flat surface - at a maximum height of 3.5 feet - and be located on a level landing to ensure ease of operation by pedestrians in wheelchairs.
- Walk intervals should be provided during every cycle, especially in high pedestrian traffic areas.

Pedestrian Signal/Countdown Signal Costs:

Signal cost is \$5,000/ \$500 to \$800 per signal head.

Pedestrian Audible Cue Costs:

The cost is approximately \$300 per signal.



Traffic Signals

Traffic signals create gaps in traffic flow allowing pedestrians to cross the street. Traffic signals should allow adequate crossing time for pedestrians and an adequate clearance interval based upon a maximum walking speed of four feet per second. A lower speed of less than four ft./sec. should be used in determining pedestrian clearance time for areas where there is a heavy concentration of the elderly or children. Signals are particularly important at high use, mid-block crossings on higher-speed roads, multi-lane roads, or at highly congested intersections. National warrants from the "Manual on Uniform Traffic Control Devices" (based on the numbers of pedestrians and vehicles crossing an intersection) are usually used in the selection of traffic signal sites. However, judgment must also be used on a case-by-case basis. For example: a

requirement for installing a traffic signal is that there are a certain number of pedestrians present. If a new facility is being built (such as a park or recreational path) there will be a new demand and the signal should be installed in conjunction with the new facility, based on projected crossing demand. There may also be *latent* demand if a destination is not currently accessible but could become so with new facilities or redesign.





In downtown areas, signals are often closely spaced, sometimes located at every block. They are usually spaced further apart in suburban or outlying areas. When high pedestrian traffic exists during a majority of the day, fixed-time signals should be used to consistently allow crossing opportunities. Pedestrian actuation should only be used when pedestrian crossings are intermittent.

Traffic Signal Guidelines:

- Traffic signals should be used where pedestrian traffic is regular and frequent. The signal should be timed to a consistent interval. Pedestrian actuation should only be used when pedestrian crossings are intermittent.
- Signal cycles should be kept short (ideally 90 seconds maximum) to reduce pedestrian delay. Pedestrians are very sensitive to delays and a 30-second maximum wait time is ideal.
- Marked crosswalks at signals can encourage pedestrians to cross at the signal and help dissuade motorists from encroaching into the crossing area.

Traffic Signal Cost:

The cost ranges from \$20,000 to \$140,000.

Landscaping/Enhancement

A network of safe, comfortable, aesthetically pleasing pedestrian corridors with connectivity to desirable destinations creates and promotes a livable community. Without each of these elements present, the walking community is incomplete. Safety, beauty, and connectivity all play important roles in a comprehensive pedestrian plan and each basic fundamental should be considered throughout the entire planning process.



Landscaping provides street buffer; Tree island forms bioretention pond

Landscaping can provide aesthetic improvement into a place that is otherwise hardened by buildings, concrete and streets. It can also be used to





provide a buffer and separation from pedestrians and motorists, reduce the width of the roadway, calm traffic, and help to develop a desired aesthetic appearance.

Street trees can visually impact areas by breaking up the hardscape often found in urban areas. Also, trees and plantings improve the environment by shading the street; thus, providing cleaner and better air quality.

When tree islands are built and designed correctly, they can help collect and filter vegetative swales from nearby streets and buildings. These areas, called bioretention ponds, act as a sponge collecting oils, fertilizers, and detergents and then release the stormwater. Bioretention ponds are encouraged - not only to improve water quality, but also to reduce storm flows during heavy rain events.

The local municipality is typically responsible for the landscaping requirements; although, there are some instances where community groups assist with the funding and installation of landscaping and maintenance. Native plants are often preferable as they more easily adapt to the local environment. Growth characteristics of the plant material should be carefully considered when choosing plants for a particular location. For example, when choosing street trees - their height, spread, and root systems should all be considered - thereby avoiding overhead wires and the buckling of sidewalks and streets in the future.

Guidelines for Landscaping:

- Buffer zone plantings should be maintained at no higher than three feet to allow sight distance for motorists and pedestrians.
- Trees with large canopies planted between the sidewalk and street should be trimmed to keep branches at least seven feet above the sidewalk.
- Plants and trees should be chosen to correspond to seasonal blooming and they should complement the culture and natural resources of the area.
- Landscape irrigation should be planned for and installed in the early phases of the construction process.

Landscaping Costs:

Landscaping costs can vary greatly. They may be supplemented by funds from community organizations or homeowners associations.



Roadway Lighting Improvements



Decorative streetlight

Proper lighting quality, placement, and sufficiency can greatly enhance a nighttime urban experience as well as create a safe pedestrian facility. Two-thirds of all pedestrian fatalities occur during low-light conditions. Particular attention should be addressed at crosswalk locations so there is adequate lighting for motorists to see pedestrians.

Many times, street lighting is implemented along roadways to light the roadway and the sidewalk - allowing adequate lighting for motorists and pedestrians. In urban areas, low-level lighting can be implemented through decorative streetlights which offer pedestrian-scale lighting. This type of lighting should be placed where there is high pedestrian volumes to offer improved aesthetics. A variety of streetlight choices include mercury vapor, incandescent, or high-pressure sodium. High pressure sodium is more cost effective but does not have the best light quality. Roadway streetlights can range from 20-40 feet in height while pedestrian-scale lighting is typically 10-15 feet.

When planning for lighting, it is not only important to have *sufficient* lighting; but also, prevent light pollution and glare. A qualified lighting expert should be consulted in order to properly plan for the wattage and placement with regard to area lighting.

Guidelines for Lighting Improvements:

- Ensure pedestrian walkways and crosswalks are sufficiently lit.
- Consider adding pedestrian-level lighting in areas of higher pedestrian volumes, downtown, and at major intersections.
- Install lighting on both sides of the street in commercial areas.
- Use uniform lighting levels.

Roadway Lighting Improvements Costs:

The cost of roadway lighting varies depending upon the type of fixtures and the service agreement with the local utility company. The cost can range from \$10,000-\$20,000 per pole.



Street Furniture and the Walking Environment

Sidewalks should be continuous and be part of a system that provides access to goods, services, public transit, and homes. Well designed walking environments are enhanced by urban design elements and street furniture such as benches, bus shelters, trash receptacles and drinking fountains. Carefully designed streetscapes enliven commercial districts and foster community life.



Sidewalks and walkways should be kept clear of poles, sign posts, newspaper racks, and other obstacles that could block the path of pedestrians or become tripping hazards. Benches, water fountains, bicycle parking racks, and other street furniture should be carefully placed to create an unobstructed path for pedestrians. Such areas must also be properly maintained and kept clear of debris, overgrown landscaping, tripping hazards, or areas in which water accumulates and causes problems for pedestrians.

Walking areas should also be interesting for pedestrians and provide a secure environment. Storefronts should exist at street levels and walking areas should be well lit and have good sight lines.

Street Furniture Guidelines:

- Good quality street furniture will show that the community values its public spaces; good furniture is more cost effective in the long run.
- Ensure proper placement of furniture and fixtures. Do not block pedestrian walkways or curb ramps.

Street Furniture Costs:

Benches: \$600 - \$1200

Drinking Fountains: \$1,000 – \$4,000

Trash Receptacles: \$500 - \$1000

Bollards: \$300 - \$1000

Transit Stop Treatments

Good public transportation is as important to the quality of a community as good roads. Well–designed transit routes and stops are essential to a usable system.



Bus stops should be located at convenient intervals for passengers. The stops should be designed to provide safe and convenient access in comfortable places for people to wait. Adequate bus stop signing, lighting, shelter (with seating), trash receptacles, and high visibility are all desirable features. Bus stops should also be placed where they can be accessed by walking, with road crossings.

The proper placement of bus stops is a key factor in user safety. For example, placing the bus stops on the near side of intersections or crosswalks may block pedestrians' views of approaching traffic and the approaching drivers' views of pedestrians. Approaching motorists may be unable to stop in time when a pedestrian steps out into traffic from the front of the bus.

Relocating the bus stop to the far side of the intersection can improve pedestrian safety since it eliminates the sight distance restriction caused by the bus. Placing bus stops at the far side of intersections can improve motor vehicle operation but should always be placed where pedestrians can cross the roadway safely.

The bus stop location should be fully accessible to pedestrians in wheel-chairs and should have paved connections to sidewalks where landscape buffers exist. Adequate room should exist to operate wheelchair lifts.

Guidelines for Transit Stop Facilities:

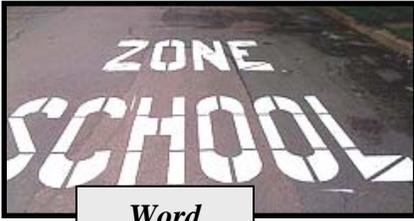
- Provide access to/from stops when transit stops are created.
- Ensure adequate room to load wheelchairs.
- Ensure a clear and comfortable walking path for passing pedestrians when placing transit shelters.
- Locate transit stops on the far side of marked crosswalks.

Transit Stop Facility Costs:

The cost ranges from \$1,000 to \$10,000, depending on the type of facility or facility improvement.

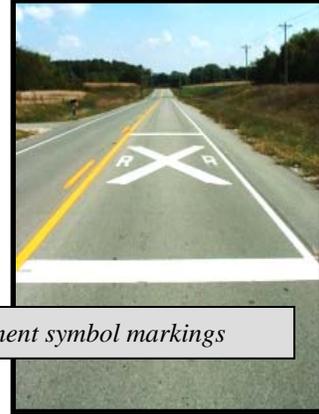


Pavement Word and Symbol Markings



Word markings

The MUTCD allows for the use of pavement word and symbol markings such as SCHOOL XING or PED XING, as motorist warning devices. These may be helpful on high-volume or high speed streets with unusual geometrics (such as vertical or horizontal curves) in advance of a pedestrian crossing area. Markings should be white and placed to provide an adequate motorist response. Their use should be kept to a minimum to retain effectiveness.



Pavement symbol markings

- END OF SECTION -



SECTION SIX: PROGRAM AND POLICY RECOMMENDATIONS

A variety of programs and facilities (designed to increase walking and promote pedestrian safety in the Town of West Jefferson) are outlined in this section. Policies are included, which recommend that the Town to help with the development and maintenance of the pedestrian network outlined in Section 4.

The following sections describe policies, programs, and action steps. These elements were developed using and evaluating existing planning documents mentioned in Section 3. The Steering Committee also assisted in developing the overall goals which include the following:

- Increase walkability in the Town of West Jefferson
- Create a pedestrian network that is an important part of the urban structure
- Promote walking as a healthy exercise
- Create a pedestrian environment that is friendly to all users including seniors, the disabled, and children
- Improve connections between disparate parts of the Town
- Promote pedestrian safety



Walking contributes to overall fitness

6.1 ANCILLARY FACILITIES AND PROGRAMS

Maintenance

Safety should be a high priority with existing and new facilities. Continual maintenance will be required to have a functional pedestrian network. Pedestrians typically aspire to use a facility that is in a good and safe condition; otherwise, it will not be used effectively. In addition to sidewalks, crosswalks at traffic intersections and mid-block crossings need to conform to the Manual of Uniform Traffic Control Devices (MUTCD). As crosswalks are installed, it will be important to place crosswalk warning signs to caution motorists. Currently, there are numerous areas within the Town that have no crosswalk signage; therefore, they are not ADA compliant. With an aging population, it is imperative that accessibility and user needs be addressed in these areas. In order to effectively address these issues, it is recommended that the Town staff conduct an inspection of existing pedestrian facilities within the Town on a quarterly basis to not only address previously identified maintenance issues, but also to inventory any additional areas where issues have arisen.

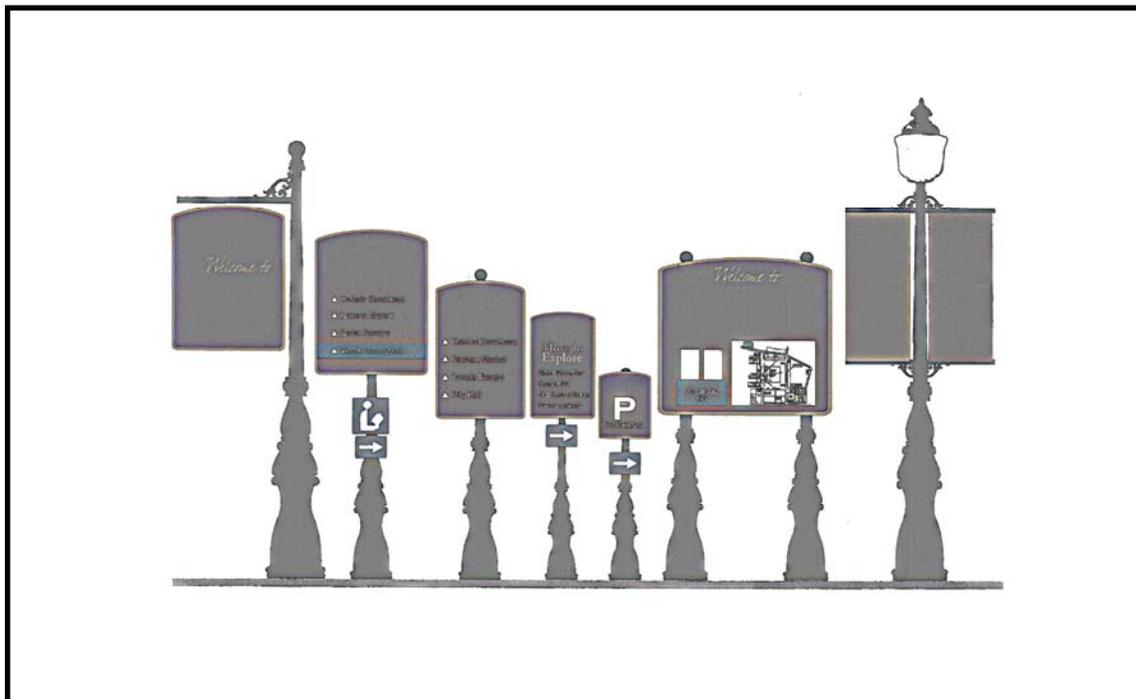


Signage

Maps of existing facilities in the Town of West Jefferson can be found at the end of Section 2. The maps are divided into the northern and southern sections of the Town. Not only do the maps delineate the conditions of existing pedestrian facilities, they also address barriers, crosswalk needs, and the lack of curb ramps. Major destination areas such as business districts, schools, and parks are featured in order to better understand the relationship of existing pedestrian facilities to their uses.

Proper signage is an important part of any transportation system - whether it is pedestrian or vehicular in nature. Signs in schools zones, parking lots, and other areas alert drivers to the presence of pedestrians in the area. Signage for *pedestrian* facilities is equally as important as signage for *roadways*. Often, pedestrian facilities lack signage directing pedestrians along a designated route. It is hard to imagine having to walk to a specific destination without knowing the exact route to use; but, this is often the case with pedestrians - especially visitors to the area.

Pedestrian facilities should have a clear and concise system of signage to direct users to various destinations such as downtown shopping, the library, farmers market, and area parks/trails, etc. This will assist pedestrians in walking to particular destinations and encourage/promote walking in the community. Various types of wayfinding signage are illustrated below.





Spot Improvement Programs

The Town of West Jefferson will be responsible for most of the spot improvements within the Town. Spot improvements are small projects such as the maintenance of curb ramps, the repair of damaged sidewalks, and the removal of debris. NCDOT's Spot Safety Improvement Program has funds available for spot improvements that cost less than \$250,000. These improvements should be performed on a case-by-case basis with special consideration given to hazardous areas. The Town should (annually) inventory and inspect areas requiring spot improvements, prioritize these locations, and proceed with the proper implementations.

One potential, *specific* project for such funding is the upgrade of existing curb ramps. Many of the curb ramps in the downtown area do not have ADA-approved, tactile, detectable warning devices.



Spot improvements prevent pedestrian accidents at hazardous areas

Traffic Calming Initiatives

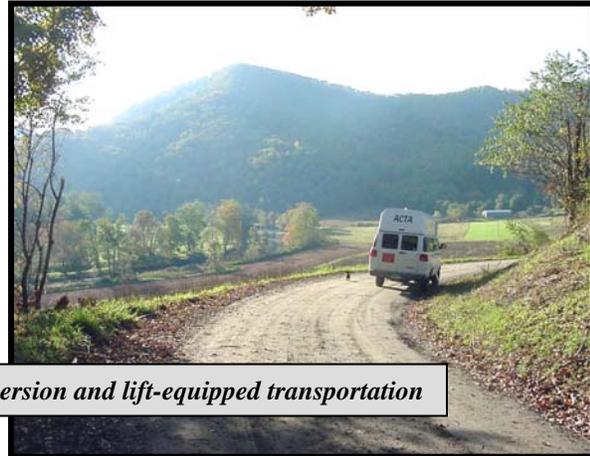
There are many areas within the Town where traffic speed is a problem. These areas may meet standard roadway criteria; however, they are dangerous locations from the perspective of the pedestrian, creating unsafe situations. High pedestrian traffic areas need safe traffic speeds in order to reduce the possibility of vehicle/pedestrian accidents. Pedestrians want to be in *secure* areas where they feel comfortable and vehicular traffic is controlled.

There are many simple and effective methods used to achieve traffic calming. These techniques can be as simple as lane striping or on-street parking. Subconsciously, a driver feels the need to travel slower in areas where the traffic lane is *visually* narrower. Methods such as street trees, bulb-outs, and crossing islands may not narrow the actual traffic lane; but, will create a constricted visual corridor of the roadway, causing most drivers to decrease speed. Other techniques such as speed tables, raised crosswalks, and specialty pavement - all attract the driver's attention, causing an immediate slow down. Although many speed tables and similar measures have been used successfully throughout the state, it is imperative that proper planning, evaluation, and engineering occur before these devices are implemented. (Photographs and diagrams of some of these traffic calming devices were illustrated in Section 5.)



Transit Interface

The Ashe County Transportation Authority (ACTA) offers Subscription Service, Demand Response Service, and General Public Service by utilizing conversion and lift-equipped vehicles. For a small fee, they also provide transportation for the general public. The system runs regular routes with transit stops.



ACTA provides conversion and lift-equipped transportation

The Town of West Jefferson should consider including facilities for ACTA riders. These should include bus stop shelters, benches, and other street furniture to reduce the discomfort of standing by a busy street waiting for a bus. It will be important to place these stops where they can be easily accessed by pedestrians. The provision of crosswalks and signals for safely crossing the street, sidewalks or paving (which is wide enough to accommodate a group of people), and clearly-marked signage leading to identifiable bus stops will be critical, as well.

Identify Countermeasures

National statistics indicate that nearly one-third of all pedestrian-related vehicular accidents occurred within 50 feet of a street intersection. Even though crosswalks at intersections may be properly marked with appropriate signage, accidents still occur. Many times the pedestrian does not take the proper precautions when crossing intersections. Sometimes the driver is at fault by failing to yield to pedestrians. Drivers and pedestrians should both take a defensive attitude toward pedestrian/vehicular safety when approaching intersections. NCDOT has published the handbook, *A Guide to North Carolina Bicycle and Pedestrian Laws: Guidebook on General Statutes, Ordinances, and Resources*. This document serves as an educational tool for pedestrians, drivers, and the general public.

Statistically, less than ten percent (10%) of fatalities in the nation involved a pedestrian walking along a road and not on a sidewalk. Most of these incidents involved the pedestrian walking “with” the traffic and being struck from behind. Safety guidelines suggest that pedestrians “face” the traffic when walking. More than one-fourth (1/4th) of all pedestrian accidents occurred at mid-blocks. This type of accident is typically associated with a pedestrian *darting* across the road. Prior to establishing a marked mid-block crossing, proper evaluation should be done to ensure the safety of the public.

The two (2) noted types of pedestrian accidents represent over 65% of pedestrian fatalities in the nation. Over the past several years, countermeasures have been



developed to mitigate pedestrian accidents. Countermeasures are generally “site-specific” improvements, which hopefully provide immediate solutions. The most effective countermeasures include roadway design, intersection design, traffic calming, traffic management, signals, signage, and pedestrian facility design. These planning and engineering methods are instrumental in reducing pedestrian accidents. Education and enforcement are also countermeasures that must be implemented in the prevention of pedestrian accidents. The following are examples of countermeasures that are related to pedestrian safety in West Jefferson.

Roadway Design

- Roadway Narrowing
- Lane Reduction
- Driveway Improvements
- Raised Medians
- Curb Radius Reduction
- Improved Right-Turn Slip-Lane Design

Intersection Design

- Modified T-Intersections
- Intersection Median Barriers

Traffic Calming

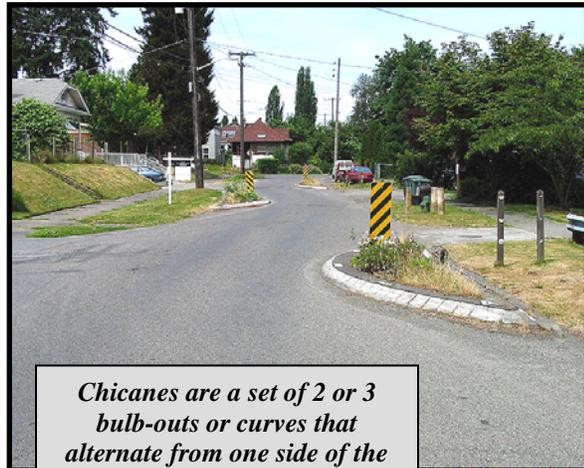
- Curb Extensions
- Chokers
- Crossing Islands
- Chicanes
- Mini-Circles
- Speed Tables
- Raised Intersections
- Raised Pedestrian Crossings
- Gateways
- Landscaping
- Specific Paving Treatments
- Serpentine Design

Traffic Management

- Diverters
- Partial Street Closure
- Pedestrian Street/Malls

Signals and Signage

- Traffic Signals
- Pedestrian Signals
- Pedestrian Signal Timing
- Traffic Signal Enhancements
- Right-Turn-on-Red Restrictions
- Advanced Stop Lines
- Signage



Chicanes are a set of 2 or 3 bulb-outs or curves that alternate from one side of the street to the other. They are designed to slow the speed of drivers – in this case, by creating a narrower lane.



Pedestrian Facility Design

- Sidewalks and Walkways
- Curb Ramps
- Marked Crosswalks and Enhancements
- Roadway Lighting Improvements
- Street Furniture/Walking Environment
- Pedestrian Railroad Crossings

Education and Enforcement

- Neighborhood Identity
- Speed-Monitoring Trailer
- On-Street Parking Enhancements
- Pedestrian/Driver Education
- Police Enforcement



Speed-Monitoring Trailer

6.2 POLICY RECOMMENDATIONS

The design and planning of pedestrian facilities are important components of roadway design. Fundamentally, both modes of transportation (pedestrian and vehicular) should acknowledge each other in matters of safety, accommodation, and relationship. Pedestrian movement has become an important focus for the Town of West Jefferson. The public needs connectivity, safer routes, and more walking opportunities. Although public meetings do not capture a *complete* synopsis of the Town's pedestrian needs, they do identify concerns and issues. Based on information from the general public, there is a perceived need for an expanded pedestrian network in the Town of West Jefferson.

Town staff and the Steering Committee also recognize other important issues. Connectivity and safety are of utmost importance to the Town of West Jefferson. Many areas within the Town were acknowledged as safety concerns that need to be addressed with regard to reducing potential pedestrian accidents. Increasing public safety (with devices such as pedestrian signals, signage, and the removal of existing barriers) will create a user-friendly pedestrian network and thereby, increase the number of pedestrians. The Steering Committee also recognizes the importance of providing equal pedestrian system access to those that are physically or economically disadvantaged. Special attention is needed to bring the network up to ADA standards for physical access. Developing the network into economically-challenged areas will assure equitable access for all citizens.

Land Use

Land-use policies and regulations have a strong influence on promoting walkable communities. If pedestrian facilities are not *required*, developers will be discouraged from incorporating these facilities in future projects. The Town of West Jefferson should study its zoning and subdivision ordinances regularly – to



ensure that developers adhere to policies and regulations, which create more pedestrian-friendly environments

As part of the West Jefferson Comprehensive Pedestrian Plan, the Town should continue to promote pedestrian facilities, particularly within new developments - both residential and commercial. Sidewalks should always be required for new streets, improved streets, or street extensions. Although developers may argue that this requirement increases development costs, this requirement will continually enhance and promote the pedestrian network established by the Town.

This pedestrian plan also recommends regulations that require sidewalk facilities for any renovations and/or additions to existing structures. As urban commercial infill properties re-develop, sidewalks should be constructed with these projects. In some instances, these sidewalks may still be disconnected, but over time, as these developmental projects continue, they will enhance pedestrian connectivity and reduce costs for the Town.



