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**City of Dunn Pedestrian Plan**  
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# City of Dunn Pedestrian Plan

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The City of Dunn's Comprehensive Pedestrian Plan makes recommendations for policies, programs and projects that - when implemented - will improve walkability and help make Dunn a more pedestrian-friendly community.

## Executive Summary

The intent of the Dunn Comprehensive Pedestrian Plan is to provide guidance for making the City of Dunn a more pedestrian-friendly community. Partially funded by a grant from NCDOT and matching funds from the City of Dunn, the Pedestrian Plan serves several purposes, including:

- To promote a better understanding of the measures that can be taken to create more and safer walking trips in Dunn;
- To identify in the Plan a clear schedule of projects, programs, and policies that Dunn and partnering agencies can complete to improve the walking environment; and
- During the planning process and afterwards, to create a better awareness of walking as a viable mode of transportation that can serve as a reliable substitute for some trips being made by private auto now; contribute to a healthier lifestyle; and reduce carbon and other emissions associated with motorized travel.

The Pedestrian Plan offers guidance for future pedestrian-related projects and improvements in the City, as well as recommended programs and policies that will improve local walking conditions. The results of the Plan will be a safe, accessible pedestrian system, as well as programs and policies that encourage residents and visitors alike to walk, rather than drive, around town.



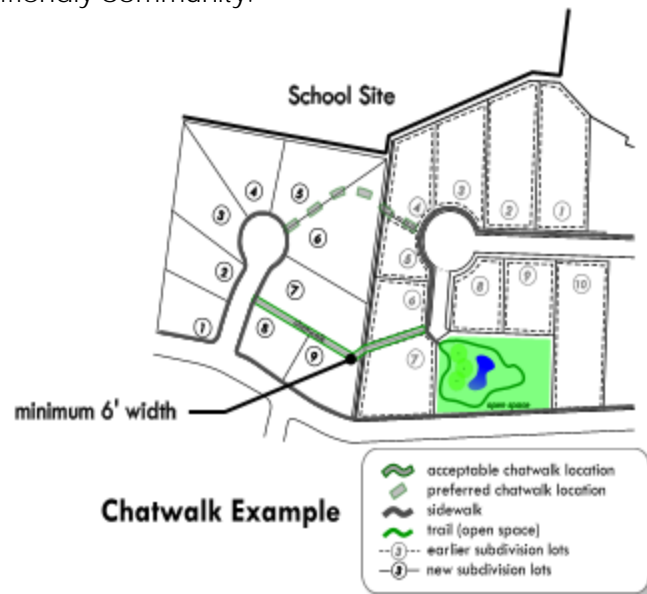
**VISION: “The City of Dunn is a safe, easy, and attractive environment for all of its citizens and visitors to traverse on foot, an increasingly popular way of transportation that is created through many partnerships.”**

Using this plan as a guide, the City of Dunn should be able to create a better, safer network of sidewalks, greenway trails and crossings for pedestrians. The City's next steps should begin to immediately address the short-term priority program, policy, and project recommendations. At the same time, the City should also start to lay the groundwork for the longer term recommendations by developing relationships with potential partners such as the Dunn Chamber of Commerce, the Harnett County Health Department, the North Carolina Department of Transportation and the Betsy Johnson Hospital, and by starting to

## City of Dunn Pedestrian Plan Executive Summary

budget for future projects. Most importantly, the City should continue its efforts to raise awareness about the importance of making a community more walkable in order to continue to cultivate support for more pedestrian improvements and programs. Residents, visitors, and local leaders should be familiar with the economic, health, and environmental benefits of a community in which there is less dependence on automobiles and more reliance on foot travel as not only a form of recreation, but also as a form of transportation.

As a small city anticipating significant growth and development, Dunn is in an ideal situation to develop a more walkable community. The City should capitalize on its location and its attractions, such as the Dunn-Erwin Trail, to reinforce its existing pedestrian infrastructure with new projects and improvements. With careful planning, deliberate steps and persistence, Dunn can become a more pedestrian-friendly community.



The Pedestrian Plan's recommendations include many projects, policies and programs to improve walking conditions around schools, parks and neighborhoods. For instance, one policy recommends that Dunn require short greenway or "chatwalk" connections between new cul-de-sac developments and adjacent parks, schools or residential uses, where appropriate. This can greatly shorten walking distances and enhance the local pedestrian network by providing short, safe links between neighborhoods and commercial centers.