Developers should incorporate sidewalks in all future plans

Alternatives may be offered to developers by the Town due to anticipated future thoroughfare improvements. The Town of West Jefferson can offer the developer the opportunity of paying a “fee in lieu” of the actual construction of pedestrian facilities. This allows the Town to have control over current and future construction and maintenance of the pedestrian facilities. It also allows the Town to develop facilities in a continuous and efficient way, preventing the pedestrian facilities from being removed by the developer. The requirement of sidewalk construction “fee in lieu of construction” should be included in development regulations and the subdivision code.

Although the Town of West Jefferson should be flexible with development opportunities, the Town must require the developer to provide right-of-ways or easements for pedestrian facilities, including proposed greenway trails. All development approved by the Town must include the accommodation of pedestrians by the developer(s).



POLICY RECOMMENDATIONS AND ACTION ITEMS

Pedestrian Network

Create and maintain a pedestrian route network that strengthens the local communities of West Jefferson by connecting to existing and future parks, shopping centers, government offices, and businesses.

Recommendation #1 - *It is recommended that the town adopt language in the Town's land development ordinance that requires sidewalks. Exceptions may be considered on a case-by-case basis due to such considerations as difficult terrain, inadequate width, or exponential costs.*

Recommendation #2 - *Town ordinances and plans should be updated to reflect pedestrian plan recommendations and proposals.*

Recommendation #3 – *The Town should work with the Ashe County School System to ensure that future schools in the Town have a strong emphasis on non-vehicular transportation, such as walking, bicycling, skating, etc. In choosing locations for future schools, emphasis should be placed on orienting the main entrance toward residential neighborhoods rather than at major thoroughfares. School programs should promote non-motorized means for transportation for students, when applicable.*



Coordinate efforts with Ashe County School System

Recommendation #4 - *Provide pedestrian connectivity along existing thoroughfares such as Jefferson Avenue and Mt. Jefferson Road.*

Recommendation #5 - *Develop a system of way finding signage for pedestrian facilities and greenways that is consistent with the Town standards.*

Recommendation #6 - *New commercial and residential development should be oriented to the pedestrian and include internal pedestrian walkways connecting the development to the external sidewalk network in the public right-of-way as well as future development. If a planned residential or commercial development is located on a planned pedestrian project, an easement must be dedicated for the future shared-use.*

Recommendation #7 - *Construct pedestrian facilities as identified on the Proposed Pedestrian Facilities Map and according to the prescribed guidelines. Alignment for facilities may require adjustment in order to meet necessary requirements*



Recommendation #8- Maintain and repair existing sidewalks to current standards - ensuring that facilities are safe and free of obstacles and debris.

Recommendation #9 - Repair all noncompliant pedestrian facilities and ensure all new facilities should provide ADA accessibility to the maximum extent possible.



Facilities must be ADA compliant

Recommendation #10 – All maintenance should follow NCDOT standards, including the removal of unused or non-conforming driveway cuts.

Recommendation #11 - Coordinate planning efforts with county and nearby jurisdictions to provide regional pedestrian facility connectivity.

Recommendation #12 – Work closely with High Country RPO to ensure sidewalk projects are included in all NCDOT roadway projects.

Recommendation #13 - Require developers to provide pedestrian connectivity to adjacent developments and destination areas.

Safety and Health

Create, implement, and maintain safe pedestrian facilities which allow for a “walkable” community.

Recommendation #14 - Partner with the Ashe County School System in the initiation and implementation of school safety programs for school children.

Recommendation #15 - Install and/or replace all damaged and noncompliant pedestrian facilities as noted in the network recommendations, Items 6 and 7.

Recommendation #16 - Prioritize sidewalk implementation where gaps are located and where there is a high volume of pedestrian activity.

Recommendation #17 - Ensure that all sidewalks are extended across driveways at safe and usable cross slopes.

Recommendation #18 - Create a maintenance program which monitors existing sidewalks for damage and fills in gaps in the pedestrian system that meets current standards.

Recommendation #19 - Establish an annual budget for sidewalk repair and expansion to obtain connectivity.



Recommendation #20 - Provide pedestrian scale lighting at regular intervals where there is pedestrian activity at remote areas and traffic intersections.

Recommendation #21 - Connect local businesses to the public sidewalk system.



Connect sidewalk network to Downtown

Recommendation #22 - Ensure that new construction projects are installed and meet all design requirements.

Recommendation #23 – Work with local organizations such as the Ashe County Health Department and the Ashe Services for Seniors to educate and encourage citizens to include walking as a part of a healthy living plan. (See resources in Section 6.4)

Recommendation #24 – Encourage schools to develop walking programs to promote healthy exercise amongst their pupils.

Crossing Safety

Improve and construct all pedestrian crossings in areas where there is a high volume of pedestrian activity or where safety is an issue.

Recommendation #25 - Install marked crosswalks at all major intersections.

Recommendation #26 - Evaluate traffic intersections for possible design elements such as extended curbs and refuge islands for pedestrian safety.

Recommendation #27 - Update local traffic intersection guidelines to meet current state and federal requirements.

Recommendation #28 - Implement lower speed limits where there is a high collision rate with and high volume of pedestrian activity. Make sure that all speed



Lower speed limits where there are high volumes of traffic, pedestrians



reductions are clearly marked and enforced.

The Downtown should be designated as 25 mph or less.

Recommendation #29 - *Ensure that traffic intersections with pedestrian facilities are well lit.*

Recommendation #30 - *Evaluate pedestrian facilities annually for safety issues and implement solutions.*

Traffic Signals

Implement traffic signals at unsafe and dangerous intersections which improve pedestrian conditions

Recommendation #31 - *Install pedestrian signals at all major intersections.*

Recommendation #32 - *Seek funding opportunities which help with design assistance and implementation of traffic and pedestrian signals.*

Recommendation #33 - *Review the signal timing to ensure that pedestrians have adequate crossing times at intersections.*

Recommendation #34 - *Consider audible pedestrian signals near senior centers and other high volume pedestrian attractors.*

Recommendation #35 - *Consider using “countdown” pedestrian signals near high pedestrian volume locations such as the Jefferson Avenue and Beaver Creek School Road.*

Typical countdown signal



Community Strengthening

Provide amenities and elements that enhance the pedestrian environments and create a desirable place to live and work.

Recommendation #36 - *Implement streetscape improvements in the downtown that include design elements such as decorative paving, street trees, and furniture.*

Recommendation #37 - *Develop environmental education and interpretive facilities, particularly along greenway corridors.*



Recommendation #38 - Provide a planting strip between sidewalks and roadways for street trees and low plantings, where possible.

Recommendation #39 – Develop design standards for the placement of utilities (power poles, telephone poles, sewer inlets, etc.) so that they do not impede pedestrian traffic. This should become a part of the Town’s Code of Ordinances.



Recommendation #40 – The Town should coordinate the placement of all traffic and pedestrian signs with the Ashe County and NCDOT. Coordination should include the replacement and repair of signs.

Utility placements should be coordinated with the Town

6.3 PROGRAM RECOMMENDATIONS

Education, encouragement, and enforcement programs should be in place to teach and promote safety and ensure the success of West Jefferson’s pedestrian network for the future. The recommended programs will be successful in serving the Town’s need to support pedestrian activity.

Safety Education Programs

School-based programs that stress safety should be implemented regularly, particularly for young children. The promotion of ‘walking to school initiatives’ will raise public awareness of child safety and instruct children in the proper usage of sidewalk and other pedestrian facilities, whether walking to school or to the school bus stop. The local police departments typically provide such programs as this. Police officials go to the schools and educate children on the proper use of sidewalks and street crossings. In particular, young pedestrians need instruction on how to cross streets safely and how to interact properly with vehicle traffic.



Traffic Safety

The National Highway Traffic Safety Administration (NHTSA) has a web resource for promoting traffic safety, including pedestrian safety. The site provides research and information on these related topics:

- preventing pedestrian crashes
- a walkability checklist
- child safety
- walking to school
- other topics that are of use in developing a safety education program.



Safety education in school

<http://www.nhtsa.gov/portal/site/nhtsa/menuitem.dfedd570f698cabbbf30811060008a0c/> is the website for NHTSA.

Pedestrian Safety Action Plan

The Pedestrian and Bicycle Information Center (PBIC) has materials to help communities and organizations develop Pedestrian Safety Action Plans (PSAP). There are several safety training courses available on their website. These courses are designed to help communities develop and implement safe pedestrian networks. The website is <http://www.walkinginfo.org/training/pdps/>.



Safe Routes to School

Safe Routes to School (SRTS) is a program meant to encourage students to walk or bike to school safely. Information can be found at NCDOT's website and at the National Center for Safe Routes to School website. According to the website, "the program is designed to "improve safety and reduce traffic, fuel consumption, and air pollution in the vicinity of schools." The NCDOT grant program provides federal funds for the construction of infrastructure, such as sidewalks and bike lanes, within two (2) miles of a school. The program also provides for the education and encouragement of communities in the planning and construction of pedestrian facilities for their neighborhoods. For additional information visit the SRTS website at <http://www.saferoutesinfo.org/>.



Safe Kids Walk this Way



A program sponsored by Safe Kids, USA, Safe Kids Walk this Way strives to teach safe behavior to both motorists and children; and to promote safe, walkable communities. The program promotes safe walking events for children, provides research, participates in the International Walk to School Day (IWSD) in October each year, and promotes school-based pedestrian safety committees. Go to the website at <http://www.usa.safekids.org/wtw/>.

Other Education Resources:

- Turner-Fairbank Highway Research Center – Pedestrian and Bicycle Safety: Articles, facts, issues, publications, research, resources, and links to other sites. <http://www.tfhrc.gov/safety/pedbike/index.htm>
- Federal Highway Administration (FHWA) Pedestrian and Bicycle Safety. Materials, research, facts, and information on a variety of topics dealing with pedestrian safety. http://safety.fhwa.dot.gov/ped_bike/
- PedNet: Pedestrian advocacy group in Missouri. Their website is a useful tool for creating other groups like them at <http://www.pednet.org/>.
- The National Center for Bicycling and Walking (NCBW): Publications for promoting walking as a healthy lifestyle at <http://www.bikewalk.org/>.
- The Active Living Resource Center has a website to encourage the development of active neighborhoods by increasing the walkability of the community. The website, <http://www.activelivingresources.org/index.php>, has information on community involvement in developing active, pedestrian facilities.

Encouragement and Promotion

There are many initiatives that can be implemented by the Town of West Jefferson to promote pedestrian activity. Likewise, health-based organizations, employers, and civic organizations should offer incentive programs to encourage walking and physical fitness in general. Programs such as 'walk to school days'



and 'visiting area walking facilities' can not only encourage walking, but also allow residents to use areas they may not know are available.

Other means to encourage and promote West Jefferson as a walkable community include:

- Publish and distribute a West Jefferson walking guide brochure that covers the area's highlights, safety tips, suggested walking routes, and pedestrian rights and responsibilities.
- Promote neighborhood walks and nature walks.



Locomotion Trail was a community project

- Promote walk-for-health programs with local churches, businesses, and recreation centers.
- Organize walk-to-work/school days and/or weeks.
- Promote the various walking tours in West Jefferson by providing historical and/or directional maps.

Eat Smart Move More North Carolina

The Eat Smart Move More (ESMM) North Carolina program is a statewide promotion to encourage healthier lifestyles for North Carolinians. Encouraging residents to walk more is just one part of this multi-disciplinary program, which some residents of West Jefferson have participated in. However, the Town should continue to encourage residents to take part in this program. Healthy walking programs such as this can be put in place by a wide variety of organizations, including the health department, local hospitals, senior centers, local businesses, schools, churches, and recreation departments.

Walk to School Initiative

The National Center for Safe Routes to School and the NCDOT Safe Routes to School encourage "walk to school" events every October. These events are seen as a preliminary step in changing the attitude of people towards increased pedestrian activity. The *International I Walk to School in the USA* website has suggestions for events and classroom lesson plans for promoting the walk to school initiative. Visit <http://www.walktoschool.org/eventideas/index.cfm>.



Mature Adults: Be Healthy, Walk Safely

A resource for mature adults by the National Highway Traffic Safety Administration (NHTSA), this web brochure provides tips for developing a personal walking exercise program and safety guidelines for dealing with traffic at <http://www.nhtsa.dot.gov/people/injury/olddrive/steppingout/index.html>.

Enforcement Programs



A prominent issue that the Town of West Jefferson faces with *vehicular* versus *pedestrian* traffic is with regard to enforcement. For decades, the law has stated that **pedestrians have the right-of-way**; but many drivers ignore this law. To ensure safety, this law must to be enforced; as well as the enforcement of speed limits. Studies have proven that motorists' speeds are directly proportional to the number of pedestrian deaths that occur. Reduced speeds give pedestrians more time to see and react in a timely manner. Pedestrians feel unsafe and will opt not to use sidewalks in areas where traffic laws are not enforced.



The Town of West Jefferson Police Department initiated a bicycle patrol unit in 2007. Police officers on bicycles should be a major factor in ensuring safe pedestrian practices on the streets of downtown, during community and school events, and as a part of a possible future greenway system.

As the pedestrian network expands to include the schools within the Town, it will be necessary to ensure safety oversight as school crossings and within the school zones. Crossing guards should be present at all official school crossings, along with approved school crossing signage and signals. The crossing guards should be trained using NCDOT's Crossing Guard Training Program. The police department needs to provide a regular schedule of oversight of traffic during school hours in school zones. Any infractions within the school zone must be penalized to discourage future infractions and help to ensure the safety of the children.

- END OF SECTION -



SECTION SEVEN

PROJECT DEVELOPMENT

Section 4 of the West Jefferson Pedestrian Plan provided a *vision* for a comprehensive pedestrian system for the Town of West Jefferson. Section 7 of the Plan provides a *blueprint* for the Town of West Jefferson to assist them in implementing that vision. Section 7 identifies specific opportunities/strategies and provides a series of action steps to guide the Town as it begins to execute the Plan. The projects proposed in Section 4 are prioritized in this section in order to present the Town with a project schedule that is manageable. This section closes with ideas and sources for funding the projects.

7.1 OPPORTUNITIES

An opportunity is a situation or condition that is favorable for the attainment of a goal. The most obvious (of the opportunities for the Town of West Jefferson in attaining the goals set out in this Plan) is the already existing network of pedestrian facilities. The existing facilities consist of a small network of sidewalks and destination points, which are already attracting pedestrian traffic. The fact that people are already using these limited facilities makes it easier to promote the expansion of the network into a comprehensive, connected, and safe pedestrian system.

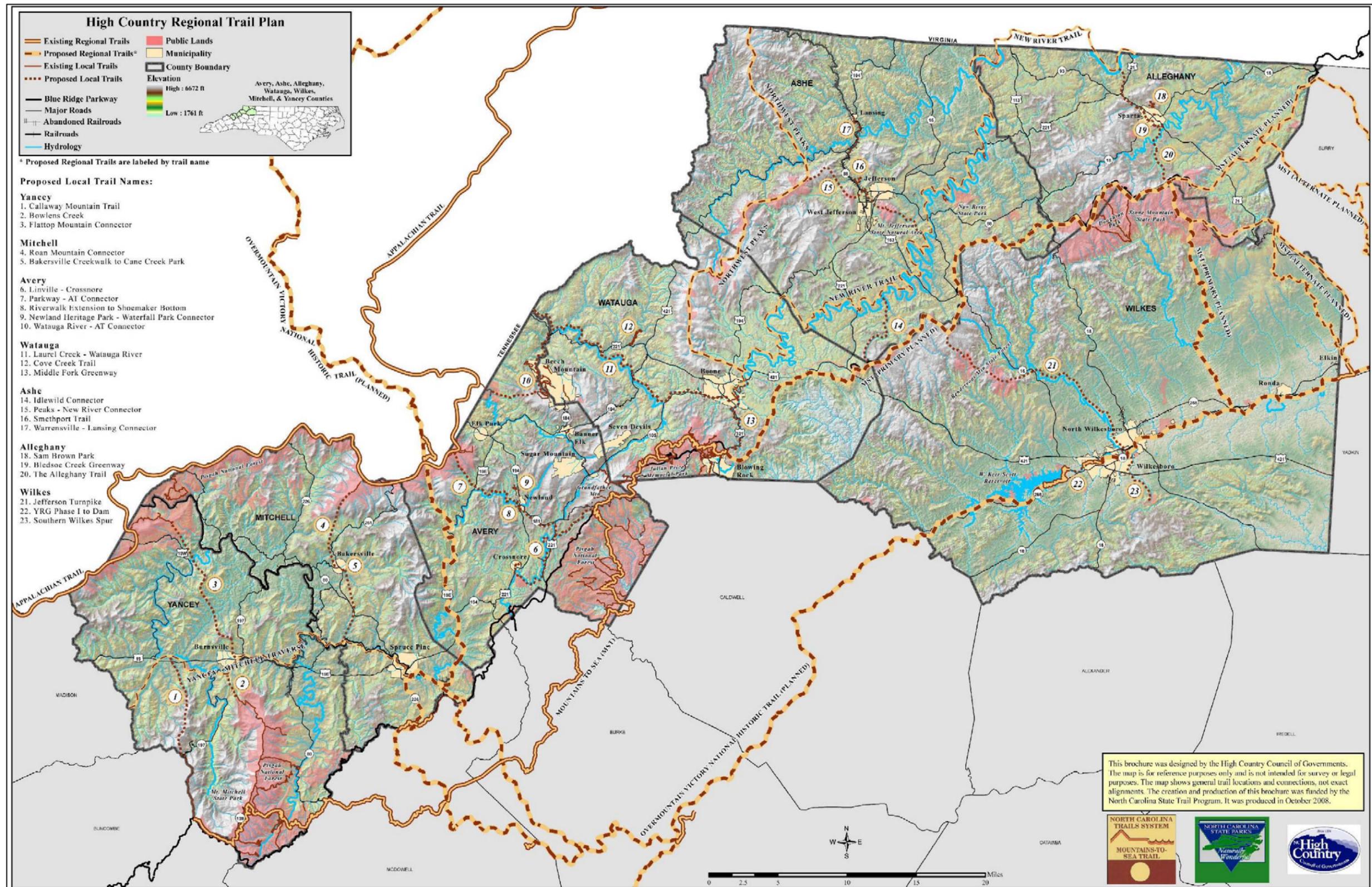


A strongly committed group of individuals interested in the development of a pedestrian network for the Town of West Jefferson yields another opportunity for attaining the stated goals of this plan. Members of the Steering Committee, Town employees, and users of the existing pedestrian network provide West Jefferson with a core group of advocates, who can promote the plan and recruit needed volunteers and supporters.

Regional initiatives such as the High Country Council of Governments (HCCOG) Regional Trails Plan provide the West Jefferson with additional opportunities to tie their pedestrian network into a regional network of connecting open space, natural areas, and historic sites into a region-wide trails system. By embracing these initiatives and working with regional organizations, the Town can find alternate funding sources, connect to the regional pedestrian trail and greenway systems (as shown in the following map), and increase community support.



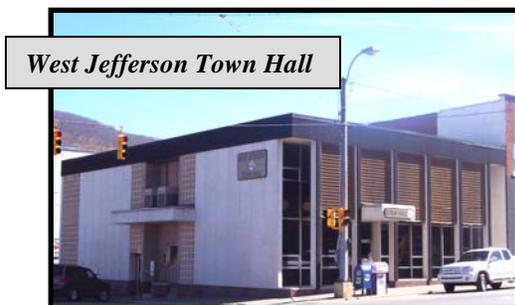
High Country Regional Trail Plan





7.2 ACTION STEPS

In order to implement the West Jefferson Comprehensive Pedestrian Plan, the following steps need to be taken:



- Adopt the Plan. The first step in implementing the Pedestrian Plan is the adoption of the plan by the Town Council. Adoption of the plan will allow the Town of West Jefferson to effectively influence regional decisions, so that the Town and region concur with the goals set forth in the plan. Adopting the plan will also provide the Town with greater authority to shape local land-use decisions.
- Create an Oversight Committee. An Oversight Committee consisting of Town Staff and representatives from various other staffs (such as Ashe County, High Country Council of Governments, etc.) will oversee the implementation of the plan.
- Develop a funding strategy. In order to undertake the proposed projects and secure adequate funding, it will be necessary to develop a funding strategy. The strategy should allow the community to incrementally complete each of the suggested pedestrian facility improvements over a ten-year (10-year) period. Opportunities are listed below:
 1. *The Capital Improvement Plan (CIP) needs to include yearly appropriations for sidewalk, crosswalk, and greenway development.*
 2. *The annual operating budget needs to include monies for minor construction and maintenance of pedestrian facilities.*
 - *The Town should consider issuing a local municipal bond with monies allocated towards the pedestrian system.*
 3. *Actively pursue the addition of roads within the Town via NCDOT's TIP program for sidewalk and greenway development and improvement.*
 4. *Community Development Block Grants (CDBG) can provide money for capital improvements such as sidewalks and greenways in low-income neighborhoods.*
 5. *Pursue funding from the sources listed in Section 7.6 Funding Opportunities.*



- Begin improvements and/or new construction. The work on the project(s) should begin with those listed as High Priority in Section 7.4
- Develop education and awareness programs. These programs will help to inform the public about the proposed projects and increase public support for them.
- Acquire property and/or easements. Develop a plan for acquiring the land and easements necessary for the West Jefferson Greenway System.
- Coordinate with other governing entities. Work with other government agencies



such as with Ashe County, the High Country Council of Governments, and the State of North Carolina to integrate the Town of West Jefferson's Pedestrian Plan with other transportation,

land use, economic development, parks and recreation, environmental, and community planning efforts.

- Modify policies. Update the Town of West Jefferson's Zoning Ordinances to contain strong, carefully-considered policies and goals that will promote the development of pedestrian facilities as part of any *new* development or redevelopment.
- Connect to adjacent facilities. Schedule road or utility work to include improvements and additions to the adjacent pedestrian network, where possible.
- Identify supporting policies and guidelines. The NCDOT Division of Bicycle and Pedestrian Transportation has published a guidebook on General Statutes, Ordinance, and Resources with regard to bicycle and pedestrian laws. This is a great resource, which pertains - not only to responsibilities for bicyclists and pedestrians - but also, for motorists. This guide should be incorporated into the standards for the Town of West Jefferson. It is particularly valuable for teaching public safety to school children.



Roadway does not conform to pedestrian standards



As mentioned in previous sections of this document, the street design guidelines need to conform to NCDOT standards. In addition to NCDOT standards, the Manual on Uniform Traffic Control Devices (MUTCD) should also be a reference for projects, particularly existing roadways that have not conformed to these standards. Areas such as traffic intersections will need to incorporate these guidelines for future improvements.



The American Association of State Highway and Transportation Officials (AASHTO) have published the 'Guide for the Planning, Design, and Operation of Pedestrian Facilities'. The purpose of this guide is to provide assistance with the planning, design, and operation of pedestrian facilities along streets and highways. Specifically, the guide focuses on identifying effective measures for accommodating pedestrians on public right-of-ways. This useful tool can be used to provide user-friendly pedestrian facilities along roadways.

- Develop an evaluation/monitoring process. Each year the Town should evaluate the progress made in implementing proposed improvements suggested in this Pedestrian Plan. This evaluation should not only include new facilities; but also, repair to existing facilities. At the beginning of the budget process for the next fiscal year, the Town should determine the projects to be implemented for that year. In some cases, there may be large projects that will limit the number of tasks the Town can feasibly commit to implementing.

7.3 PRIORITIZATION OF THE PROPOSED PEDESTRIAN NETWORK

The Proposed Project List can be found in the Appendix. The maps suggest priorities for the construction of pedestrian facilities located within the Town limits. In addition to prioritization, the list delineates the location, length, cost, and potential funding means for each project. As mentioned earlier in this section, sidewalk improvements make up the majority of project costs for the proposed improvements. The priorities established are based primarily on need, safety, and connectivity.

The Town of West Jefferson and NCDOT are the primary agencies that will be involved with these pedestrian improvements. Many of these facilities are located on NCDOT public right-of-ways and are eligible to receive funding for NCDOT improvements. As new development or redevelopment occurs, it will be important for the Town of West Jefferson to require the owners to implement the appropriate pedestrian facilities, as necessary.



Prioritization of Projects

The priorities of the pedestrian plan are divided into three (3) different categories of priorities: high, medium, and low. A priority calculator was used to help determine the priority ranking of each project.

The priority calculator was based on three (3) factors: Safety, Connectivity, and Recommendations from the Project Oversight Group (P.O.G.). Each factor was broken down into categories. The categories were given a scale of numeric values.

Pedestrian corridors were then given a numeric value in each category. The total number of points provided a ranking to each corridor. The corridors were then grouped by thirds (approximately) to determine high, medium, or low rankings.

Priority Calculator Results

High Priority Projects

Some of the needed facilities or improvements that received high priority rankings were:

- A lack of sidewalks - forcing pedestrians out onto roads with medium to high volumes of traffic
- A lack of crosswalks and/or pedestrian signals at busy intersections that are commonly traversed by pedestrians
- Sidewalks that are in poor condition - creating hazards for pedestrians
- Lack of safety and accessibility amenities at intersections
- Lack of connectivity to high priority destinations, such as medical facilities and schools

Moderate Priority Projects

Moderate priority projects are designed to create a cohesive pedestrian network – with the use of the *existing* system. Some of the projects involve filling in missing gaps; others, additional safety issues that arise from the expansion of the network.

Low Priority Projects

The final category contains the low priority corridors. These areas are important to the Town - but due to economic factors, may not be feasible to implement the facilities within the 10-year time frame. These facilities are located primarily in residential neighborhoods and connect to other existing/proposed sidewalks that are of high or moderate priority. A long-range time period will be allowed for the implementation of pedestrian facilities in the low priority areas. As different areas in and around the Town of West Jefferson develop, priorities may change in the coming years.



Town of West Jefferson Comprehensive Pedestrian Plan 2010 Priority Calculator														
Point Range	Existing Corridor Ped. Facility Condition	Accessible Ped. Facilities	Traffic Volume	Traffic Speed	Accident History # (4)	POG/Public Recommendation	Safety Score	Schools # (4)	Medical Facilities 1-3	Recreation/Leisure 1-3	Retail Center 1-3	Downtown 1-2	Connectivity Score	Total Score
High Priority														
Bus. Hwy 221*	3	2	4	4	0	2	15.0	4	1	3	3	2	13	28.0
Mt. Jefferson Road	3	2	1	3	0	2	11.0	4	1	2	3	1	11	22.0
Jefferson Avenue*	2	1	4	2	0	2	11.0	0	1	3	3	2	9	20.0
Campus Drive	3	2	1	2	0	2	10.0	4	1	2	1	1	9	19.0
Back Street	3	2	1	2	0	2	10.0	0	1	3	3	2	9	19.0
Medium Priority														
2nd Street	3	2	2	2	0	1	10.0	0	1	2	3	2	8	18.0
Beaver Creek School Road	3	2	1	4	0	2	12.0	0	1	1	3	1	6	18.0
Main Street	2	2	1	2	0	2	9.0	0	1	2	3	2	8	17.0
6th Avenue	3	2	1	2	0	1	9.0	0	1	1	2	2	6	15.0
Low Priority														
Hice Avenue	3	2	1	2	0	2	10.0	0	1	1	1	2	5	15.0
Hamilton Avenue	3	2	1	2	0	2	10.0	0	1	1	1	2	5	15.0
School Avenue	3	2	1	2	0	1	9.0	0	1	1	1	2	5	14.0
Long Street	3	2	1	2	0	1	9.0	0	1	1	1	2	5	14.0
Northern West Jefferson Greenway						2	2.0	0	1				1	3.0
Ray Taylor Road - Jefferson Avenue Connector						2	2.0	0	1				1	3.0
Gallery Alley						1	1.0	0	1				1	2.0

* = Sidewalks may have been divided by side of street, low priority automatically given to less prominent side of street per Steering Committee Recommendation

Point Range Key

- Safety**
- Existing Ped. Corridor Facility Condition: 1=Good, 2=Fair/incomplete, 3=None/Poor
- Major Intersection Facilities: 1=Exists, 2=None
- Traffic Volume: 1=0-4,999, 2=5,000-9,999, 3=10,000-11,999, 4=12,000+
- Traffic Speed: 1=Under 25mph, 2=25-34mph, 3=35-44mph, 4=45+mph
- Accident History: The number of reported accidents in 10 years X 4
- Other**
- POG/Public Recommendation: 1=Not from POG or public recommendations, 2=A POG or Public Recommendation
- Connectivity**
- Schools: The number of schools located along the corridor
- Medical Facilities: 1=None, 2=Clinics, Private Med. Offices, 3=Hospital or EMS station
- Recreation/Leisure: 1=None, 2=(1) park/rec. facility, 3=(2+) park/rec. facility
- Retail Destinations: 1=None, 2=(1-4) retail locations, 3=(4+) retail locations
- Downtown: 1=Not in Downtown, 2=Within downtown

The higher the overall score the higher the need for pedestrian facilities, thus higher the priority rating.

The proposed improvements incorporate planning initiatives from other agencies (NCDOT and High Country Council of Governments) that affect the Town of West Jefferson. It will be essential to continue cooperation with these and other entities that can enhance the pedestrian network within the Town of West Jefferson and the surrounding communities. As additional needs are identified in the future, communication with these agencies will help with the coordination of future projects.

The West Jefferson Pedestrian Plan proposes numerous pedestrian projects composed mainly of sidewalks, multi-purpose trails, and intersection improvements. In order to develop an action plan that is manageable, the recommendations have to be separated



into projects that will be implemented on an annual basis. Each fiscal year, the Town should identify specific projects and allocate funding for them. There are numerous funding mechanisms to assist with costs. The acquisition of funds will be an important component in the completion of the identified projects.

Sidewalk Projects

The majority of the proposed improvements for the West Jefferson Pedestrian Plan consist of the repair or construction of concrete sidewalks. These are considered to be *on-road construction projects*. A priority list identifying sidewalks can be found above. Standards for the construction of the sidewalk projects can be found in Section 5: Design Guidelines. As many of the proposed facilities are located on NCDOT roadways, the Town of West Jefferson will need to receive an approval for all permitting and construction documents for this work *prior* to construction.

The West Jefferson Greenway

Multi-purpose trails such as the proposed West Jefferson Greenway Network are designated as *off-road construction projects*. These trails are typically 8 to 10 feet wide and allow for biking, which is not permitted on sidewalks. This pedestrian plan proposes a greenway corridor - creating a network that can connect into similar projects initiated by immediate neighboring communities. The completion of this project would prove to be an important asset to both the West Jefferson and Jefferson communities by providing a clear and safe route between the two towns as well as creating a possible attraction that could increase the number of visitors to the area.

The West Jefferson Greenway is a project that could get support from the NCDOT as 221 is improved. The proposed Northern West Jefferson Greenway would also serve to provide a much-needed east/west pedestrian corridor serving to connect the downtown area with the growing area on the other side of Highway 221 along Mt. Jefferson Road. In order to proceed with such a project the Town of West Jefferson would need to cooperate with local land owners and research possible routes along utility easements or other available land before further developing this multi-purpose connector.

Please see the priorities list on page 7 of this section.

7.4 ANCILLARY FACILITIES AND PROGRAMS

There are many ancillary facilities and programs that West Jefferson can initiate or participate in. Many of these initiatives are relatively inexpensive. Signing/mapping projects and safety/enforcement programs can be performed through in-house services.



Partnering with other organizations such as the Ashe County Public Health Department, Ashe County Transportation Authority (ACTA), the Ashe County School System, the High Country Council of Governments, civic groups, and health-based companies will allow promotional programming and transit interface programs.

Expanded Transportation Options

The Town of West Jefferson needs to work with the Ashe County Transportation Authority (ACTA) to expand the existing transportation service to increase needed services for the citizens of the Town. An expansion in the transit system should correspond with the needs of residents.

Education Programs

Several state and national program guidelines are available for educating the public about pedestrian safety (see Section 6.4). These programs focus on law enforcement, pedestrians, and drivers. The Town of West Jefferson should work with the Ashe County School System and the West Jefferson Police Department to provide safe walking programs for the children and adults of West Jefferson. Some of the resources available for use are:

National Center for Safe Routes to School – The Center offers a number of resources and information on how to start a Safe Routes to School program.

Walking School Bus – A program under the auspices of the National Center for Safe Routes to School, the Walking School Bus combines safety, community awareness, healthy exercise, and fun to help educate children and adults on pedestrian safety.

A Guide to the North Carolina Bicycle and Pedestrian Laws – This guide is intended for use by law enforcement officials, educators, planners, and citizens for education/enforcement of North Carolina pedestrian laws.

Healthy Communities Program

The Town of West Jefferson, the Ashe County Health Department, the Town of Jefferson, the Ashe County Healthy Carolinians (ACHC), Ashe Services for Aging, Inc. (ASA), and Ashe Memorial Hospital should



Healthy Communities Program should include input from Ashe Memorial Hospital



join together in promoting and furthering the Health Department's goals and programs. A Healthy Communities program could encourage walking as healthy exercise. This program would recruit churches, civic organizations, and neighborhood associations to organize and promote walking for better health. The program should also include pedestrian education.

Wayfinding

As pedestrian facilities are completed, they need to be incorporated into a Wayfinding System for West Jefferson. Walking maps that highlight pedestrian routes should be developed to educate pedestrians as to the various routes available. Maps of primary pedestrian corridors can be made available at local government and retail centers. A uniform system of signage should be installed to direct pedestrians to destination points. Traffic signs should be installed that alert motorists to the pedestrian network (see Section 5: Design Guidelines.)

Spot Improvement and Maintenance Program

The Spot Improvement and Maintenance Program will most likely be the responsibility of the Town of West Jefferson Public Works Department. The Department needs to develop a regular schedule of inspection and repair to the various elements of the pedestrian network - including sidewalks, crosswalks, signage, and street furniture. In addition, the Department (itself) can make several of the spot improvements on the proposed project list. Some of the tasks that can be undertaken by the Maintenance Department include:

- Repair/install small areas of sidewalk or multi-purpose trail
- Repair retaining walls
- Install, repair, or replace signage
- Remove (or supervise removal) of litter
- Maintain landscaping
- Inspect/repair pedestrian amenities (benches, trash receptacles, etc.)



Maintenance Dept. can assist Town



Spot improvements will suffice in some areas of Town

7.5 STAFFING

The Town Administrator and Planning Department staff will serve as the major catalysts for the development of West Jefferson's pedestrian system. These departments will guide the Town in the planning, design, construction, and funding of



pedestrian facilities. They will also facilitate cooperation between the various agencies, which were mentioned in Section 7.4

The Town Public Works Department will be a vital component in the implementation of projects and in the maintenance of those facilities that are the Town's responsibility. The Planning Board and Town Council will need to be advocates of pedestrian planning. Each fiscal year the Town should implement pedestrian improvements as part of the Town's general budget.

The Pedestrian Steering Committee was an integral component in developing recommendations for the Pedestrian Plan. It is recommended that an ongoing Oversight Committee be created to evaluate the pedestrian facilities and programs on an annual basis. An evaluation program is too comprehensive for just one individual to perform; such a program will require a group working together to conduct the evaluation. The Oversight Committee could also be responsible for recruiting volunteers and civic groups to assist with programming and simple maintenance tasks (such as litter removal). Maintenance issues and problems can often be addressed through the Oversight Committee and it, in turn, can inform the Town of complaints from local residents and visitors.

The West Jefferson Police Department will assume tasks related to pedestrian safety. This includes education, enforcement of traffic and pedestrian laws, and crime prevention. The Department should also maintain a record of all accidents involving pedestrians in order to address necessary improvements to the pedestrian network that might develop after the adoption of this plan.

7.6 FUNDING OPPORTUNITIES

Funding for the implementation of proposed projects can be overwhelming - particularly with increasing construction costs. Therefore, prioritization will aid in the completion of the proposed tasks. The projected construction cost estimates for all the proposed projects is summarized in the table below.

Prioritized Facility Cost Estimates

Priority	Sidewalk/Pedestrian Facilities
High	\$1,910,900
Medium	\$316,150
Low	\$2,064,260
Total	\$4,291,310

A more detailed listing of the projects, their priority status and approximate costs are listed below in the Preliminary Cost Estimates.



Town of West Jefferson												
Comprehensive Pedestrian Plan 2010												
Preliminary Cost Estimates												
High Priority Corridors - GAPS												
Type of Facility	Primary Pedestrian Corridor	From	To	Length of 5' Sidewalk (\$50 per lf)	Length of 10' Greenway (\$130 per lf)	Curb Ramps (\$1,000 ea.)	Crosswalks (\$200 ea.)	Traffic Signals (\$40,000 ea.)	Pedestrian Signals (\$2,400 ea.)	Probable Cost Estimate	NCDOT TIP Project	
Bus. Hwy 221												
1	Sidewalk	Bus. Hwy 221 (North Side)	Mt. Jefferson Rd.	Doggett Road	2,430		2			\$123,500		
2	Sidewalk	Bus. Hwy 221 (North Side)	Doggett Rd.	6th Avenue	1,770		8			\$96,500		
3	Sidewalk	Bus. Hwy 221 (North Side)	6th Avenue	Jefferson Avenue	978		2		3	\$58,700		
Subtotal Sidewalk Improvements					5,178					\$278,700		
Mt. Jefferson Road												
1	Sidewalk	Mt. Jefferson Road (West Side)	Hwy 221	Mt. Jefferson St. Park Road	2,436		4			\$126,200		
2	Sidewalk	Mt. Jefferson Road (West Side)	Mt. Jefferson St. Park Road	Campus Drive	1,562		4		1	\$84,900		
3	Sidewalk	Mt. Jefferson Road (West Side)	Campus Drive	Hwy 221 Access	2,601		2			\$132,050		
4	Sidewalk	Mt. Jefferson Road (West Side)	Hwy 221 Access	Oakwood Drive	1,164		2			\$60,200		
5	Sidewalk	Mt. Jefferson Road (East Side)	Mt. Jefferson St. Park Road	Campus Drive	1,562					\$78,100		
6	Sidewalk	Mt. Jefferson Road (East Side)	Campus Drive	Hwy 221 Access	2,601					\$130,050		
7	Sidewalk	Mt. Jefferson Road (East Side)	Hwy 221 Access	Oakwood Drive	1,164					\$58,200		
Subtotal Sidewalk Improvements					6,116					\$669,700		
Jefferson Avenue												
2	Spot Improvement	Jefferson Avenue (East Side)	2nd Street	Hamilton Street			8		2			
7	Sidewalk	Jefferson Avenue (East Side)	6th Street	4th Street	312		4			\$19,600		
8	Sidewalk	Jefferson Avenue (East Side)	Hamilton Street	Stringer Drive	3,131		3			\$159,550		
9	Sidewalk	Jefferson Avenue (East Side)	Stringer Drive	Hampton Inn Driveway	2,673		1			\$134,650		
Subtotal Sidewalk Improvements					6,116					\$313,800		
Backstreet												
1	Sidewalk	Backstreet (West Side)	2nd Street	Main Street	535		1		1	\$27,950		
2	Sidewalk	Backstreet (West Side)	Main Street	Ashe Street	545		1		2	\$28,650		
3	Sidewalk	Backstreet (East Side)	2nd Street	Main Street	530		2		1	\$28,700		
4	Sidewalk	Backstreet (East Side)	Main Street	Ashe Street	540		3		2	\$30,400		
Subtotal Sidewalk Improvements					2,150					\$115,700		
Campus Drive												
1	Sidewalk	Campus Drive	Hwy. 221	DOT R.O.W.	500					\$25,000		
2	Sidewalk	Campus Drive	DOT R.O.W.	Ashe. Co. High Sch.	509					\$25,450		
Subtotal Sidewalk Improvements					1,009					\$50,450		
Total Pedestrian Improvements for High Priority Corridors					20,569					\$1,428,350		

Medium Priority Corridors												
			From	To	LF of New or	Length of 10'	# of Curb Ramps	Crosswalks	Traffic	Pedestrian	Probable Cost	NCDOT TIP
2nd Street												
1	Sidewalk	2nd Street	Jefferson Avenue	Church Avenue	895						\$44,750	
Subtotal Sidewalk Improvements					895						\$44,750	
Beaver Creek School Road												
1	Sidewalk	Beaver Creek School Road	Jefferson Avenue	Ashmont Drive	899		2				\$46,950	
2	Sidewalk	Beaver Creek School Road	Ashmont Drive	St. Mary's Drive	1,438		1				\$72,900	
3	Sidewalk	Beaver Creek School Road	St. Mary's Drive	Ray Taylor Road	611		1				\$31,550	
Subtotal Sidewalk Improvements					2,948						\$151,400	
Main Street												
1	Sidewalk	Main Street	Backstreet	Chruch Avenue	610						\$30,500	
1	Sidewalk	Main Street (South Side)	Backstreet	6th. Avenue			4		3		\$4,600	
Subtotal Sidewalk Improvements					610						\$35,100	
6th Avenue												
1	Sidewalk	6th Avenue	Main Street	Hwy. 221	790						\$39,500	
Subtotal Sidewalk Improvements					790						\$39,500	
Total Pedestrian Improvements for Medium Priority Corridors					5,243						\$270,750	

Low Priority Corridors												
			From	To	LF of New or	Length of 10'	# of Curb Ramps	Crosswalks	Traffic	Pedestrian	Probable Cost	NCDOT TIP
Hice Avenue												
1	Sidewalk	Hice Avenue	Hamilton Street	Red Oak Avenue	555						\$27,750	
Subtotal Sidewalk Improvements					555						\$27,750	
Hamilton Avenue												
1	Sidewalk	Hamilton Avenue	Jefferson Avenue	Hice Avenue	285						\$14,250	
Subtotal Sidewalk Improvements					285						\$14,250	
School Avenue												
1	Sidewalk	School Avenue	N. 6th Avenue	Hice Avenue	336						\$16,800	
Subtotal Sidewalk Improvements					336						\$16,800	
Long Street												
1	Sidewalk	Long Street	Jefferson Avenue	Calvin Avenue	908						\$45,400	
2	Sidewalk	Long Street	Calvin Avenue	Church Avenue	599						\$29,950	
Subtotal Sidewalk Improvements					1,507						\$75,350	
Gallery Alley												
1	Sidewalk	Gallery Alley	Hwy. 221	Main Street	500			1			\$25,200	
Subtotal Sidewalk Improvements					500						\$25,200	
Northern West Jefferson Greenway												
1	Greenway	Northern West Jefferson Greenway	Hwy. 221	Mt. Jefferson Road		2,839					\$369,070	
2	Greenway	Northern West Jefferson Greenway	Mt. Jefferson Road	Campus Drive		4,282					\$556,660	
3	Greenway	Northern West Jefferson Greenway	Campus Drive	Cresent Lane		4,891					\$635,830	
Subtotal Greenway Improvements						12,012					\$1,561,560	
Bus. 221												
1	Sidewalk	Bus. Hwy 221 (South Side)	Greenway	6th Avenue	666		2		1		\$35,500	
1	Sidewalk	Bus. Hwy 221 (South Side)	6th Avenue	Jefferson Avenue	507		4				\$29,350	
Subtotal Sidewalk Improvements					1,173						\$64,850	
Jefferson Avenue												
1	Sidewalk	Jefferson Avenue (West Side)	6th Street	2nd Street	1,472		4				\$77,600	
1	Sidewalk	Jefferson Avenue (West Side)	2nd Street	Hamilton Street			4		4		\$4,800	
1	Sidewalk	Jefferson Avenue (West Side)	Hamilton Street	Stringer Drive	3,131		9		2	1	\$168,350	
1	Sidewalk	Jefferson Avenue (West Side)	Stringer Drive	Speaks Drive	2,673		2				\$135,650	
1	Sidewalk	Jefferson Avenue (West Side)	Speaks Drive	Hwy. 221 B.Y.P.	1,575		5		2	1	\$86,550	
Subtotal Sidewalk Improvements					8,851						\$472,950	
Ray Taylor Road - Jefferson Avenue Greeway Connector												
To	Greenway	Ray Taylor Road - Jefferson Avenue Greeway Connector	Jefferson Avenue	Church Avenue		2,595	6				\$343,350	
Subtotal Greenway Improvements						2,595					\$343,350	
Total Pedestrian Improvements for Medium Priority Corridors					13,207	14,607					\$2,602,060	



With a very talented and capable Town Staff, West Jefferson has the ability to accomplish many of the proposed improvements within their department(s). Spot improvements such as ADA compliant curb ramps, repair to damaged sidewalks, and small sidewalk projects can be accomplished by Town Staff, which will dramatically decrease the costs of these projects.

The cost of the sidewalk applications will vary depending upon the choice of contractor, the scope of the project, and the cost of materials. The probable costs associated for implementing this work is \$4,291310 for all initial pedestrian improvements.

Funding will be a large component in the process of developing West Jefferson's pedestrian facilities. The Town will need to be aggressive in applying for funding every year for individual projects. Monies can be a combination of grants, contributions, bonds, and other methods. The cost of curbs, ramps, crosswalks, pedestrian signals, and traffic signals can be shared with NCDOT. In addition, proposed improvements that are a part of a larger NCDOT project can be funded as an "incidental" project by NCDOT. The Town can work with NCDOT to have them install the proposed sidewalks and intersection improvements as approved by the Town.



Grants, in particular, will be an important mechanism for funding. The projects, which are to be submitted for grants, need to reflect the objectives specified with each individual grant. Grants are typically oriented toward connectivity to a specific arena – such as education, recreation, or safety.

Connectivity to recreational areas are often funded by grants

A variety of funding opportunities are available to West Jefferson as the Town prepares for future improvement/development of its pedestrian system. Following is a list of funding sources that have been utilized by other communities for pedestrian projects. Each of these will be addressed in this section.

- Taxation
- Bonds
- Grants
- User Fees
- Contributions
- Foundations
- Homeowner Assessment



Taxation

Traditionally, *ad valorem tax revenue* has been the primary source of funding for the pedestrian facilities of properties/facilities owned by municipalities and counties. 'Pedestrian opportunities' are considered a public service and often are *standard line items* on general fund budgets. Creative financial opportunities are possible; however, ad valorem taxes will continue to be the major revenue source to support the system. As such, communities often vote to raise their local tax rate temporarily in support of their pedestrian systems. Some possible tax funding strategies are:

Sales Tax – local county governments are authorized to implement a local sales tax. These taxes are typically used for a variety of projects within the county. The increase in local sales tax must be approved by the state government. The sales tax may be implemented for a fixed period of time and then expire.

Property Tax - because of concern by local home owners, increases in property taxes should be addressed with care. *Property Tax Increase* must have wide public support for the resulting project. Such funds are often used to pay debt service on general obligation bonds that were issued for land acquisition(s).

Excise Taxes - excise taxes are levied on specific goods and services and are to be used for specified purposes. In general, these taxes are levied to achieve funds for the promotion of tourism or transportation, which include pedestrian facilities.

Occupancy Tax – occupancy taxes are levied by local governments on hotel and motel rooms. The funds are typically used for the promotion of tourism and related activities.

North Carolina Conservation Tax Credit (N.C.CTC)

This program provides an incentive (in the form of an income tax credit) for landowners that donate interests in real property for conservation purposes. Property donations can be fee simple or in the form of conservation easements or bargain sale. The goal of this program is to manage stormwater, protect water supply watersheds, preserve working farms and forests, and set aside greenways for ecological communities, public trails, and wildlife corridors. The website is <http://ncctc.enr.state.nc.us/>.

Bonds

Many communities issue *bonds*, which are typically approved by the shareholders, to finance site development and land

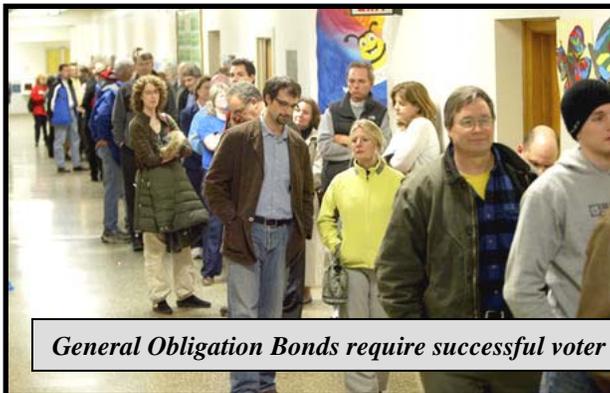




acquisition costs. The State of North Carolina grants municipal governments the authority to borrow funds through the issuance of bonds - the amount of which is not to exceed the cost of acquisition or the cost for improvement of pedestrian facilities. Total bond capacities for local governments (for pedestrian facilities) are limited to a maximum percentage of assessed property valuation. Since the issuance of bonds relies on the support of the voting population, the implementation of awareness programs is absolutely essential *prior* to a referendum vote. This method can be used for specific projects such as the creation of multi-purpose trails within a greenway.

Revenue Bonds – Revenue Bonds are issued by government agencies or funds that generate operating revenues and expenses, much like a business. Repayment of the bond is limited strictly to revenues generated by the agency associated with the purpose of the bonds. Only the revenues specified in the contract between the bond holder and bond issuer are subject to use for repayment of the bond principal and interest.

General Obligation Bonds - General Obligation Bonds are the preferred financing approach by the North Carolina Local Government Commission and the general securities market - because these instruments are backed



by the full faith and credit of the issuer – which simply means that the bonds are representative of an encumbrance against the property tax base of the issuing jurisdiction and therefore offer the best

available security to the bond holder. The State of North Carolina gives the issuance of bonds that are not to exceed the total cost of improvements, including land acquisition. In view of the recommended capital improvements suggested in this plan, the borrowing of funds to develop new facilities may be necessary. Total bonding capacities for local governments is limited for parks and recreation to a maximum percentage of assessed property valuation.