### BENEFITS OF A WALKABLE COMMUNITY

- More people walking means **fewer cars on the road** and **less pollution**
- Walkable communities offer more **mobility independence for youth and elderly residents**, as well as those who are physically-disabled
- Not of all Dunn's residents drive – walkability means more **transportation choices** for everyone
- More active communities are healthier communities; walking for recreation or transportation **improves health and well-being** for all residents who choose to do so
- Improved health results in **decreased health care costs**
- Less pollution, multiple transportation choices and more recreational facilities lead to a **higher quality of life** for residents
- More "liveable" communities with greenway trails and other pedestrian amenities **attract residents, businesses and tourists**, according to national research, which leads to citywide economic benefits.

Short-term Recommendations (1 – 5 years)

SIDEWALK PROJECTS				
Proposed Sidewalk Location	From	To	Length (Feet)	Est. Project Cost
Cumberland 1 (US421)	General Lee	Broad	2527	\$126,329
Clinton (US301)	Cleveland	Granville	1721	\$86,071
Johnson	Railroad	Magnolia	1077	\$80,757
Divine	Canterbury	General Lee	1354	\$67,709
Pearsall 1	Watauga	Railroad	4031	\$130,550*
Granville 1 (US301)	King	Johnson	2787	\$139,348
Magnolia	Edgerton	Johnson	1774	\$133,067
POLICIES				
Description			Type	
Adopt Minimum Sidewalk Requirements			Ordinance	
Adopt ROW Dedication Requirement			Ordinance	
Adopt Sidewalk and Greenway Connection Requirement			Ordinance	
Adopt Street Tree Ordinance			Ordinance	
Establish Parking Lot Design and Setback Standards			Ordinance	
School Zone Designation			Internal Policy	
Establish a Bicycle/Pedestrian Advisory Committee			Planning Effort	
Develop a Citywide Bicycle Plan			Planning Effort	
Establish Payment In-lieu Policy			Internal Policy/ Ordinance	
Signage, Pedestrian Signals and Signal Timing			Internal Policy	
Develop a Downtown Streetscape Plan			Planning Effort	
PROGRAMS				
Description		Type	Potential Partners	
Safe Routes to School Program		Education	Harnett County Schools	
Walk to School Day		Encouragement	Harnett County Schools	
DuWalk Signed Route		Encouragement	Chamber of Commerce	
Pedestrian Safety Campaign		Education	Dunn Police Department	

\* 3-blocks (1,420 ft) of existing sidewalk deducted from total estimated cost for Pearsall 1 corridor project

Mid-term Recommendations (6 - 10 years)

SIDEWALK PROJECTS				
Proposed Sidewalk Location	From	To	Length (Feet)	Est. Project Cost
Broad	General Lee	Cumberland	2525	\$126,250
McKay 1	Broad	Granville	3217	\$241,304
Granville 2 (US301)	Morris	King	2045	\$122,657
Edgerton 1	Fayetteville	Wilmington	2714	\$135,718
Washington	Hodges	Cleveland	5074	\$380,521
Erwin	Tilghman	Cumberland	2534	\$126,705
Cumberland 2 (US421)	Broad	Powell	2008	\$150,608
Pearsall 2	Elm	Sampson	2475	\$185,649
Sampson	Pearsall	Codrington Park	2464	\$184,766
Meadowlark	Fairground	Chelsea	3086	\$231,473
Elm	Duke	Jackson	3042	\$228,181
POLICIES				
Description			Type	
Curb Ramp Retrofit Program			Internal Policy	
Establish Overlay Districts			Ordinance	
Parks & Open Space Planning			Planning Effort	
Traffic Calming Toolbox			Planning Effort	
Establish Sidewalk Petition Process			Internal Policy	
Participate in the N.C. Main Streets Program			Planning Effort	
PROGRAMS				
Description		Type	Potential Partners	
Healthy Dunn Program		Encouragement	Betsy Johnson Hospital, Harnett Co. Health Dept	
Weekly Walking Tours		Encouragement	Dunn-Erwin Trail Committee; Local Boy/Girl Scout Troops	
Dunn 5K Walk/Run Event		Encouragement	Chamber of Commerce	
Pace Car Program		Enforcement	Dunn Police Department	