The following are key factors to consider when evaluating the use of General Obligation Bonds for financing:

- In North Carolina, the issuance of General Obligation Bonds requires a referendum of the voters within the issuing jurisdiction.
- The term of the debt may be extended to 20-30 years.



- The debt is publicly sold. Therefore, there are costs associated with the sale that generally total 3% to 5% of the total bond principal. The issuance costs offset the lower interest rate so this instrument becomes more attractive as the size of the issuance increases and the issuance costs are spread over the larger debt. It has been found that this financing option becomes financially superior as the debt principal exceeds \$10-\$12 million.
- Prepayment of the debt can generally not be accomplished until reaching a call date, which is generally around 75% of debt retirement.
- Failure of the General Obligation Bond to be ratified by referendum could mean that the County could not go forward with an alternative approach to financing without substantially changing the scope of the project.

Special Assessment Bonds – Special Assessment Bonds are municipal bonds used to fund a project that benefits a specific neighborhood or community. The neighborhood or community then repays the bond through the levy of additional taxes or fees on the property owners who have benefited from the improvements.

Grants

State and federal agencies offer funding opportunities to assist municipalities in the financing of their pedestrian projects - including greenway trails. These sources of funding should definitely be investigated and pursued by the Town of West Jefferson for present and future improvements.

State Agencies

North Carolina Department of Transportation Grants

Bicycle and Pedestrian Independent Projects Funded Through the Transportation Improvement Program (TIP)

NCDOT has established priorities that are addressed in the 2006-2015 Traffic Improvements Program (TIP). The projects are identified within the “Region D” thoroughfare plan, which includes Ashe County (as published in September, 1993). The program identifies long-range projects of varied scopes, small to multi-million dollar facility improvements. The projects identify location, phase, and schedule.



Pedestrian facility projects are divided into two (2) categories within the TIP - *independent* projects and *incidental* projects. Independent projects are those which are not related to a 'scheduled' highway project. Incidental projects are those related to a 'scheduled' highway project.

NCDOT TIP - Independent projects:

\$6 million is appropriated annually for the construction of pedestrian and bicycle improvements that are independent of scheduled highway projects in communities throughout the state. 80% of these funds are derived from the Surface Transportation Program (STP) - Enhancement Funds, while state funds make up the remaining 20%. Currently, \$1.4 million is appropriated annually for pedestrian hazard elimination projects in the NCDOT highway divisions. \$200,000 is allocated for the Division of Bicycle and Pedestrian Transportation for projects such as training workshops, pedestrian safety and research projects, and other pedestrian needs statewide.

NCDOT TIP - Incidental projects:

Bicycle accommodations, such as bike lanes, widened shoulders and



safety-designed bridges are quite frequently included as incidental features of highway construction projects. In addition, bicycle-safe drainage grates are a standard feature of all highway construction. Most all of the pedestrian safety accommodations built by NCDOT are included as part of scheduled highway improvement projects and funded with

a combination of federal and state roadway construction funds.

http://www.ncdot.org/transit/bicycle/funding/funding_categories.html

NCDOT Enhancement Program

The NCDOT Enhancement Program is a federally funded program designed to improve the aesthetic, cultural, and environmental transportation experience in communities throughout North Carolina. Monies are allocated within the various programs of the NCDOT. The Enhancement Unit distributes their portion through the Call for Projects process. The goals of the program are to encourage diverse modes of travel, increase benefits to communities, and encourage citizen involvement.



The following *activities* are funded under this program:

- Bicycle and Pedestrian Facilities
- Bicycle and Pedestrian Safety
- Acquisition of Scenic Easements, Scenic or Historic Sites
- Scenic or Historic Highway Programs (including tourist or welcome centers)
- Landscaping and other Scenic Beautification
- Historic Preservation
- Rehabilitation of Historic Transportation Facilities
- Preservation of Abandoned Rail Corridors
- Control of Outdoor Advertising
- Archaeological Planning and Research
- Environmental Mitigation
- Transportation Museums



Enhancement Program funds preservation activities

Allowable pedestrian *projects* include:

- The construction of new sidewalks and walking trails/paths
- Pedestrian safety training and related training materials
- Acquisition of land with a significant aesthetic, natural, visual, or open space value to preserve a scenic viewshed
- Acquisition of land around a historic site
- Planning and transaction costs that lead to the purchase/protection of easements/properties
- Linear highway landscaping
- The reintroduction of native or endangered plants or trees
- Streetscape projects

<http://www.ncdot.gov/programs/Enhancement/>

Governor's Highway Safety Program (GHSP)

Upon approval of specific project requests, GHSP funding is provided through an annual program to undertake a variety of pedestrian and bicycle safety initiatives. Amounts of GHSP funds vary from year to year, according to the specific amounts requested. The GHSP plans and supports several highway safety programs annually. 'Click It or Ticket' began in





1993 and has become the national model for an enforcement and education campaign (bearing the same name), which is operated by the National Highway Traffic Safety Administration. All funding from the GHSP is allocated for highway safety purposes only. The funding provided for this program has been described as 'seed money', which is money that is needed to get programs started. The grantee is expected to provide a portion of the project cost and is expected to continue the program after GHSP funding expires.

<http://www.ncdot.gov/programs/GHSP/>

Safe Routes to School Program (managed by NCDOT, DBPT)

A national and international movement, Safe Routes to School is designed to encourage children to walk or bike to school. Funded by the federal government, the North Carolina programs strive to facilitate the planning, development, and implementation of projects and activities that improve safety, reduce traffic, reduce fuel consumption, and reduce air pollution in the vicinity of schools.

Funding through the NCDOT is on a grant reimbursement basis. A total of 3.9 million dollars was made available in 2009 for both infrastructure and non-infrastructure programs. A third category, NCDOT Highway Division Funds, is available for infrastructure projects on state-maintained roads. These projects must be within two (2) miles of a school serving grades K-8 and are intended for safety improvements to walking/biking facilities.

http://www.ncdot.org/transit/bicycle/saferoutes/funding/funding_intro.html

Powell Bill Program

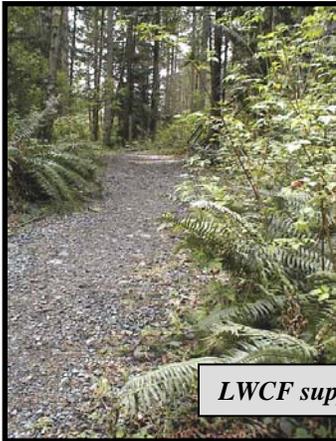
The Powell Bill or the North Carolina Street-Aid Allocations to Municipalities is a program of the North Carolina Department of Transportation. Allocations are made annually to municipalities that establish their eligibility and qualify as provided by G.S. 136-41.1 through 136-41.3. These funds can be used for planning, construction, and maintenance of sidewalks along public streets and highways.

http://www.ncdot.org/programs/Powell_Bill/



North Carolina Department of Environment and Natural Resources

Land and Water Conservation Fund – North Carolina (LWCF)



LWCF supplements outdoor recreational projects

A federally-funded program, LWCF was established for local and state governments in 1965 as a funding source for outdoor recreation development and land acquisition. LWCF monies are derived from the sale or lease of nonrenewable resources, primarily offshore oil/gas leases and surplus federal land sales. Acquisition and development grants may be used for a wide variety of outdoor projects such as bike trails, Town parks, tennis courts, outdoor swimming pools, and support facilities (roads, water supply, etc.). Facility design must be basic in nature

(as opposed to elaborate) and must remain accessible to the general public. No more than 50% of the project cost may be federally funded by LWCF, although all or part of the project sponsor's matching share may be obtained from certain other federal assistance programs.

<http://ils.unc.edu/parkproject/lwcf/home1.html>

North Carolina Ecosystem Enhancement Program

The NC Ecosystem Enhancement Program (EEP) combines a wetlands-restoration initiative by the N.C. Department of Environment and Natural Resources with ongoing environmental efforts by the Department of Transportation to restore, enhance, and protect its wetlands and waterways. EEP provides:

- High-quality, cost-effective projects for watershed improvement and protection
- Compensation for simply unavoidable environmental impacts associated with transportation, infrastructure, and the area's economic development
- Detailed watershed-planning and project-implementation efforts within North Carolina's threatened or degraded watersheds

It is typical for scout groups to adopt trails



http://www.enr.state.nc.us/html/tax_credits.html



North Carolina Division of State Parks

NC Adopt-A-Trail Grant Program

The North Carolina Division of State Parks awards \$108,000 each year to government agencies, nonprofit organizations, and private trail groups for trail projects, through the Adopt-a-Trail program. Funds may be used for building trails, signage and facilities, brochures, and maps.

http://www.ncparks.gov/About/grants/trails_grant.php

Recreational Trails Program (RTP)

The Recreation Trails Program (RTP) is an assistance program of the Department of Transportation's Federal Highway Administration (FHWA). RTP makes recreation funds available for state allocation – in the development and maintenance of recreation trails and trail-related facilities for both non-motorized and motorized recreation trail users. RTP funds are distributed to states by a legislative formula: half of the funds are distributed equally among all states and half are distributed in proportion to the estimated amount of non-highway recreational fuel used in each state. *Non-highway recreational fuel is the type that is typically used by snowmobiles, all-terrain vehicles, off-road motorcycles, and off-road light trucks.*



RTP assists with development of motorized recreation trails

North Carolina Parks and Recreation Trust Fund (PARTF)

PARTF was established for local governments and the North Carolina Division of Parks and Recreation in 1994 as a funding source for the development and/or improvement of parks and recreation facilities, as well



as for the purpose of land acquisition. A state-funded program, PARTF matches monies spent by municipalities on parks and recreation, with each sharing 50% of the cost. In 2004, the fund request was elevated from a maximum of \$500,000 to \$1,000,000. The Recreational Resources Service should be contacted for additional information at (919) 515-7118.

www.ncparks.gov/About/grants/partf_main.php

North Carolina Division of Forest Resources

Urban and Community Forestry Grant Program

This program is designed to assist local governments in preserving existing tree cover in communities and to effectively and efficiently manage urban and community forests. Tree planting projects need to be part of a larger project aimed at promoting and enhancing the existing tree cover in a community.

Projects with pedestrian network elements include:

- Development of a pocket park
- Greenway development
- Tree planting in low-income neighborhoods
- Master Tree Plans
- Neighborwoods

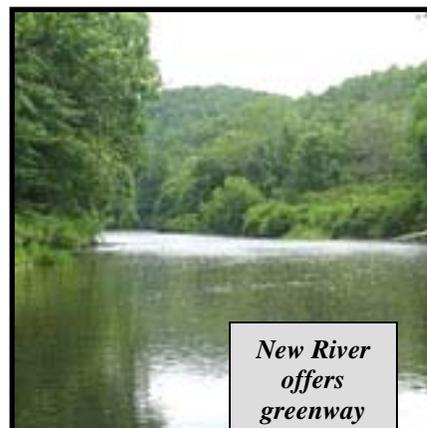
http://www.dfr.state.nc.us/Urban/urban_grant_overview.htm

North Carolina Division of Water Resources

Water Resources Development Grant Program

This grant is designed to provide cost-share grants and technical assistance on projects related to water resources. There are seven (7) different project categories. The category which describes *the establishment of a greenway in close proximity to a body of water* is eligible for the Land Acquisition and Facility Development for Water-Based Recreation grant.

http://www.ncwater.org/Financial_Assistance/



*New River
offers
greenway
opportunity*



North Carolina Division of Commerce

Community Revitalization Grants

The purpose of the Community Revitalization Grant is to revitalize low or moderate income residential areas through improvements, preservation, or development. Eligible activities include housing, street improvements, public water service, public sewer service, community centers, and recreation facilities. Other activities may be eligible with pre-approval. Maximum grants are one million dollars.

<http://www.nccommerce.com/en/CommunityServices/CommunityDevelopmentGrants/CommunityDevelopmentBlockGrants/>

Miscellaneous State Funding Organizations

North Carolina's Clean Water Management Trust Fund (CWMTF)

Created in 1996 by the North Carolina General Assembly, the Clean Water Management Trust Fund (CWMTF) grants monies to local governments, state agencies, and not-for-profit conservation groups to help finance projects that specifically address water pollution issues. CWMTF will fund projects that contribute toward a network of riparian buffers and greenways for environmental, educational, and recreational benefits. There is no match required from local municipalities for CWMTF funds; however, the "suggestion" of a match is highly recommended.

<http://www.cwmtf.net/>

North Carolina Natural Heritage Trust Fund (NHTF)

Monies from the NHTF must be accessed through state agencies such as DENR, the Wildlife Resources Commission, the Department of Cultural Resources, and/or the Department of Agriculture and Consumer Services (NCDA&CS). Funds are meant for the acquisition and protection of land with significant habitat value and/or cultural heritage value.

<http://www.ncnhtf.org/>

North Carolina Health and Wellness Trust Fund (HWTF)

The NC Health and Wellness Trust Fund was created by the General Assembly as one of three (3) entities to invest North Carolina's portion of the Tobacco Master Settlement Agreement (MSA). HWTF receives one-



fourth of the state's tobacco settlement funds, which are paid in annual installments over a 25-year period.

The Fit Community Program was designed to address the growing obesity problem in North Carolina. In 2004, HWTF partnered with Blue Cross and Blue Shield of North Carolina to launch a statewide campaign designed to raise awareness of the danger of being overweight and provide communities and individuals with the information and tools they need to address this problem.



Fit Community Grants are funded for two (2) years, for a maximum of \$60,000. Applicants must first submit a Fit Community designation application and then apply for a Fit Community grant.

HWTF receives 25% of the Tobacco MSA settlement fund. Three-fourths of this flue-cured tobacco, which is grown in the US, comes from North Carolina tobacco farms.

Funding is for policy changes that will influence the public by promoting physical activity and changes to the physical environment; and, that encourage more physical activity (trails/greenways).

<http://www.healthwellnc.com/>

Federal Agencies

Community Development Block Grant Program (HUD-CDBG)

The CDBG is an extremely flexible grant program that provides communities with funding resources to address a wide range of unique community



**Community
Development
Block
Grant**

development needs. The program is administered through the United States Department of Housing and Urban Development (HUD). Formed in 1974,



the CDBG program is one of the oldest continuing HUD programs in existence. The CDBG program provides annual grants for facility and infrastructure related improvements to assist in revitalization and job retention within communities.

<http://www.hud.gov/offices/cpd/communitydevelopment/programs/>

Rivers, Trails, and Conservation Assistance Program (RTCA)



The National Park Service (NPS) provides this program of advisory services and counseling. The NPS works with community groups and local and state governments to conserve rivers, preserve open space, and develop trails/greenways. No fixed amount is established for these services. Candidates must demonstrate a commitment for

As new development occurs, RTCA protects natural resources in the area

cost-sharing, which may include donations of time, cash, and services. RTCA has played a major role in community conservation/recreation through citizen-led partnership approaches to river protection, trail development, and land conservation.

www.nps.gov/ncrc/programs/rtca/

Public Works and Economic Development Program

This program is administered by the Economic Development Administration for the US Department of Commerce. Public Works and Economic Development investments help support the construction or rehabilitation of essential public infrastructure and facilities necessary to generate or retain private sector jobs and private sector capital, and



Public infrastructure is essential in all aspects of community development

investments, attract promote regional competitiveness. This includes investments that expand and upgrade infrastructure to attract new industry, support technology-led development, redevelop brownfield sites, and provide Eco-industrial development.

<http://www.eda.gov/AboutEDA/Programs.xml>



Contributions

The solicitation of *contributions* is an acceptable method of fund-raising for pedestrian improvements. These donations - typically in the form of land, cash, labor, or materials - can be solicited to assist the Town of West Jefferson with the enhancement of its pedestrian system. Corporations, civic organizations, individuals, and other groups generally donate to a specific pedestrian project; however, donations may also be solicited for multiple project improvements or additions. Private, nonprofit, tax-exempt foundations, such as the North Carolina Community Foundation (NCCF), are often used as a means of accepting and administering *private* gifts to a *public* entity.

Foundations

Foundations are another source of financing that allows direct contributions to be made within communities, states, or the nation. These types of funds are usually described as special program foundations, general-purpose foundations, or corporate foundations. Foundations generally have very few restrictions or limitations and are typically received from local entities. One example of such a foundation is the Cannon Foundation, Inc.

Partnerships

To implement the recommendations contained in the comprehensive pedestrian plan, West Jefferson will most certainly have to expand their partnership agreements with other public agencies and private-sector organizations. There are many different types of partnerships that can be formed to achieve the goals established by the Town. In fact, many local governments throughout the nation are utilizing partnerships with public and private-sector interests to accomplish community goals.

Listed below are the various types of partnerships that the Town should consider in its efforts for the improvement of pedestrian facilities:

- Programming partnerships to co-sponsor events and facilities or to allow qualified outside agencies to conduct activities on properties, which are municipally-owned.
- Operational partnerships to share the responsibility for providing public access and use of facilities.

Handmade in America, the Revitalization Committee, and the Town partnered for streetscape design charrette





- Development partnerships to purchase land and/or build facilities.
- Management partnerships to maintain properties and/or facilities.
- Elected officials should become advocates for pedestrian facilities and promote the development of future improvements.

The Town of West Jefferson is currently “partnered” with several entities in other Town-related endeavors/functions and should evaluate forming additional partnerships, which address the needs of the pedestrian system.

NCDOT will be a very important partner as more facilities are developed in the area. Many of the proposed improvements involve NCDOT. It will be imperative that this partnership has good communication and coordination for the efficient implementation of projects.

Direct requests should be made to potential partners, asking them to meet to evaluate the possible benefits of partnering. This step should be made to generate interest and agreement *prior* to solidifying any responsibilities for each participating party.

Land Acquisition and Development



There are many different types of *land acquisition* available to the Town of West Jefferson for the pedestrian system expansion and/or future development. Due to the land costs and availability, it is recommended that the Town prioritize the property to be acquired for facilities regarding multi-purpose trails, which are typically off-street facilities. Listed below are several methods for acquiring/developing these trails:

Town should prioritize land purchases for multi-purpose trails

Local Gifts

Donations of land, money, labor, or construction can have a significant impact on the acquisition and development of pedestrian facilities. The solicitation of local gifts is highly recommended and should be organized thoroughly, with the utilization of very specific strategic methods. Often untapped, this source of obtaining funds requires the



contacting of potential donors - such as individuals, institutions, foundations, service clubs, etc.

Life Estate

A *life estate* is a gift whereby a donor retains the land during his/her lifetime and relinquishes title of the property after his/her death. In return, the owner (or family) is relieved of property tax for the given land.

Easement

An *easement* is the most common type of “less-than-fee” interest in land. An easement seeks to compensate the property owner for the right to use his/her land in some way or to compensate for the loss of his/her privileges to use the land. Generally, the land owner may still use the land and therefore continues to generate property tax revenue for the municipality.

Fee Simple Purchase

Fee simple purchase is the most common method used to acquire municipal property for pedestrian facilities. Although it has the advantage of simplifying justification to the general public, fee simple purchase is the most difficult method to pursue, due to limited monetary resources.

Fee simple with lease-back or resale

This method allows municipalities to acquire land by fee simple purchase, yet allows them to either sell or lease the property to prospective users with restrictions that will preserve the land from future development. The fee simple with lease-back or resale method of development commonly results from situations in which land owners who have lost considerable monetary amounts in property value, determine that it is more economical to sell the land to the municipality (with a lease-back option) than to keep it.

Long-term option

Long-term options allow municipalities to purchase property over a long period of time. This method is particularly useful because it enables the municipality to consider particular pieces of land that may have future value, though it is not currently desired or affordable at the time. There are several advantages to this method of property acquisition: the Town can protect the future of the land without purchasing it upfront; and meanwhile, the purchase price of the land will not increase, with the Town having the right to exercise its option. The



disadvantage to the Town is that all privileges relinquished by the land owner require compensation in the form of securing the option.

Identify Special Funding Opportunities for High Priority Projects

The funding sources listed above can be used for numerous projects proposed in this plan as well as future projects. Many of these projects can be funded as enhancement projects of TIP. The improvements along the major corridors (that have substantial construction cost) should be strongly considered. Funding for mapping and signage can be allocated through the Governor's Highway Safety Program.

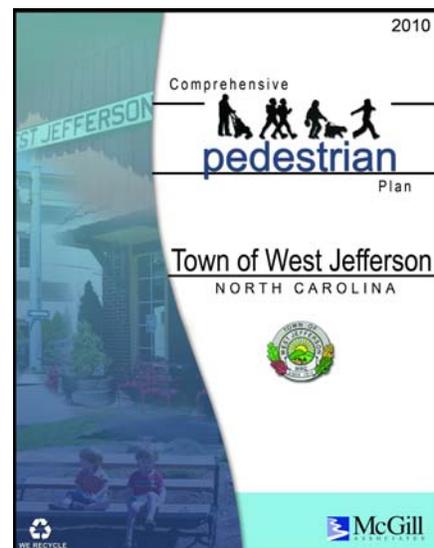
It will be important to incorporate the future facilities with incidental highway projects. This document will be used by NCDOT to determine areas where pedestrian improvements should be incorporated into the proposed roadway improvements. Major construction projects may require more than grants. Although grant funding is a great resource, the amount of money available can limit the size of the project. A bond referendum could help to determine whether the Town's residents are willing to accept the cost for construction of major facilities.

The grants available for funding pedestrian facilities will evolve in the future. The funding amount for many grants may not be as much as others, while some may be very competitive because of the monies available. Partnering with other organizations typically lends more project significance when applying to funding agencies. Having multiple organizations applying for a grant, shows unity within a community; this, in turn, supports the grant application. In addition, having multiple partners will allow for more monies to be used for matching funds.

7.7 THE TOWN OF WEST JEFFERSON COMPREHENSIVE PEDESTRIAN PLAN

The Town of West Jefferson Comprehensive Pedestrian Plan 2010 is merely a guide for the future. As new development and growth occurs in West Jefferson, new priorities may develop. The Town should continually evaluate and update the plan in order to meet the primary needs of the community. As the projects are implemented, the Town should take steps to update all involved parties in the progress being made. Additions to the plan should be formalized in order to insure continuity as stakeholders change.

- END OF SECTION -



APPENDICES



Appendix A

West Jefferson Workshop Flyer

Appendix B

Community Survey

Appendix C

Survey Results

Appendix D

Ashe County High Frequency Crash Location Map

Appendix E

Relative Transit Need Maps

Appendix F

Priority Calculator

Priority Calculator Spreadsheet

Preliminary Cost Estimates

Appendix G

Facility Proposed Maps

Appendix H

Commonly Used Abbreviations

Appendix I

Ashe County Traffic Survey Group

Appendix J

West Jefferson Division Map

Appendix K

R2100 - Ashe County

Appendix A
West Jefferson Workshop Flyer

TOWN OF WEST JEFFERSON

COMMUNITY MEETING

The Town of West Jefferson is pleased to announce a community meeting, allowing you the opportunity to participate in the:

2010 Pedestrian Master Plan



Be A Part!

The Meeting will be held on
Friday, August 13, 2010
at the Gallery Crawl.

McGill Associates, P.A., will facilitate this meeting.



*For More Information Contact:
Town of West Jefferson*

01 S. Jefferson Avenue
(3 3 6) 2 4 6 - 3 5 5 1

Meeting Held At:

6:00 PM

Appendix B

Community Survey

TOWN OF WEST JEFFERSON PEDESTRIAN PLAN

Participants Survey

1) Age____ Resident of Town of West Jefferson: Yes No

2) List the number of persons in your household including yourself who are in the age brackets below:

1-5____ 6-8____ 9-12____ 13-15____ 16-18____ 19-21____ 22-29____ 30-39____ 40-49____ 50-59____ 60+____

3) How many times per month (on average) do you walk for the following purposes?

____ To go to work

____ To go to school

____ For general recreation / exercise

____ To attend social activities / events

____ To shop or run errands

____ Nature study / appreciation

____ Other _____

4) Are there places you would like to be able to walk or bike that you cannot at this time?

From _____ To _____

From _____ To _____

From _____ To _____

5) Please order the list according to the importance you place on each item with 1 being your highest priority. Please consider other members of your household as well.

_____ Maximizing safety for pedestrians across the entire community

_____ Perfecting a few major travel corridors for pedestrians

_____ Maximizing pedestrian opportunities in certain hubs or nodes around the community

_____ Improving aesthetic quality of existing pedestrian facilities

6) Which of the following factors play a role in whether or not you walk to a destination?

Availability of a safe route

Availability of an aesthetically pleasing route

Cost of other travel modes

Availability of other travel options

Need for exercise

Weather

Travel time/length of trip

Other _____

9) Please list below, any suggestions about specific programming or pedestrian related policies that you would like to see offered in West Jefferson: _____

10) Should public funds be used to improve pedestrian options and facilities?

Yes No

11) If so, which ones?

- Existing local taxes
- New local taxes
- State and Federal Grants
- Other _____

Optional

Name: _____ Phone #: _____

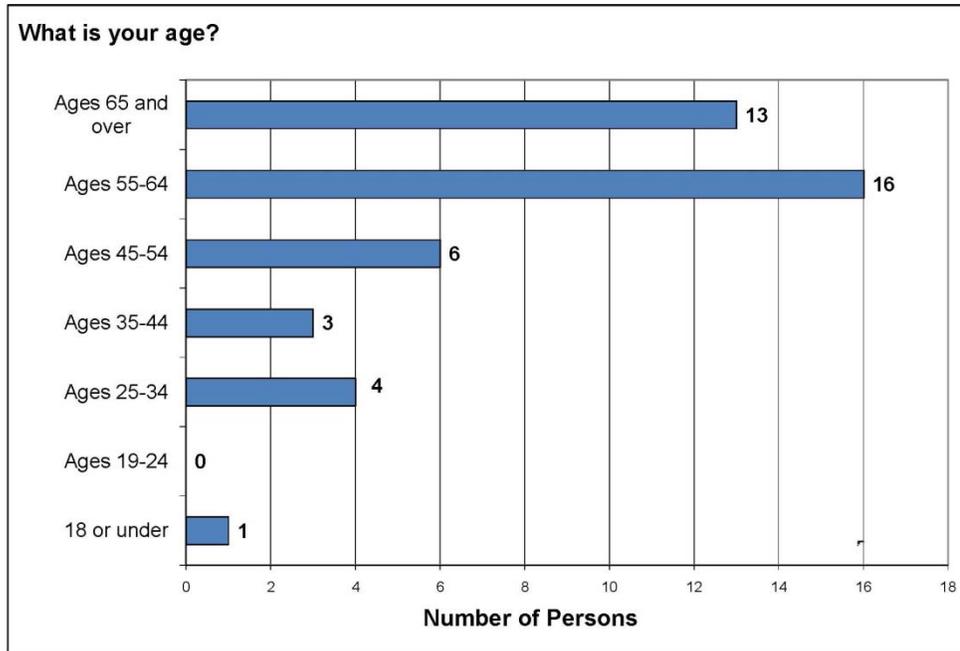
Address: _____ Email Address: _____

Appendix C

Survey Results

Pedestrian Survey Results

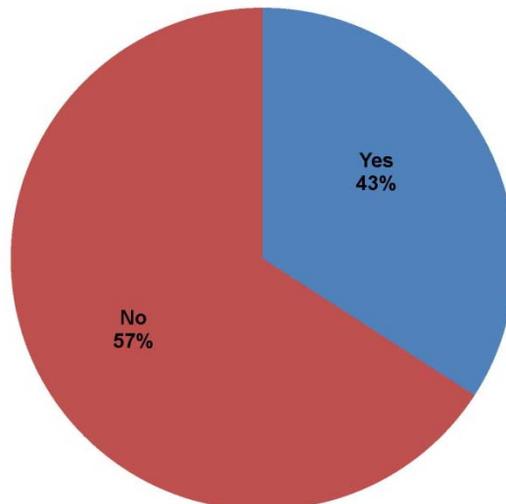
1. Age of participants:



The majority of respondents were between the ages of 55 and 64.

2. Resident / Non-Resident

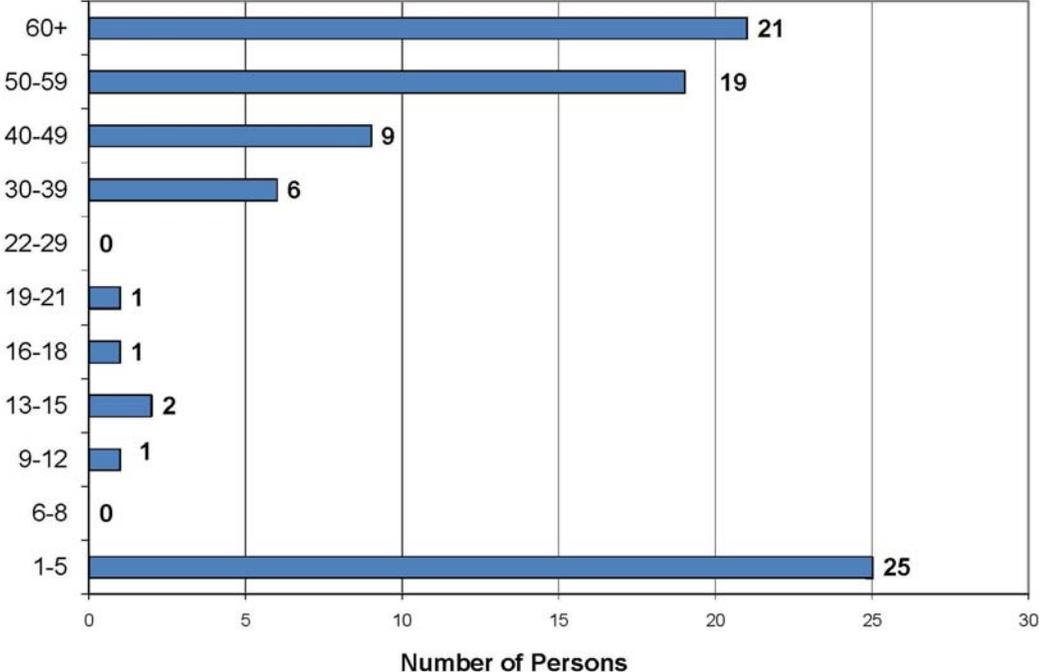
Resident of Town of West Jefferson?



Survey respondents were mostly visitors from nearby communities. However, the resident respondents also made up a large portion of the total.

3. Survey respondent household ages:

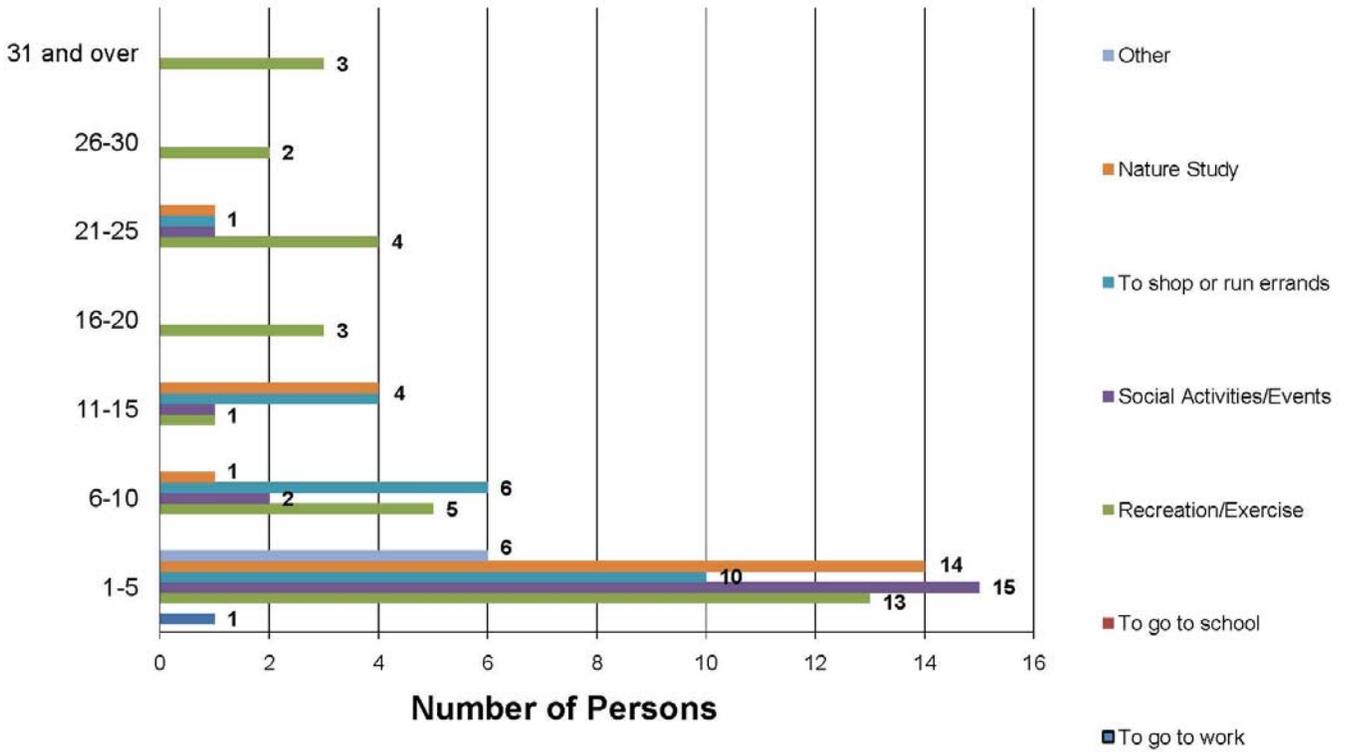
List the number of persons in your household including yourself who are in the age brackets below:



The majority of respondents to the survey were 60 years of age, or older.

4. Reason for walking trips:

How many times per month (on average) do you walk for the following purposes?



Most respondents walk for exercise or to get out of doors for fresh air.

5. Respondent goals:

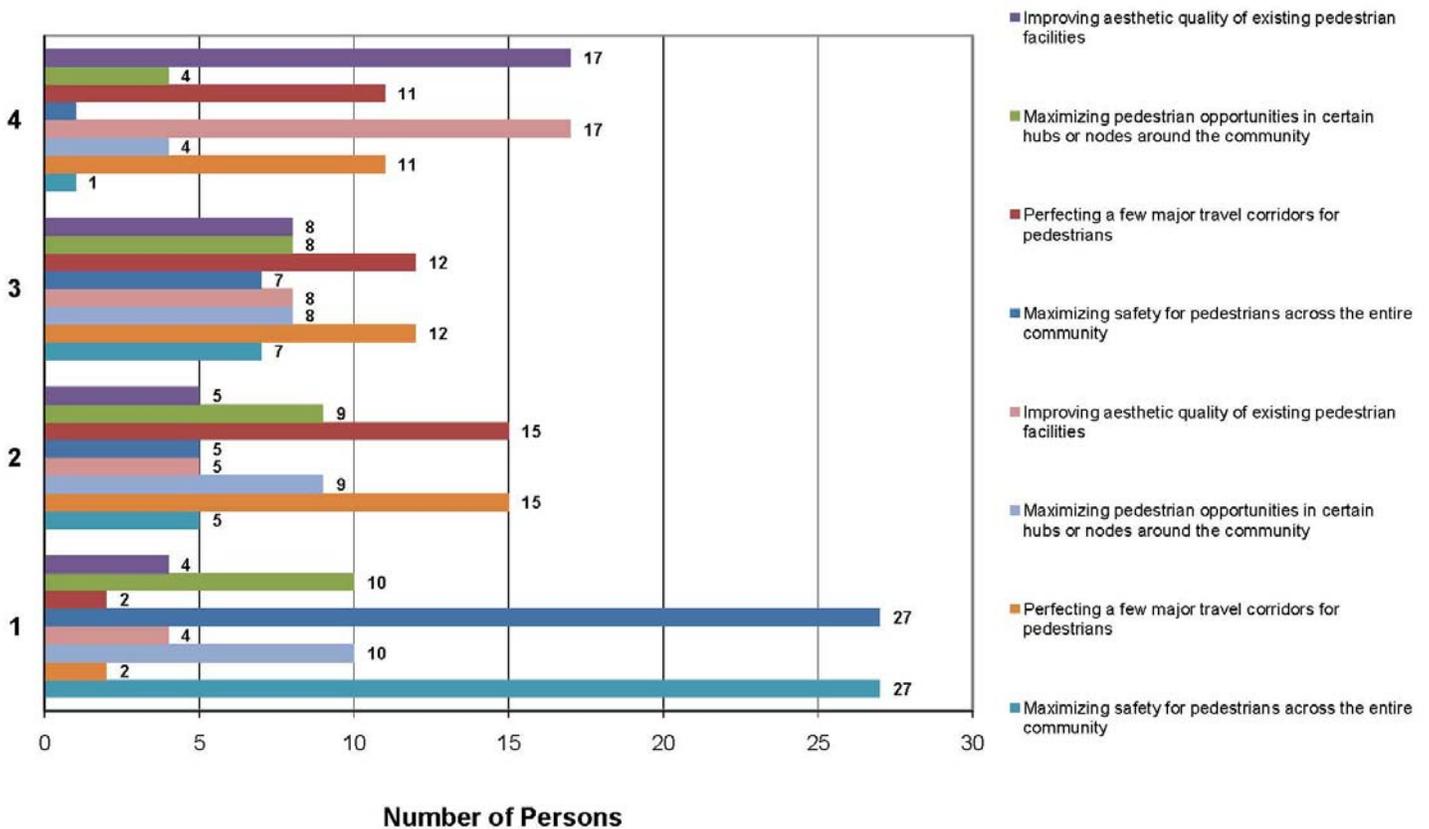
Are there any places you would like to be able to walk or bike that you cannot at this time?

FROM	TO	Number of Votes
West Jefferson	Jefferson	3
Town	Smokey Mountain Barbeque	1
Farmers Market	Downtown Shops	1
Town/Residences	Library	2
Downtown	Park	1
West Jefferson	Ingles	5
West Jefferson	McDonalds	2
Residence	Grocery Store/Shops	3
Downtown	Post Office	1

6. Respondent goals:

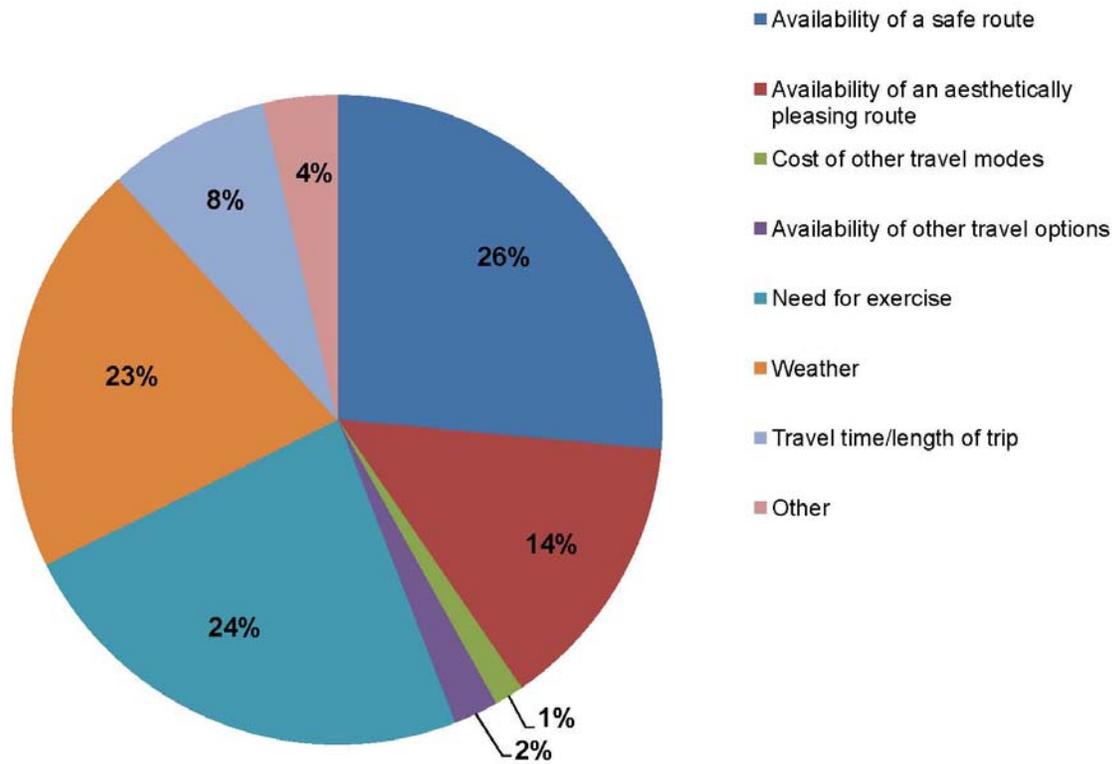
Parks, trails, and greenways received the highest response count, followed by the downtown. Again, many people checked off answers without ranking them. These responses included many votes for the downtown, parks, trails and greenways, shopping and library/museum as popular walking destinations.

Please order the list according to the importance you place on each item with 1 being your highest priority. Please consider members of your household as well.



7. Important factors that influence respondents' decision to walk:

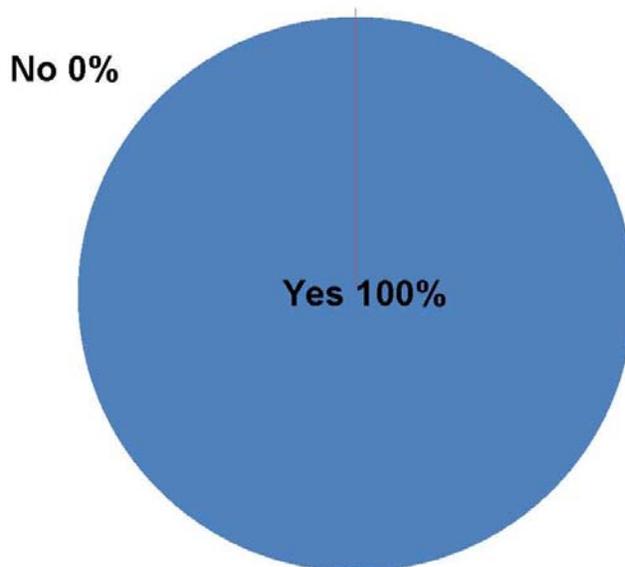
Which of the following factors play a role in whether or not you walk to a destination?



8. Please list below, any suggestions about specific programming or pedestrian related policies that you would like to see offered in West Jefferson.

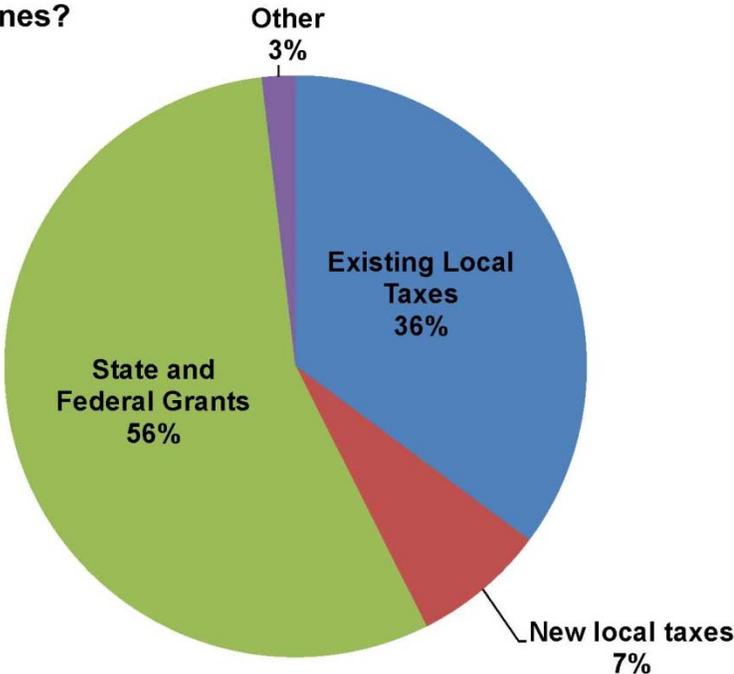
Exercise walking trail with specific goals similar to trail near Ashe Memorial Hospital
Love to see downtown parking & pedestrian friendly
Sidewalk on Church Street to Main Street
Greenway for safe walking with several access points
Need for residents to access facilities within walking distance to their home
Accident records for specific sites
Identification of highest pedestrian areas outside main streets
Would like to see the New River included in the greenway route
Bring the Creeper Trail back to Lansing
Walk/bike trail between West Jefferson & Warrensville
Trail from West Jefferson to the top of Mount Jefferson

9. Respondent's opinion concerning pedestrian project funding:



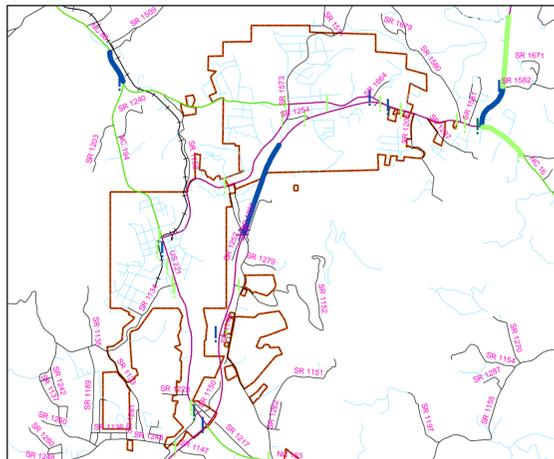
10. Funding follow up:

If so, which ones?

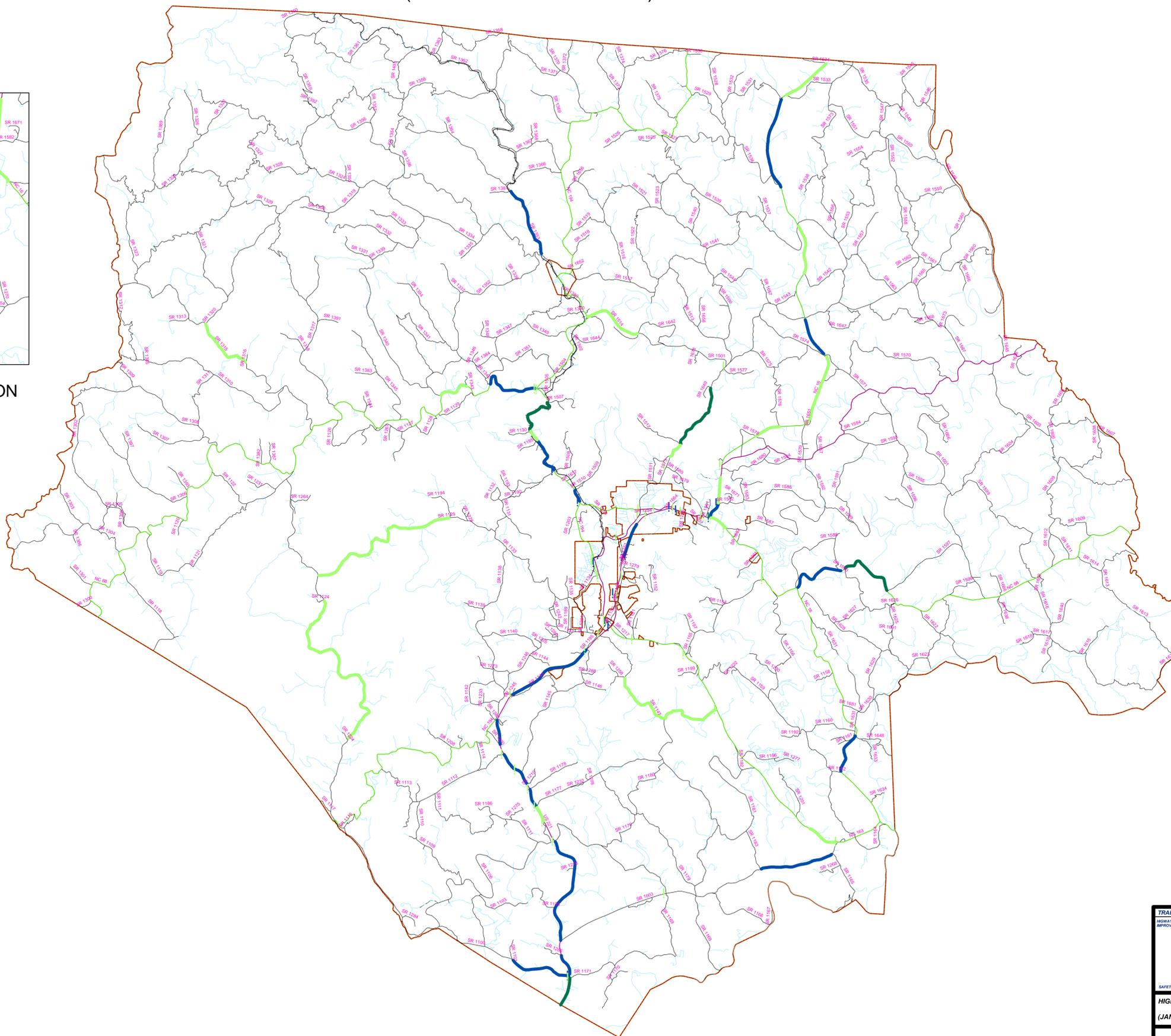


Appendix D
Ashe County High Frequency Crash
Location Map

ASHE COUNTY HIGH FREQUENCY CRASH LOCATION MAP (01/01/2004 TO 12/31/2008)



JEFFERSON AND WEST JEFFERSON



LEGEND

INTERSECTIONS
150 Feet Y-Line

CATEGORY

- \$ 50 and above
- # 40 to 49
- " 30 to 39
- ! 20 to 29
- ! 10 to 19
- ! 4 to 9

SECTIONS
0 Feet Y-Line

CATEGORY

- Orange 50 and above
- Purple 40 to 49
- Red 30 to 39
- Green 20 to 29
- Blue 10 to 19
- Light Green 4 to 9

DOT ROADS
ROUTE TYPE

- Blue line INTERSTATE
- Pink line US
- Green line NC
- Black line SR
- Yellow line LOCAL

- NOTES**
- The locations (Intersections and Sections) are based on reported and the mileposted crashes.
 - The sections depicted are the top 12% of the high frequency crash sections.
 - The sections do not include crashes that are within 150 feet of the intersections
 - The intersections depicted include locations with 4 or more crashes.



0 0.4 0.8 1.6
Miles

	TRAFFIC SAFETY SYSTEMS MANAGEMENT SECTION	DIVISION: 11	SHELBY REGION
	HIGHWAY SAFETY IMPROVEMENT PROGRAM SAFETY INFORMATION MANAGEMENT AND SUPPORT	STUDY PERIOD: 01/01/2004 TO 12/31/2008	
	ANALYSIS PREPARED BY: S.D. LOWRY, P.E.		
	DIAGRAM PREPARED BY: TAHR HAMEED		
	DIAGRAM REVIEWED BY: C.J. OLIVER, PE		
	SCALE: AS SHOWN		
	DATE: 8/25/2009		
	LOG NUMBER:		
N.C. DEPARTMENT of TRANSPORTATION DIVISION of HIGHWAYS TRANSPORTATION MOBILITY AND SAFETY DIVISION			

**ASHE COUNTY
INTERSECTIONS**

NUMBER	CITY	LOCATION	CRASHES	CATEGORY
1	RURAL	US 221 at SR 1149	42	40 to 49
2	WEST JEFFERSON	US 221B at SR 1248	26	20 to 29
3	RURAL	US 221 at NC 16	24	20 to 29
4	JEFFERSON	US 221B at SR 1664	16	10 to 19
5	RURAL	NC 88 at NC 194	13	10 to 19
6	WEST JEFFERSON	US 221 at US 221B	12	10 to 19
7	RURAL	US 221 at SR 1100	12	10 to 19
8	JEFFERSON	US 221B at GOVERNMENT	12	10 to 19
9	RURAL	US 221 at SR 1582	11	10 to 19
10	WEST JEFFERSON	US 221B at MAIN	10	10 to 19
11	RURAL	NC 88 at SR 1131	10	10 to 19
12	RURAL	US 221 at US 221B	10	10 to 19
13	RURAL	US 221 at SR 1283	10	10 to 19
14	WEST JEFFERSON	US 221B at ASHMONT	9	4 to 9
15	WEST JEFFERSON	US 221B at NC 194	8	4 to 9
16	RURAL	US 221 at SR 1581	8	4 to 9
17	RURAL	US 221 at SR 1147	8	4 to 9
18	JEFFERSON	US 221 at WAUGH	8	4 to 9
19	JEFFERSON	US 221 at LONG	8	4 to 9
20	RURAL	US 221 at SR 1169	8	4 to 9
21	RURAL	NC 88 at NC 194	7	4 to 9
22	WEST JEFFERSON	US 221B at SR 1134	7	4 to 9
23	WEST JEFFERSON	MAIN at SECOND	7	4 to 9
24	JEFFERSON	US 221B at SR 1254	7	4 to 9
25	WEST JEFFERSON	US 221B at SR 1149	7	4 to 9
26	JEFFERSON	US 221 at US 221B	7	4 to 9
27	RURAL	US 221 at SR 1145	6	4 to 9
28	RURAL	SR 1573 at SR 1580	6	4 to 9
29	WEST JEFFERSON	SR 1149 at SR 1283	6	4 to 9
30	JEFFERSON	US 221B at CHERRY	6	4 to 9
31	RURAL	NC 163 at SR 1149	6	4 to 9
32	RURAL	US 221 at SR 1171	6	4 to 9
33	RURAL	US 221 at SR 1177	6	4 to 9
34	RURAL	US 221 at SR 1178	6	4 to 9
35	RURAL	NC 88 at SR 1505	6	4 to 9
36	RURAL	US 221 at SR 1112	6	4 to 9
37	JEFFERSON	US 221B at SR 1573	6	4 to 9
38	WEST JEFFERSON	US 221B at MARKET	6	4 to 9
39	RURAL	NC 16 at SR 1155	6	4 to 9
40	RURAL	NC 16 at SR 1587	6	4 to 9
41	RURAL	US 221 at NC 16	6	4 to 9
42	RURAL	US 221 at SR 1145	6	4 to 9
43	RURAL	SR 1501 at SR 1573	5	4 to 9
44	RURAL	US 221 at SR 1580	5	4 to 9
45	RURAL	NC 163 at SR 1155	5	4 to 9
46	RURAL	US 221 at SR 1106	5	4 to 9
47	RURAL	US 221 at SR 1143	5	4 to 9
48	WEST JEFFERSON	US 221B at SHORT	5	4 to 9
49	RURAL	NC 163 at SR 1003	5	4 to 9
50	WEST JEFFERSON	SR 1149 at SR 1152	5	4 to 9

**ASHE COUNTY
INTERSECTIONS**

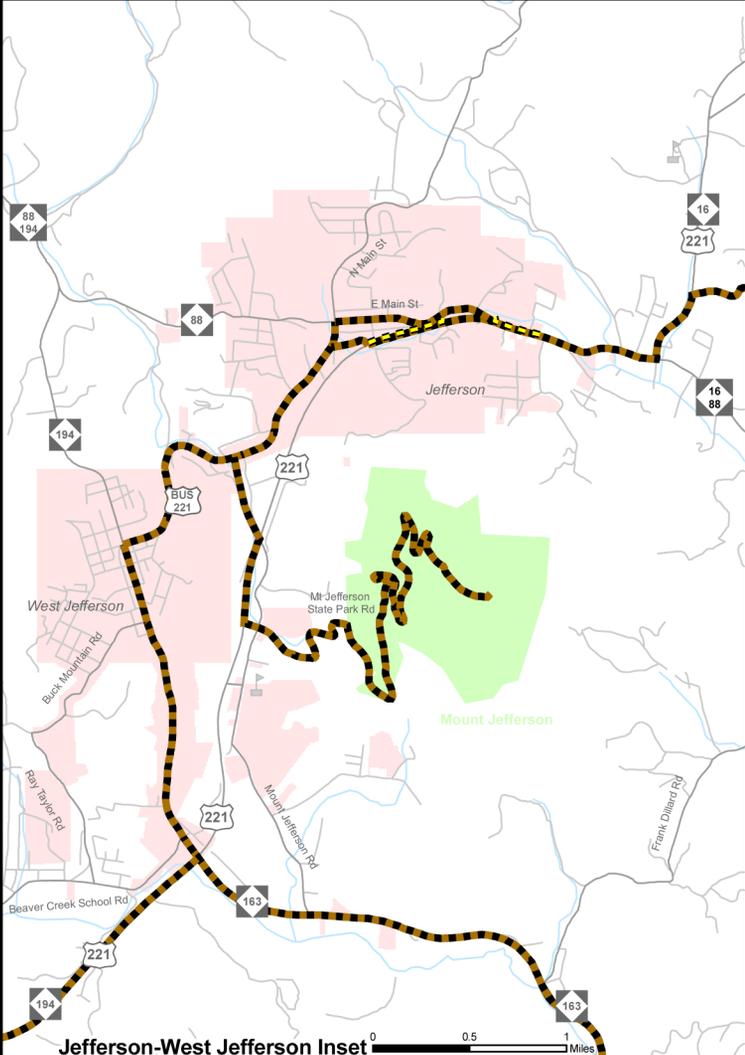
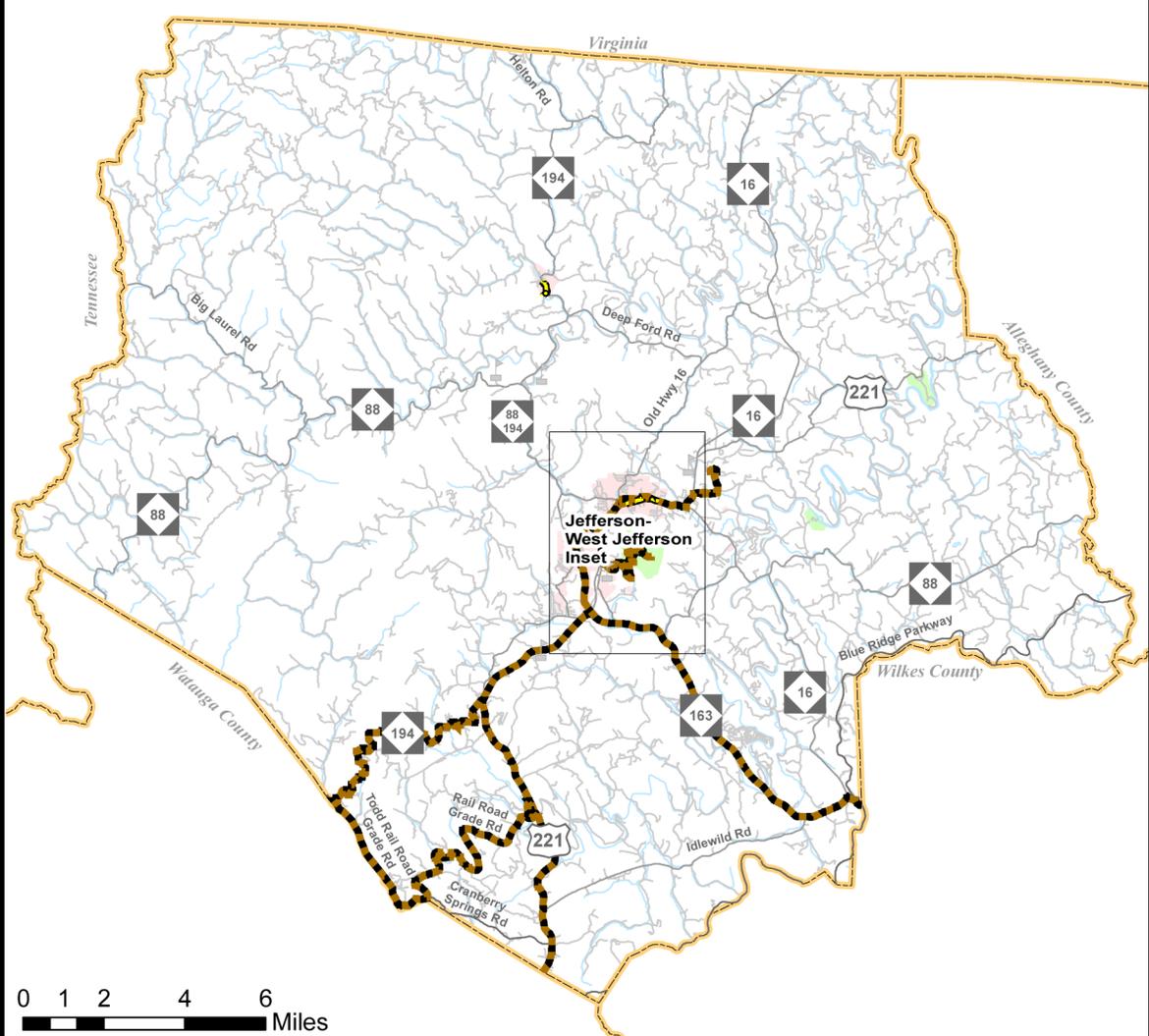
<i>NUMBER</i>	<i>CITY</i>	<i>LOCATION</i>	<i>CRASHES</i>	<i>CATEGORY</i>
51	RURAL	NC 163 at SR 1147	5	4 to 9
52	RURAL	SR 1003 at SR 1169	5	4 to 9

**ASHE COUNTY
SECTIONS**

<i>NUMBER</i>	<i>ROUTE</i>	<i>FROM RD</i>	<i>TO RD</i>	<i>CRASHES</i>	<i>CATEGORY</i>
1	NC 88	SR 1507	SR 1130	24	20 to 29
2	NC 88	SR 1627	SR 1597	24	20 to 29
3	SR 1573	SR 1512	SR 1649	22	20 to 29
4	US 221	CL-WATAUGA	SR 1171	20	20 to 29
5	US 221	SR 1103	SR 1216	19	10 to 19
6	NC 88	SR 1185	SR 1131	18	10 to 19
7	NC 88	SR 1342	NC 194	17	10 to 19
8	US 221	SR 1177	SR 1178	16	10 to 19
9	US 221	SR 1210	SR 1145	16	10 to 19
10	NC 16	SR 1162	SR 1632	16	10 to 19
11	SR 1100	US 221	SR 1101	15	10 to 19
12	SR 1353	SR 1324	SR 1381	15	10 to 19
13	US 221	SR 1200	NC 194	14	10 to 19
14	US 221	SR 1143	SR 1145	14	10 to 19
15	NC 16	SR 1536	SR 1531	14	10 to 19
16	US 221	SR 1216	SR 1169	13	10 to 19
17	NC 16	SR 1571	SR 1573	13	10 to 19
18	US 221	SR 1100	SR 1265	12	10 to 19
19	US 221	SR 1149	PORTER	12	10 to 19
20	US 221	NC 16	SR 1582	12	10 to 19
21	NC 88	SR 1509	NC 194	12	10 to 19
22	SR 1003	SR 1165	SR 1183	12	10 to 19
23	US 221	SR 1003	SR 1103	11	10 to 19
24	US 221	SR 1145	SR 1112	10	10 to 19
25	NC 88	NC 16	SR 1590	10	10 to 19
26	US 221	SR 1106	SR 1177	9	4 to 9
27	NC 16	SR 1579	SR 1572	9	4 to 9
28	NC 16	SR 1542	SR 1539	9	4 to 9
29	SR 1147	NC 163	SR 1181	9	4 to 9
30	SR 1147	SR 1181	SR 1258	9	4 to 9
31	US 221	SR 1582	SR 1675	8	4 to 9
32	NC 16	SR 1587	US 221	8	4 to 9
33	NC 16	SR 1578	SR 1576	8	4 to 9
34	NC 16	SR 1572	SR 1574	8	4 to 9
35	NC 16	SR 1533	SR 1534	8	4 to 9
36	NC 88	SR 1340	SR 1343	8	4 to 9
37	NC 88	SR 1130	SR 1185	8	4 to 9
38	NC 163	DAVIS ACRES	SR 1003	8	4 to 9
39	SR 1100	SR 1224	SR 1124	8	4 to 9
40	SR 1125	SR 1100	SR 1194	8	4 to 9
41	SR 1315	SR 1316	SR 1320	8	4 to 9
42	SR 1514	SR 1501	NC 194	8	4 to 9
43	SR 1573	SR 1511	SR 1512	8	4 to 9

Appendix E

Relative Transit Need Maps

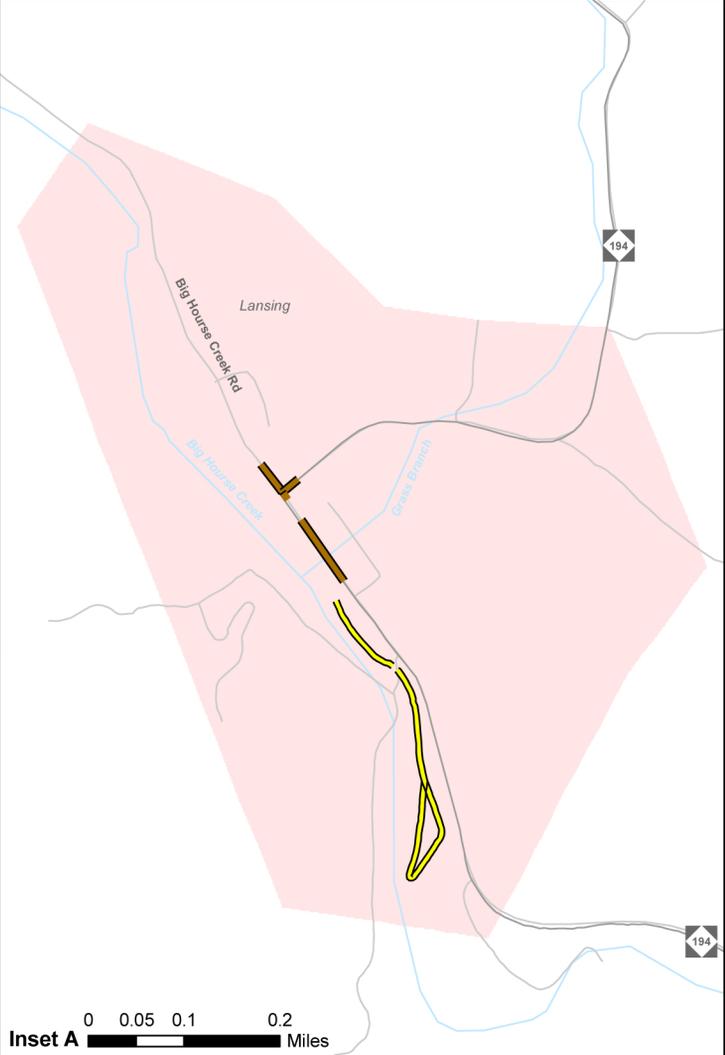
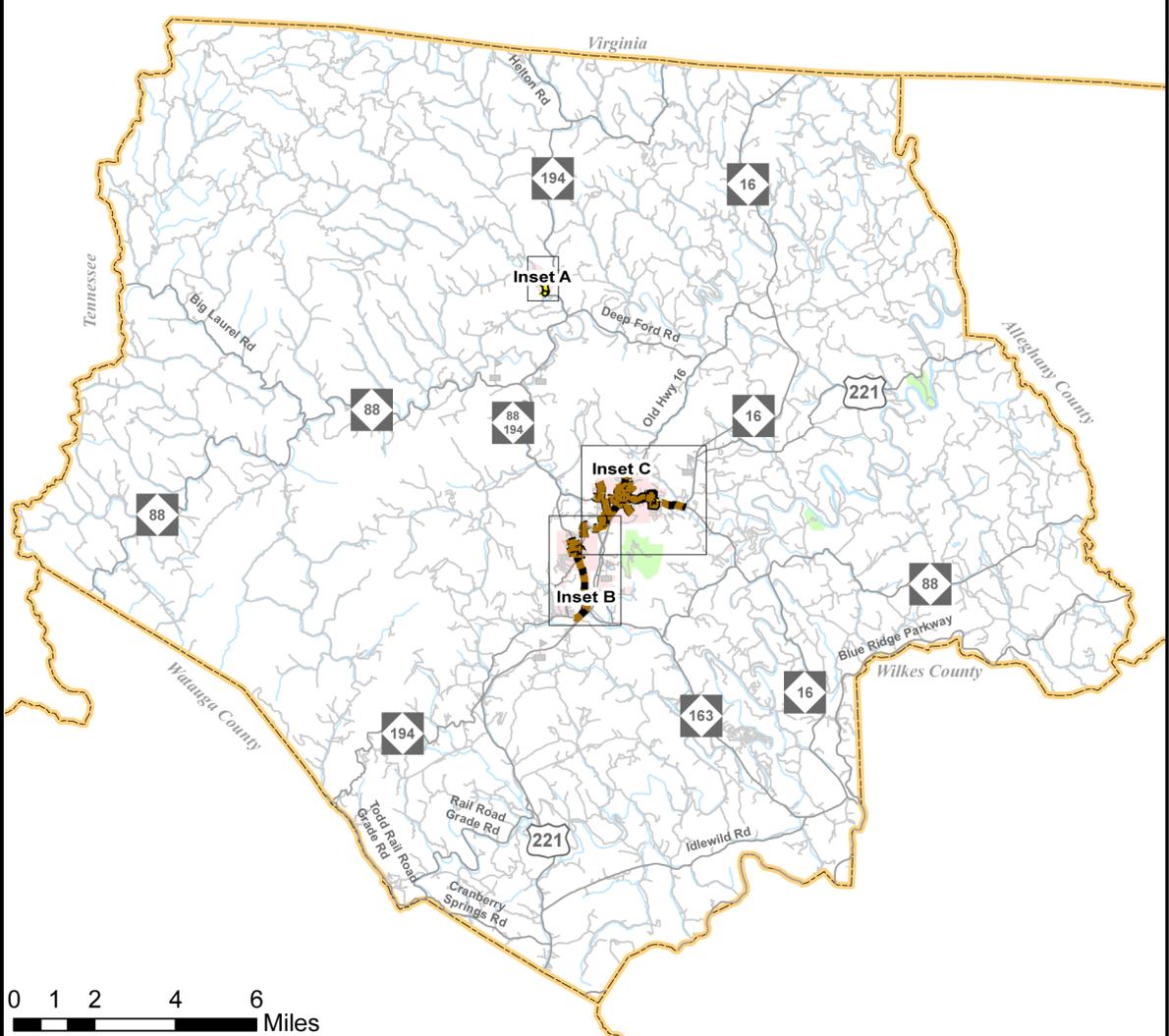


0 1 2 4 6 Miles

 Plan Date: December 04, 2009
 Sheet 4 of 5
 Base map date: 05-16-2005
 Refer to CTP document for more details

<p>On Road</p> <ul style="list-style-type: none"> Existing Needs Improvement Recommended 	<p>Off Road</p> <ul style="list-style-type: none"> Existing Needs Improvement Recommended 	<p>Multi-Use Paths</p> <ul style="list-style-type: none"> Existing Needs Improvement Recommended
<ul style="list-style-type: none"> Existing Grade Separation Proposed Grade Separation 		

Bicycle Map
Ashe County
North Carolina
Comprehensive
Transportation Plan

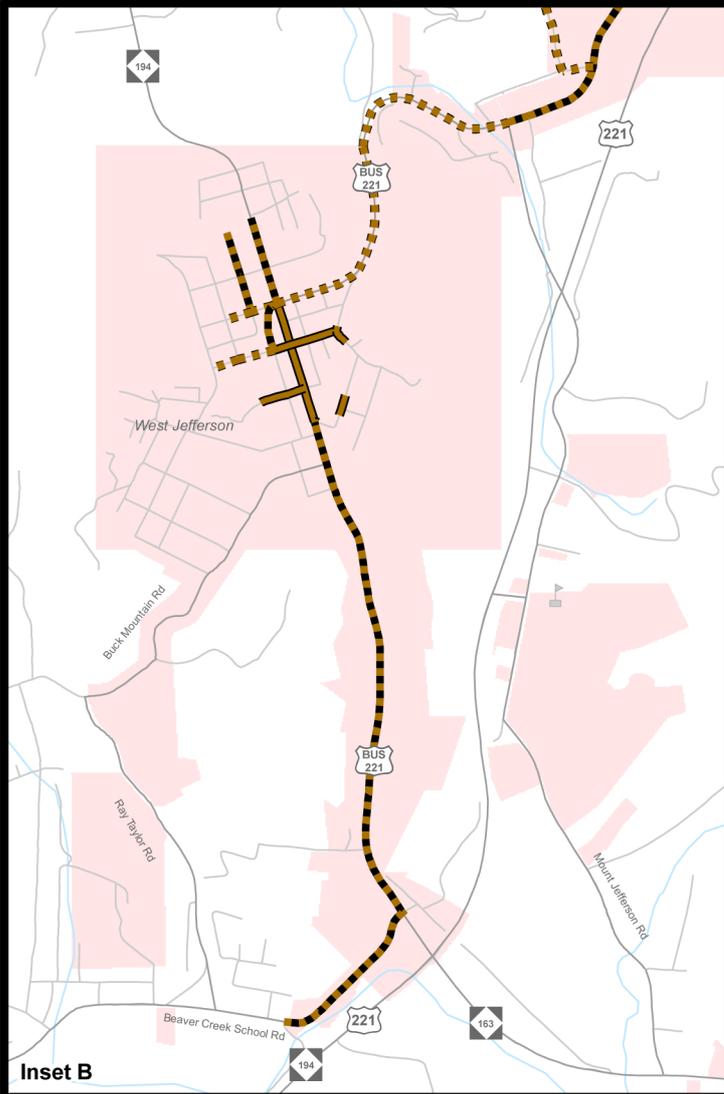



 Plan Date: December 04, 2009
 Sheet 5 of 5
 Base map date: 05-16-2005
 Refer to CTP document for more details

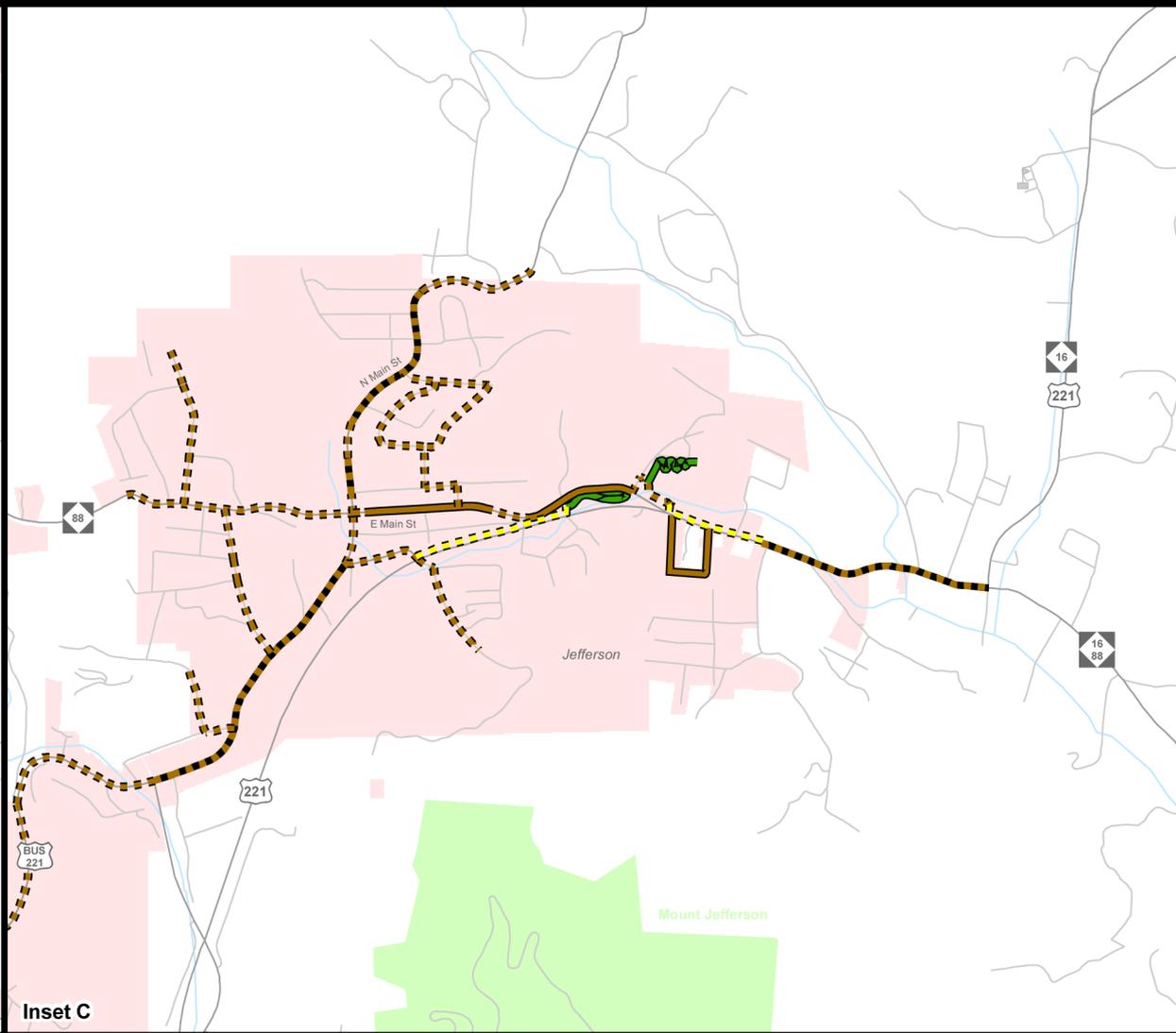
Sidewalks  Existing  Needs Improvement  Recommended	Off Road  Existing  Needs Improvement  Recommended	Multi-Use Paths  Existing  Needs Improvement  Recommended
 Existing Grade Separation  Proposed Grade Separation		

Pedestrian Map

**Ashe County
 North Carolina
 Comprehensive
 Transportation Plan**



Inset B



Inset C

N
W E
S

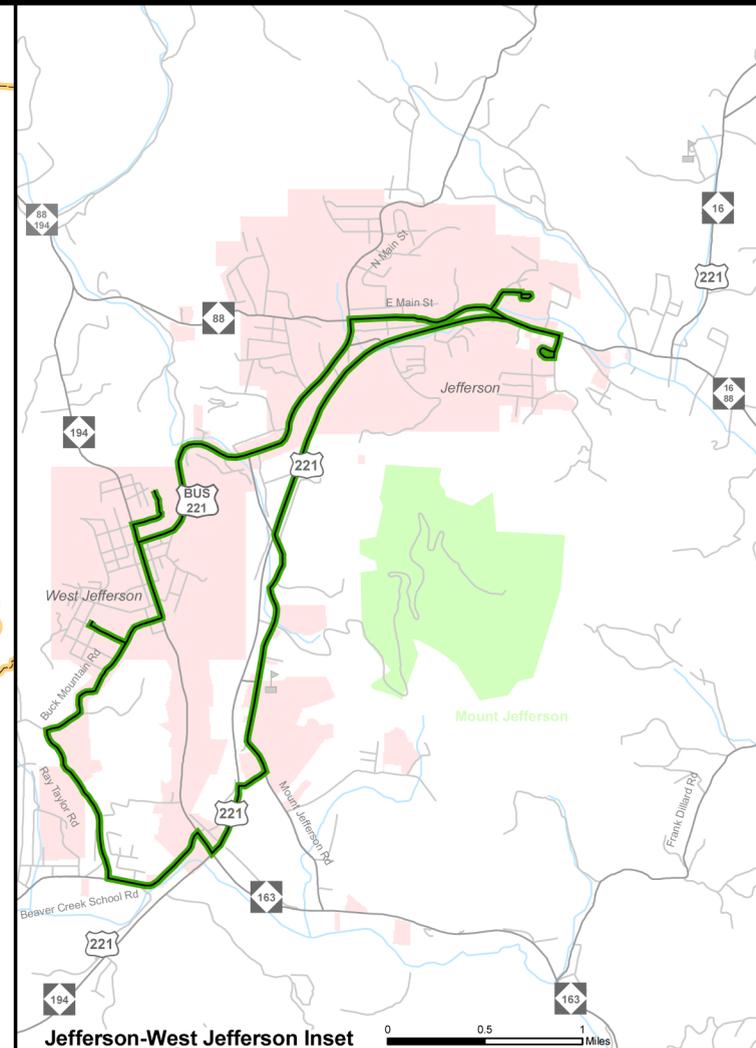
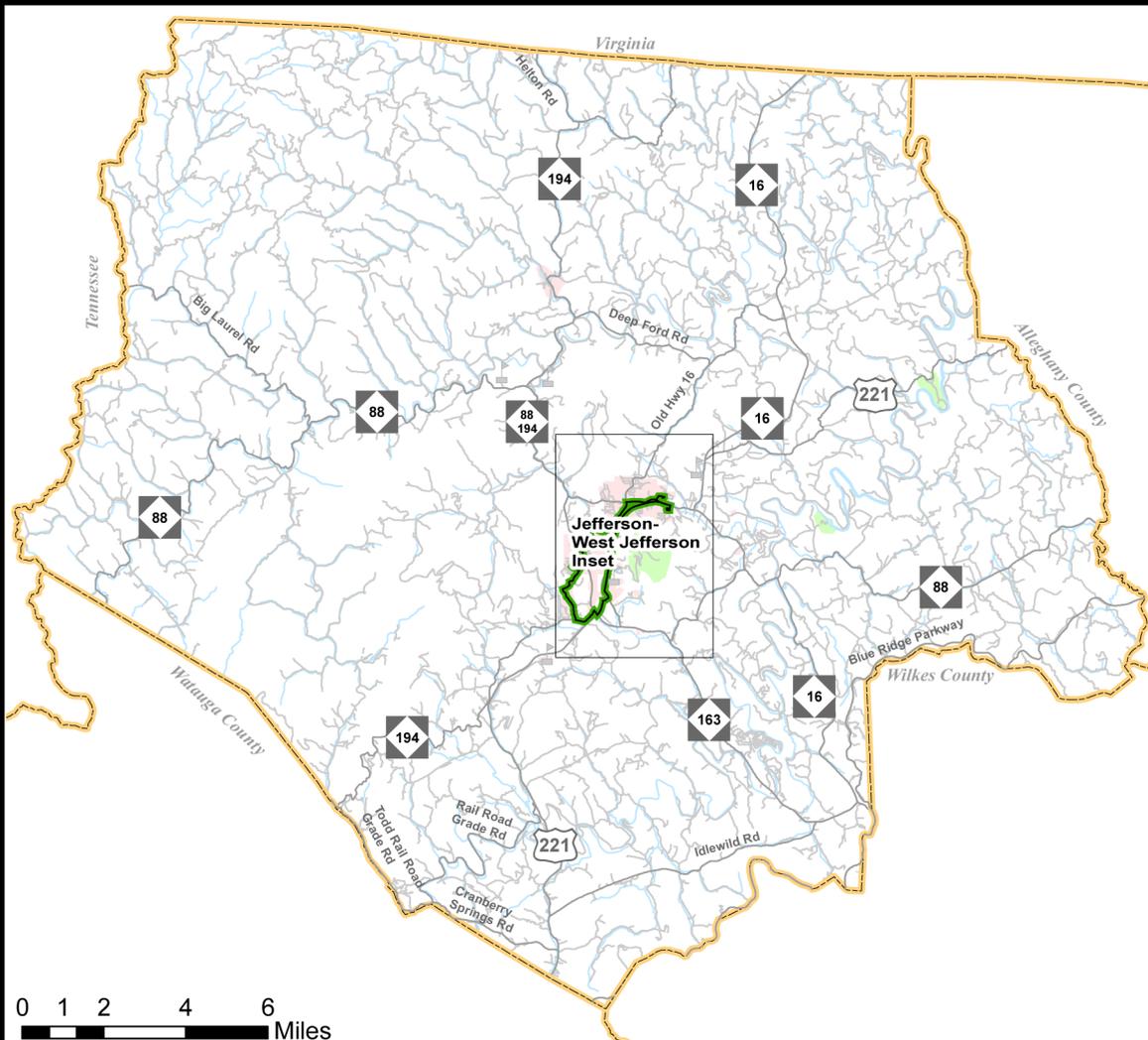
0 0.25 0.5 1 Miles

Plan Date: December 04, 2009
 Sheet 5A of 5
 Base map date: 05-16-2005
 Refer to CTP document for more details

Sidewalks	Off Road	Multi-Use Paths
Existing	Existing	Existing
Needs Improvement	Needs Improvement	Needs Improvement
Recommended	Recommended	Recommended
Existing Grade Separation		
Proposed Grade Separation		

**Pedestrian Map
 Insets B & C**

**Ashe County
 North Carolina
 Comprehensive
 Transportation Plan**



Jefferson-West Jefferson Inset

Plan Date: December 04, 2009
 Sheet 3 of 5
 Base map date: 05-16-2005
 Refer to CTP document for more details

<p>Bus Routes</p> <ul style="list-style-type: none"> Existing Needs Improvement Recommended <p>Fixed Guideway</p> <ul style="list-style-type: none"> Existing Needs Improvement Recommended 	<p>Operational Strategies</p> <ul style="list-style-type: none"> Existing Needs Improvement Recommended <p>Rail Corridor</p> <ul style="list-style-type: none"> Active Inactive Recommended 	<p>High Speed Rail Corridor</p> <ul style="list-style-type: none"> Existing Recommended <p>Rail Stops</p> <ul style="list-style-type: none"> Existing Recommended 	<p>Intermodal Connector</p> <ul style="list-style-type: none"> Existing Recommended <p>Park and Ride Lot</p> <ul style="list-style-type: none"> Existing Recommended
-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Public Transportation and Rail Map

Ashe County North Carolina Comprehensive Transportation Plan

Appendix F
Priority Calculator
Priority Calculator Spreadsheet
Preliminary Cost Estimates

**Town of West Jefferson
Comprehensive Pedestrian Plan 2010
Priority Calculator**

	Existing Corridor Ped. Facility Condition	Accessible Ped. Facilities	Traffic Volume	Traffic Speed	Accident History	POG/Public Recommendation	Safety Score	Schools	Medical Facilities	Recreation/Leisure	Retail Center	Downtown	Connectivity Score	Total Score
Point Range	1-3	1-2	1-4	1-4	#(4)	1-2		#(4)	1-3	1-3	1-3	1-2		
High Priority														
Hwy 221	3	2	4	4	0	2	15.0	4	1	3	3	2	13	28.0
Mt. Jefferson Road	3	2	1	3	0	2	11.0	4	1	2	3	1	11	22.0
Jefferson Avenue	2	1	4	2	0	2	11.0	0	1	3	3	2	9	20.0
Back Street	3	2	1	2	0	2	10.0	0	1	3	3	2	9	19.0
Medium Priority														
2nd Street	3	2	2	2	0	1	10.0	0	1	2	3	2	8	18.0
Campus Drive	3	2	1	2	0	1	9.0	4	1	2	1	1	9	18.0
Beaver Creek School Road	3	2	1	4	0	2	12.0	0	1	1	3	1	6	18.0
Main Street	2	2	1	2	0	2	9.0	0	1	2	3	2	8	17.0
6th Avenue	3	2	1	2	0	1	9.0	0	1	1	2	2	6	15.0
Low Priority														
Hice Avenue	3	2	1	2	0	2	10.0	0	1	1	1	2	5	15.0
Hamilton Aveune	3	2	1	2	0	2	10.0	0	1	1	1	2	5	15.0
School Avenue	3	2	1	2	0	1	9.0	0	1	1	1	2	5	14.0
Long Street	3	2	1	2	0	1	9.0	0	1	1	1	2	5	14.0
Northern West Jefferson Greenway						2	2.0	0	1				1	3.0
Ray Taylor Road - Jefferson Avenue Connector						2	2.0	0	1				1	3.0
Gallery Alley						1	1.0	0	1				1	2.0

Point Range Key

Safety	
Existing Ped. Corridor Facility Condition	1=Good, 2=Fair/incomplete, 3=None/Poor
Major Intersection Facilities	1=Exists, 2=None
Traffic Volume	1=0-4,999, 2=5,000-9,999, 3=10,000-11,999, 4=12,000+
Traffic Speed	1=Under 25mph, 2=25-34mph, 3=35-44mph, 4=45+mph
Accident History	The number of reported accidents in 10 years X 4
Other	
POG/Public Recommendation	1=Not from POG or public recommendations, 2=A POG or Public Recommendation
Connectivity	
Schools	The number of schools located along the corridor
Medical Facilities	1=None, 2=Clinics, Private Med. Offices, 3=Hospital or EMS station
Recreation/Leisure	1=None, 2=(1) park/rec. facility, 3=(2+) park/rec. facility
Retail Destinations	1=None, 2=(1-4) retail locations, 3=(4+) retail locations
Downtown	1=Not in Downtown, 2=Within downtown

The higher the overall score the higher the need for pedestrian facilities, thus higher the priority rating.

Town of West Jefferson

Comprehensive Pedestrian Plan 2010

Preliminary Cost Estimates

High Priority Corridors - GAPS

	Type of Facility	Primary Pedestrian Corridor	From	To	Length of 5' Sidewalk (\$50 per lf)	Length of 10' Greenway (\$130 per lf)	Curb Ramps (\$1,000 ea.)	Crosswalks (\$200 ea.)	Traffic Signals (\$40,000 ea.)	Pedestrian Signals (\$2,400 ea.)	Probable Cost Estimate	NCDOT TIP Project
Hwy 221												
1	Sidewalk	Hwy 221 (North Side)	Mt. Jefferson Rd.	Doggett Road	2,430		2				\$123,500	
2	Sidewalk	Hwy 221 (North Side)	Doggett Rd.	6th Avenue	1,770		8				\$96,500	
3	Sidewalk	Hwy 221 (North Side)	6th Avenue	Jefferson Avenue	978		2	3		3	\$58,700	
4	Sidewalk	Hwy 221 (South Side)	Greenway	6th Avenue	666		2	1			\$35,500	
5	Sidewalk	Hwy 221 (South Side)	6th Avenue	Jefferson Avenue	507		4				\$29,350	
Subtotal Sidewalk Improvements					6,351						\$343,550	
Mt. Jefferson Road												
1	Sidewalk	Mt. Jefferson Road (West Side)	Hwy 221	Mt. Jefferson St. Park Road	2,436		4	2			\$126,200	
2	Sidewalk	Mt. Jefferson Road (West Side)	Mt. Jefferson St. Park Road	Campus Drive	1,562		4	2		1	\$84,900	
3	Sidewalk	Mt. Jefferson Road (West Side)	Campus Drive	Hwy 221 Access	2,601		2				\$132,050	
4	Sidewalk	Mt. Jefferson Road (West Side)	Hwy 221 Access	Oakwood Drive	1,164		2				\$60,200	
5	Sidewalk	Mt. Jefferson Road (East Side)	Mt. Jefferson St. Park Road	Campus Drive	1,562						\$78,100	
6	Sidewalk	Mt. Jefferson Road (East Side)	Campus Drive	Hwy 221 Access	2,601						\$130,050	
7	Sidewalk	Mt. Jefferson Road (East Side)	Hwy 221 Access	Oakwood Drive	1,164						\$58,200	
Subtotal Sidewalk Improvements					13,090						\$669,700	
Jefferson Avenue												
1	Sidewalk	Jefferson Avenue (West Side)	6th Street	2nd Street	1,472		4				\$77,600	
2	Spot Improvement	Jefferson Avenue (East Side)	2nd Street	Hamilton Street			8	3		2		
3	Spot Improvement	Jefferson Avenue (West Side)	2nd Street	Hamilton Street			4	4				
4	Sidewalk	Jefferson Avenue (West Side)	Hamilton Street	Stringer Dirve	3,131		9	2		1	\$168,350	
5	Sidewalk	Jefferson Avenue (West Side)	Stringer Dirve	Speaks Drive	2,673		2				\$135,650	
6	Sidewalk	Jefferson Avenue (West Side)	Speaks Drive	Hwy. 221 BYP.	1,575		5	2		1	\$86,550	
7	Sidewalk	Jefferson Avenue (East Side)	6th Street	4th Street	312		4				\$19,600	
8	Sidewalk	Jefferson Avenue (East Side)	Hamilton Street	Stringer Dirve	3,131		3				\$159,550	
9	Sidewalk	Jefferson Avenue (East Side)	Stringer Dirve	Hampton Inn Driveway	2,673		1				\$134,650	
Subtotal Sidewalk Improvements					14,967						\$781,950	
Backstreet												
1	Sidewalk	Backstreet (West Side)	2nd Street	Main Street	535		1	1			\$27,950	
2	Sidewalk	Backstreet (West Side)	Main Street	Ashe Street	545		1	2			\$28,650	
3	Sidewalk	Backstreet (East Side)	2nd Street	Main Street	530		2	1			\$28,700	
4	Sidewalk	Backstreet (East Side)	Main Street	Ashe Street	540		3	2			\$30,400	
Subtotal Sidewalk Improvements					2,150						\$115,700	
Total Pedestrian Improvements for High Priority Corridors					36,558						\$1,910,900	

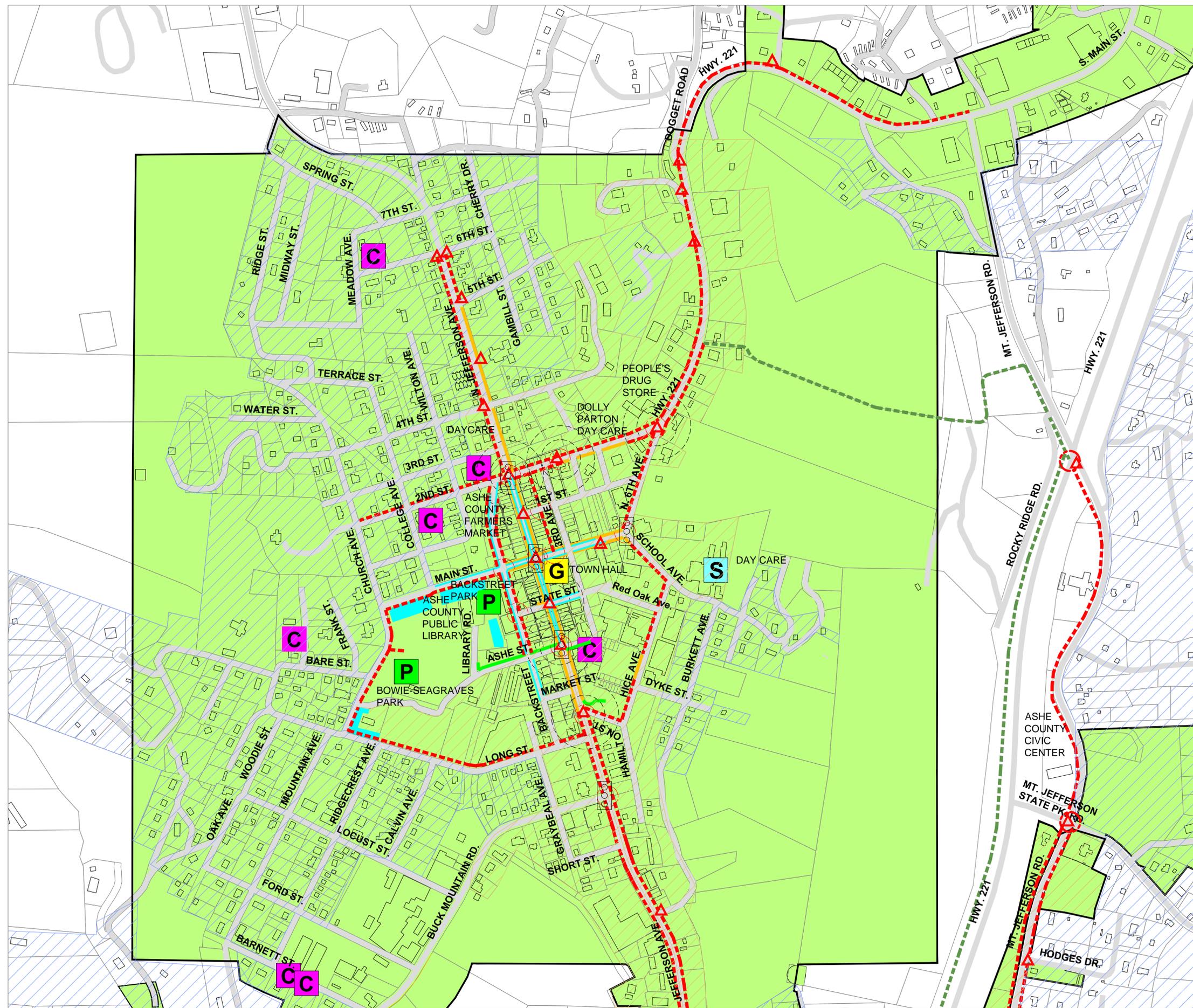
Appendix G
Facility Proposed Maps

Town of West Jefferson

Comprehensive Pedestrian Plan

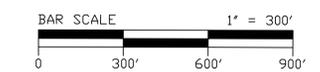
Proposed Improvements

NORTH
Map 3



Legend

-  West Jefferson Town Limits
-  West Jefferson Extra Territorial Jurisdiction
-  Streets
-  Existing Sidewalk Fair Condition
-  Existing Sidewalk Poor Condition
-  Existing Sidewalk Good Condition
-  Existing Trail
-  Proposed Curb Cuts/Tactile Warning
-  Proposed Sidewalk
-  Proposed Multi-Purpose/Greenway Trail
-  Proposed Pedestrian Signal
-  Proposed Crosswalk
-  Church/Cultural
-  School
-  Government Facility
-  Park
-  Existing Traffic Signal
-  Residential
-  Commercial/Retail
-  Public Parking



Town of West Jefferson

Comprehensive Pedestrian Plan

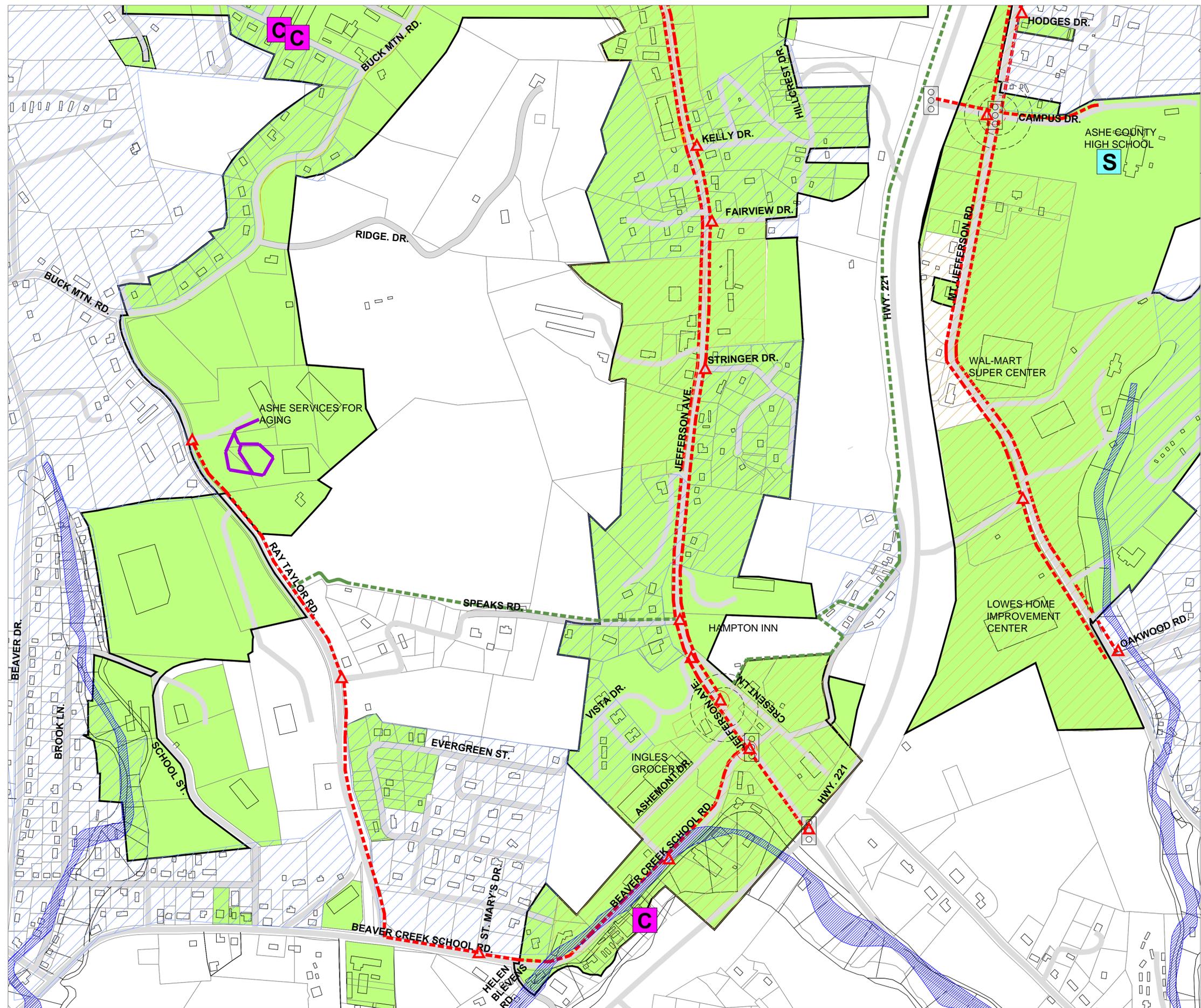
Proposed Improvements

SOUTH

Map 4

Legend

-  West Jefferson Town Limits
-  West Jefferson Extra Territorial Jurisdiction
-  Streets
-  Existing Sidewalk Fair Condition
-  Existing Sidewalk Poor Condition
-  Existing Sidewalk Good Condition
-  Existing Trail
-  Proposed Curb Cuts/Tactile Warning
-  Proposed Sidewalk
-  Proposed Multi-Purpose/Greenway Trail
-  Proposed Pedestrian Signal
-  Proposed Crosswalk
-  Church/Cultural
-  School
-  Government Facility
-  Park
-  Existing Traffic Signal
-  Residential
-  Commercial/Retail



Appendix H

Commonly Used Abbreviations



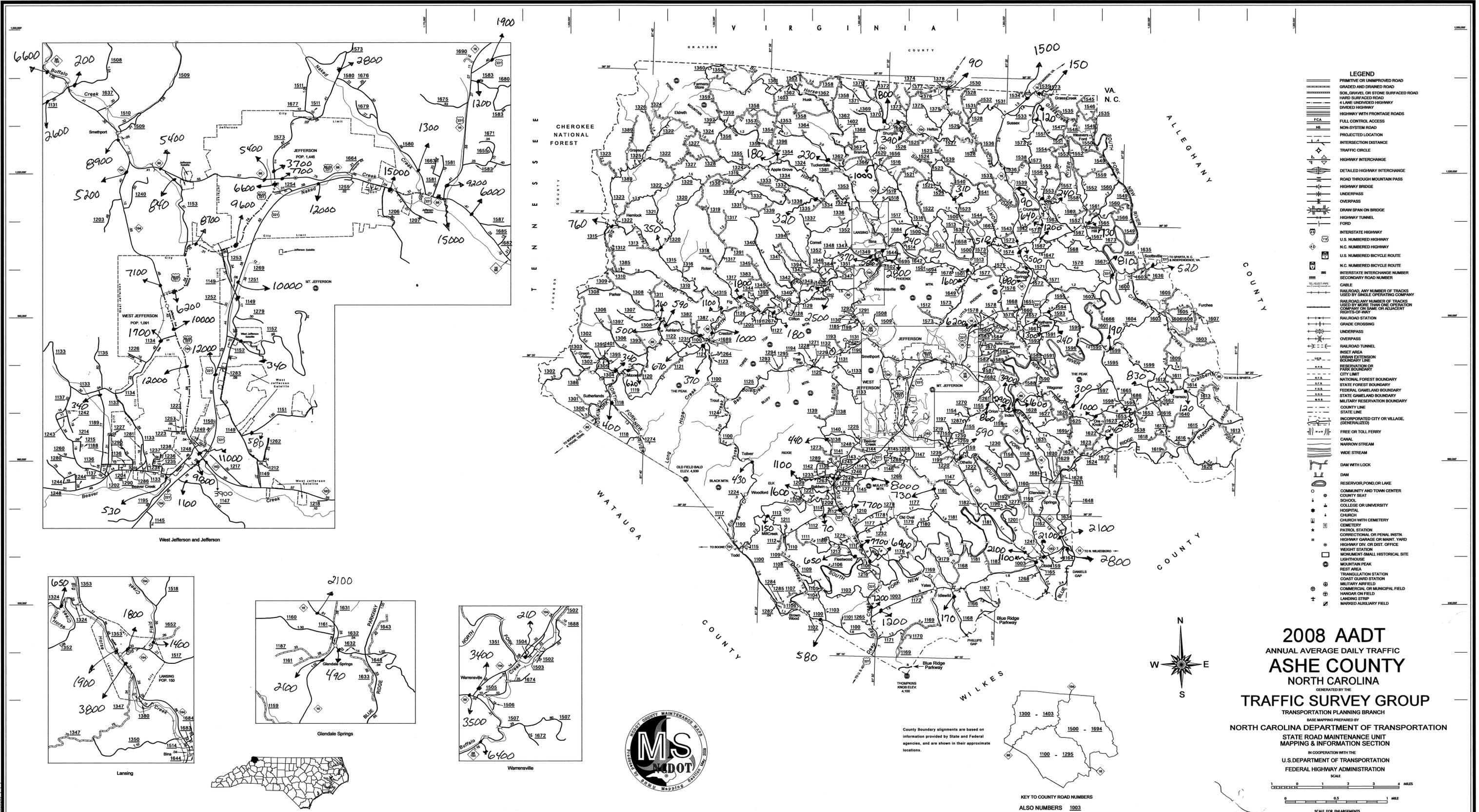
COMMONLY USED ABBREVIATIONS

AASHTO	American Association of State Highway Transportation Officials
ADA	Americans with Disabilities Act
ACHC	Ashe County Healthy Carolinians
ACHD	Ashe County Health Department
ACTA	Ashe County Transportation Authority
ADHD	Appalachian District Health Department
AMH	Ashe Memorial Hospital
ASA	Ashe Services for Aging, Inc.
BRNHA	Blue Ridge National Heritage Area
CDBG	Community Development Block Grant
CIP	Capital Improvement Plan
CTP	Comprehensive Transportation Plan
CWMTF	Clean Water Management Trust Fund
DBPT	Division of Bicycle and Pedestrian Transportation
EEP	Ecosystem Enhancement Program
ESMM	Eat Smart Move More
ETJ	Extraterritorial Jurisdiction
FHA	Federal Highway Administration
FHWA	Federal Highway Administration
GHSP	Governor's Highway Safety Program
HCCOG	High Country Council of Governments
HSIP	Highway Safety Improvement Program
HSRC	Highway Safety Research Center
HWTF	Health and Wellness Trust Fund
HUD	Housing and Urban Development
IWSD	International Walk to School Day
LWCF	Land and Water Conservation Fund

MSA	Master Settlement Agreement
MUTCD	Manual of Uniform Traffic Control Devices
NCBW	National Center for Bicycling and Walking
NCCF	North Carolina Community Foundation
NCDA&CS	North Carolina Department of Agriculture & Consumer Services
NCDENR	North Carolina Department of Environment and Natural Resources
NCDOT	North Carolina Department of Transportation
N.C.CTC	North Carolina Conservation Tax Credit
NC STEP	North Carolina Small Towns Economic Prosperity
NCWRC	North Carolina Wildlife Resources Commission
NHTF	National Heritage Trust Fund
NHTSA	National Highway Traffic Safety Administration
PARTF	Parks and Recreation Trust Fund
PBIC	Pedestrian and Bicycle Information Center
P.O.G.	Project Oversight Group
PSAP	Pedestrian Safety Action Plan
RPO	Rural Planning Organization
RTCA	Rivers, Trails, and Conservative Assistance
RTP	Recreational Trails Program
SAFETEA	Safe, Accountable, Flexible, Efficient Transportation Act
SRTS	Safe Routes to School
STMS	Small Town Main Street
SWP	Statewide Planning Branch
STP	Surface Transportation Program
TIP	Transportation Improvement Program
TPB	Transportation Planning Branch
UNC	University of North Carolina at Chapel Hill
USDOC	United States Department of Commerce
USDOI	United States Department of the Interior
USDOT	United States Department of Transportation
WJCP	West Jefferson Community Partnership

Appendix I
Ashe County Traffic Survey Group

Disclaimer: The IMG Unit's goal is to provide the most accurate information as possible, the magnitude of the data provided any guarantee of accuracy or completeness. If you find any information that is incorrect, please send your request to the IMG Unit.



- LEGEND**
- PRIMITIVE OR UNIMPROVED ROAD
 - GRADED AND DRAINED ROAD
 - SOIL DRIVEWAY OR STONE SURFACED ROAD
 - HARD SURFACED ROAD
 - 4 LANE UNDIVIDED HIGHWAY
 - DIVIDED HIGHWAY
 - HIGHWAY WITH FRONTAGE ROADS
 - FCA FULL CONTROL ACCESS
 - NS NON-SYSTEM ROAD
 - PROJECTED LOCATION
 - INTERSECTION DISTANCE
 - TRAFFIC CIRCLE
 - HIGHWAY INTERCHANGE
 - DETAILED HIGHWAY INTERCHANGE
 - ROAD THROUGH MOUNTAIN PASS
 - HIGHWAY BRIDGE
 - UNDERPASS
 - OVERPASS
 - DRAW SPAN ON BRIDGE
 - HIGHWAY TUNNEL
 - FORD
 - INTERSTATE HIGHWAY
 - U.S. NUMBERED HIGHWAY
 - N.C. NUMBERED HIGHWAY
 - U.S. NUMBERED BI-CYCLE ROUTE
 - N.C. NUMBERED BI-CYCLE ROUTE
 - INTERSTATE INTERCHANGE NUMBER
 - SECONDARY ROAD NUMBER
 - CABLE
 - RAILROAD, ANY NUMBER OF TRACKS USED BY SINGLE OPERATING COMPANY
 - RAILROAD, ANY NUMBER OF TRACKS USED BY MORE THAN ONE OPERATING COMPANY ON SAME OR ADJACENT RIGHTS OF WAY
 - RAILROAD STATION
 - GRADE CROSSING
 - UNDERPASS
 - OVERPASS
 - RAILROAD TUNNEL
 - INLET AREA
 - URBAN EXTENSION BOUNDARY LINE
 - RESERVATION OR PARK BOUNDARY
 - CITY LIMIT
 - NATIONAL FOREST BOUNDARY
 - STATE FOREST BOUNDARY
 - FEDERAL GAMES AND BOUNDARY
 - STATE GAMESLAND BOUNDARY
 - MILITARY RESERVATION BOUNDARY
 - COUNTY LINE
 - STATE LINE
 - INCORPORATED CITY OR VILLAGE (GENERALIZED)
 - FREE OR TOLL FERRY
 - CANAL
 - NARROW STREAM
 - WIDE STREAM
 - DAM WITH LOCK
 - DAM
 - RESERVOIR, POND, OR LAKE
 - COMMUNITY AND TOWN CENTER
 - COUNTY SEAT
 - SCHOOL
 - COLLEGE OR UNIVERSITY
 - HOSPITAL
 - CHURCH
 - CHURCH WITH CEMETERY
 - CEMETERY
 - PATROL STATION
 - CORRECTIONAL OR PENAL INSTL.
 - HIGHWAY GARAGE OR MAINT. YARD
 - HIGHWAY DR. OR DIST. OFFICE
 - WEIGHT STATION
 - MONUMENT-SMALL HISTORICAL SITE
 - LIGHTHOUSE
 - MOUNTAIN PEAK
 - REST AREA
 - TRIANGULATION STATION
 - COAST GUARD STATION
 - MILITARY AIRFIELD
 - COMMERCIAL OR MUNICIPAL FIELD
 - HANGAR ON FIELD
 - LANDING STRIP
 - MARKED AUXILIARY FIELD

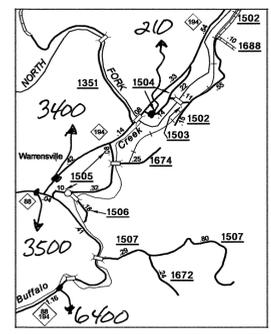
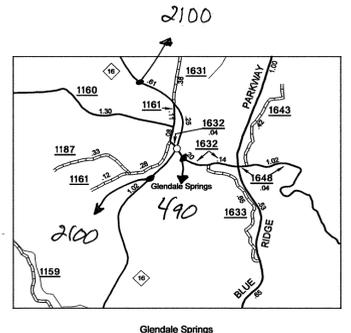
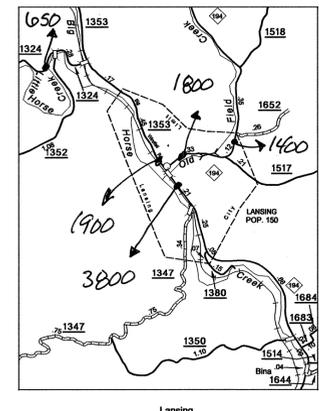
2008 AADT
ANNUAL AVERAGE DAILY TRAFFIC
ASHE COUNTY
NORTH CAROLINA
GENERATED BY THE
TRAFFIC SURVEY GROUP

TRANSPORTATION PLANNING BRANCH
DATA MAPPING PREPARED BY
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
STATE ROAD MAINTENANCE UNIT
MAPPING & INFORMATION SECTION

IN COOPERATION WITH THE
U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

SCALE
 0 1 2 3 4 MILES
 0 0.5 1 MILE
 SCALE FOR ENLARGEMENTS

1000 FOOT GRID BASED ON NORTH CAROLINA PLANE COORDINATE SYSTEM
 POLYCONIC PROJECTION

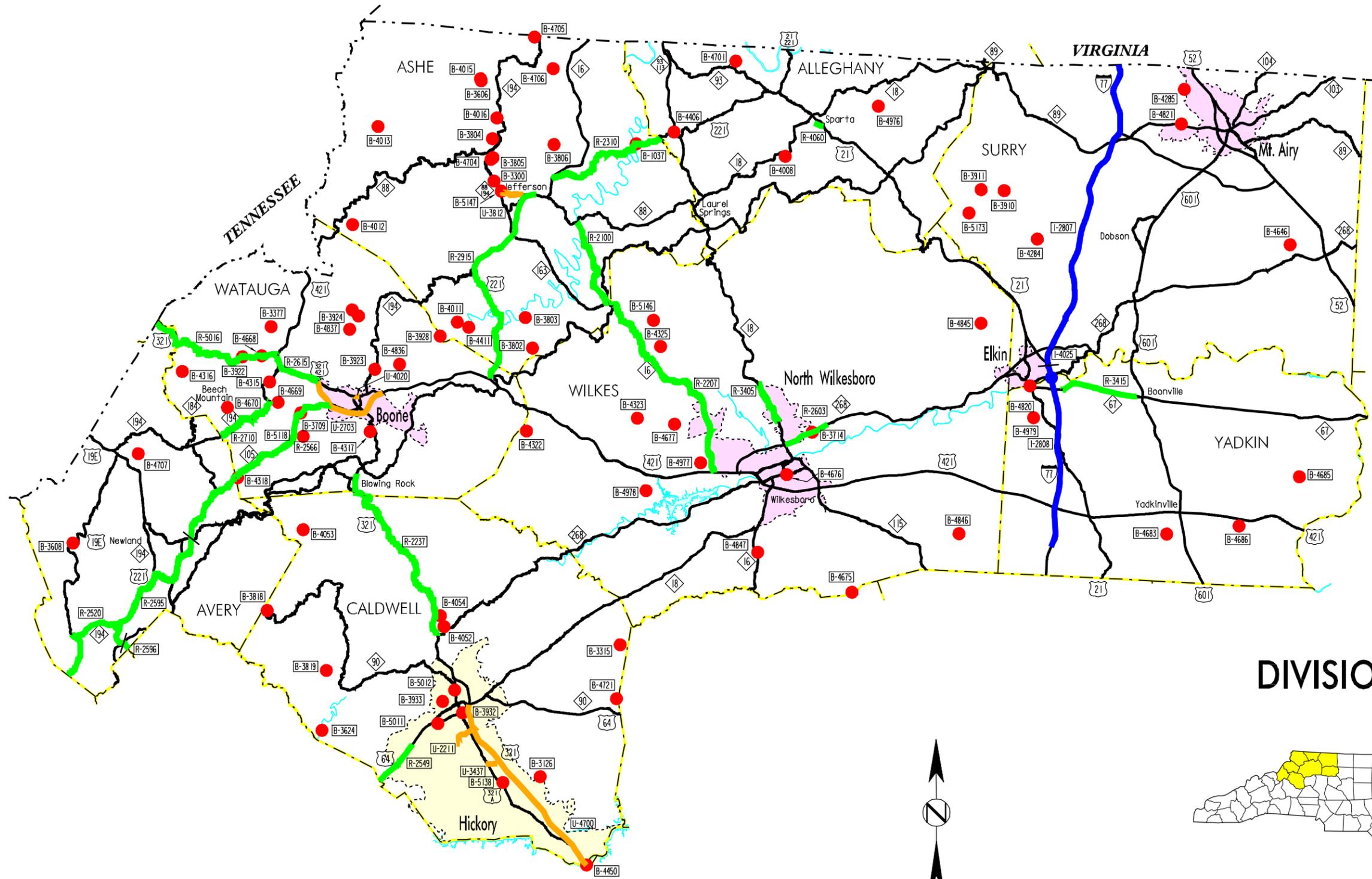


REVISED

10/10/01	JCH
02/20/02	JCH
12/14/03	JCH
11/15/04	JCH
09/08/05	JCH
02/27/06	BDD
11/20/06	BDD
01/11/08	BDD

NOTE: MAP INCLUDES ONLY STATE MAINTAINED ROADS
 OR IMPORTANT NON-SYSTEM ROADS.
 ROADS SHOWN AS OF JUN 11, 2008

Appendix J
West Jefferson Division Map



DIVISION 11



LEGEND

- INTERSTATE PROJECTS
- RURAL PROJECTS
- URBAN PROJECTS
- BRIDGE REPLACEMENT PROJECTS

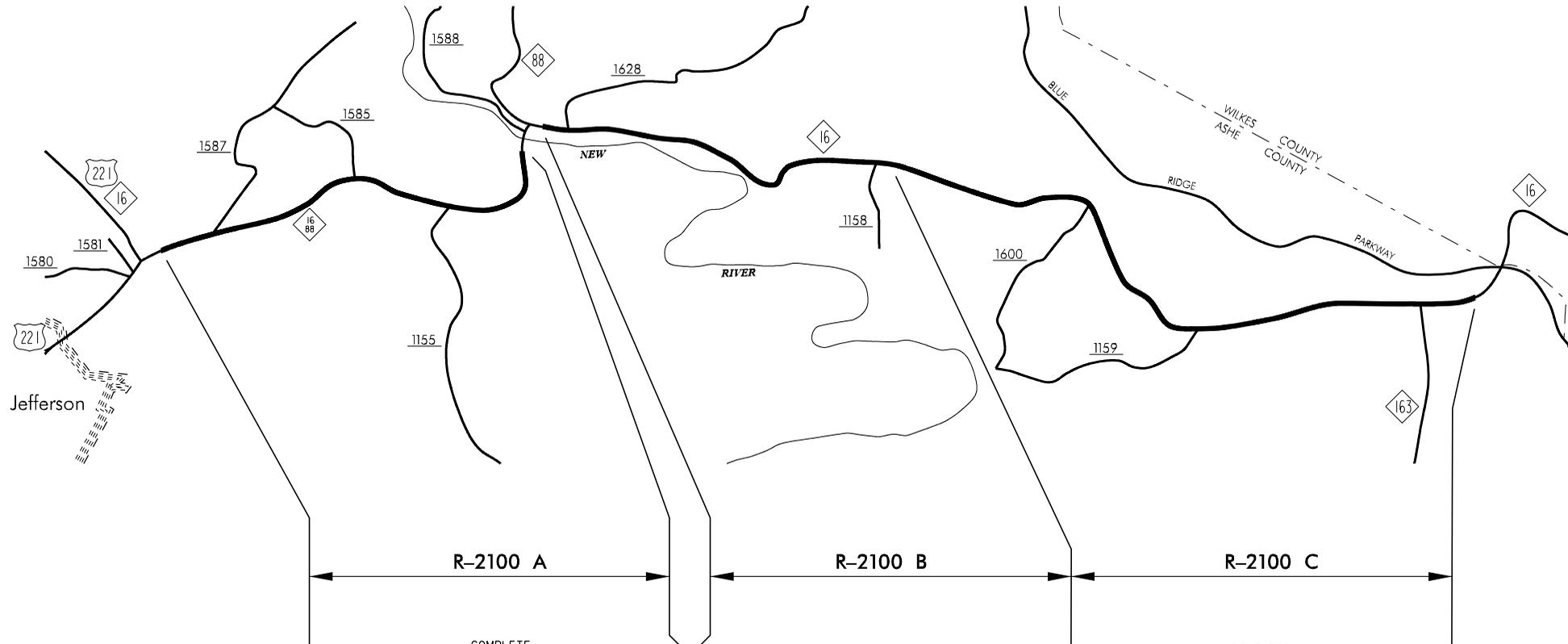
Appendix K
R2100 - Ashe County

R-2100

ASHE COUNTY NC 16

PROJECT BREAKDOWN MAP

PROJECT SCHEDULES AND COSTS ARE ACCURATE AS OF DATE SHOWN



R-2100

	COMPLETE R-2100 A	R-2100 B	COMPLETE R-2100 C
I.D. NO. / D.S.R. NO.	R-2100 A	R-2100 B	R-2100 C
STATE PROJECT NO. (P.E.) / WBS*	34369	34369	34369
PROJECT ENGINEER	MCMILLAN	B. TAYLOR	MCMILLAN
PROJECT DESCRIPTION	EAST OF US 221 NEAR JEFFERSON TO WEST OF SOUTH FORK OF NEW RIVER	SOUTHEAST OF NC 88 TO SOUTHEAST OF SR 1158	SOUTHEAST OF SR 1158 TO WEST OF THE BLUE RIDGE PARKWAY
COUNTY / DIVISION	ASHE / DIV. 11	ASHE / DIV. 11	ASHE / DIV. 11
LENGTH	2.846 MILES	2.40 MILES	4.39 MILES
TYPE OF CONTRACT			
REMARKS			
BEGIN R/W ACQUISITION (T.I.P.)	3-96	1-08	3-96
BEGIN R/W ACQUISITION (PRODUCTION)			
PROPOSED LETTING (T.I.P.)	6-98	FY-10	11-01
PROPOSED LETTING (PRODUCTION)			
EST. COMP. DATE (T.I.P.)	12-99		11-04
ESTIMATED R/W / UTILITY COST	\$ 1,275,000	\$ 655,000	\$ 2,065,000
ESTIMATED CONSTRUCTION COST	\$ 4,200,000	\$ 13,100,000	\$ 7,500,000