Long-term Recommendations (11+ years)

SIDEWALK PROJECTS				
Proposed Sidewalk Location	From	To	Length (Feet)	Est. Project Cost
Wilson	Edgerton	Granville	2839	\$212,908
Spring Branch	Pope	Jackson	4600	\$229,991
Friendly	Powell	Fairground	6812	\$510,878
McKay 2	Susan Tart	Broad	3678	\$275,854
Edgerton 2	Wilmington	Holland	2148	\$161,119
Susan Tart	Tilghman	McKay	3613	\$271,005
Cumberland 4 (US421)	Sampson	Winterlochen	3860	\$289,491
Fairground	US301	Beale	4834	\$362,579
Duke	McKay	Hodges	2777	\$208,268
Cumberland 3 (US421)	Powell	ETJ (Black River)	3861	\$289,563
Tilghman	Susan Tart	Erwin	3275	\$245,603
Jackson	Hodges	Spring Branch	2709	\$203,188
POLICIES				
Description			Type	
Develop and Adopt Street Design Criteria			Planning Effort/Ordinance	
PROGRAMS				
Description		Type	Potential Partners	
Commuter Challenge Event		Encouragement	Chamber of Commerce	
Traffic Enforcement		Enforcement	Dunn Police Department	

Other Physical Improvements

In addition to the proposed sidewalk improvements listed in the implementation schedules above, a number of other recommendations have been made throughout the Plan to produce beneficial changes in Dunn’s pedestrian environment. These include several “spot improvement” projects that should be considered opportunity-based projects, as well as construction of several new

## City of Dunn Pedestrian Plan

### Executive Summary

greenway trails which will produce a valuable recreational and transportation asset to Dunn. These recommendations are listed below.

#### Spot Improvement Priorities for Dunn's sidewalk network

Proposed Spot Improvement	From	To	Proposed Action	Length (Feet)	Estimated Cost
<b>Carr</b>	Clinton	Washington	2-block sidewalk gap project	789	\$ 59,211
<b>Cumberland</b>	Washington	Wilmington	1-block sidewalk gap project	450	\$ 22,500
<b>General Lee</b>	Pearsall	Broad	3-block sidewalk gap project	1118	\$ 55,900
<b>Guy*</b>	Granville	Friendly	3-block sidewalk gap project	1160	\$ 87,000
<b>Johnson</b>	Burke	Granville	1-block sidewalk gap project	305	\$ 22,872
<b>Orange</b>	Surles	Barrington	2.5-block sidewalk gap project	1064	\$ 53,183
<b>Pope</b>	Fayetteville	Clinton	3-block sidewalk gap project	1175	\$ 58,727
<b>Powell*</b>	Ashe	Friendly	2-block sidewalk gap project	1607	\$ 120,525
<b>Vance</b>	Washington	Codrington Park	2-block sidewalk gap project	1337	\$100,240

\* Indicates added cost for curb & gutter (\$25/LF for C&G plus \$50/LF for sidewalk)

#### Final Greenway Trail Recommendations (in priority order)

Phase	Proposed Greenway Trail	Total Trail Length	Estimated Cost (Paved Trail)	Estimated Cost (Unpaved Trail)
<i>Short-term</i>	<b>Downtown Trail</b>	9,191ft* (1.74 miles) *6,600ft existing sidewalk on Ellis, Broad and Clinton Streets plus 2,591ft new trail along the railroad easement from Ellis to Clinton Streets for a downtown "loop"	\$ 343,000 (new trail) + signage	\$ 49,000 (new trail) + signage
<i>Mid-term</i>	<b>School Connector Trail</b>	8,010 ft (1.52 miles)	\$ 1,164,000	\$ 152,000
<i>Long-term</i>	<b>Hanna's Pond Trail</b>	11,150 ft (2.11 miles)	\$ 1,477,000	\$ 211,000
<i>Long-term</i>	<b>Black River Trail</b>	26,000 ft (4.92 miles)	\$ 3,444,000	\$ 492,000

Crossing improvements have been recommended to enhance pedestrian safety at local intersections and key pedestrian crossings. The proposed crossing improvements, categorized into implementation phases (based on priority) are included in the table below.

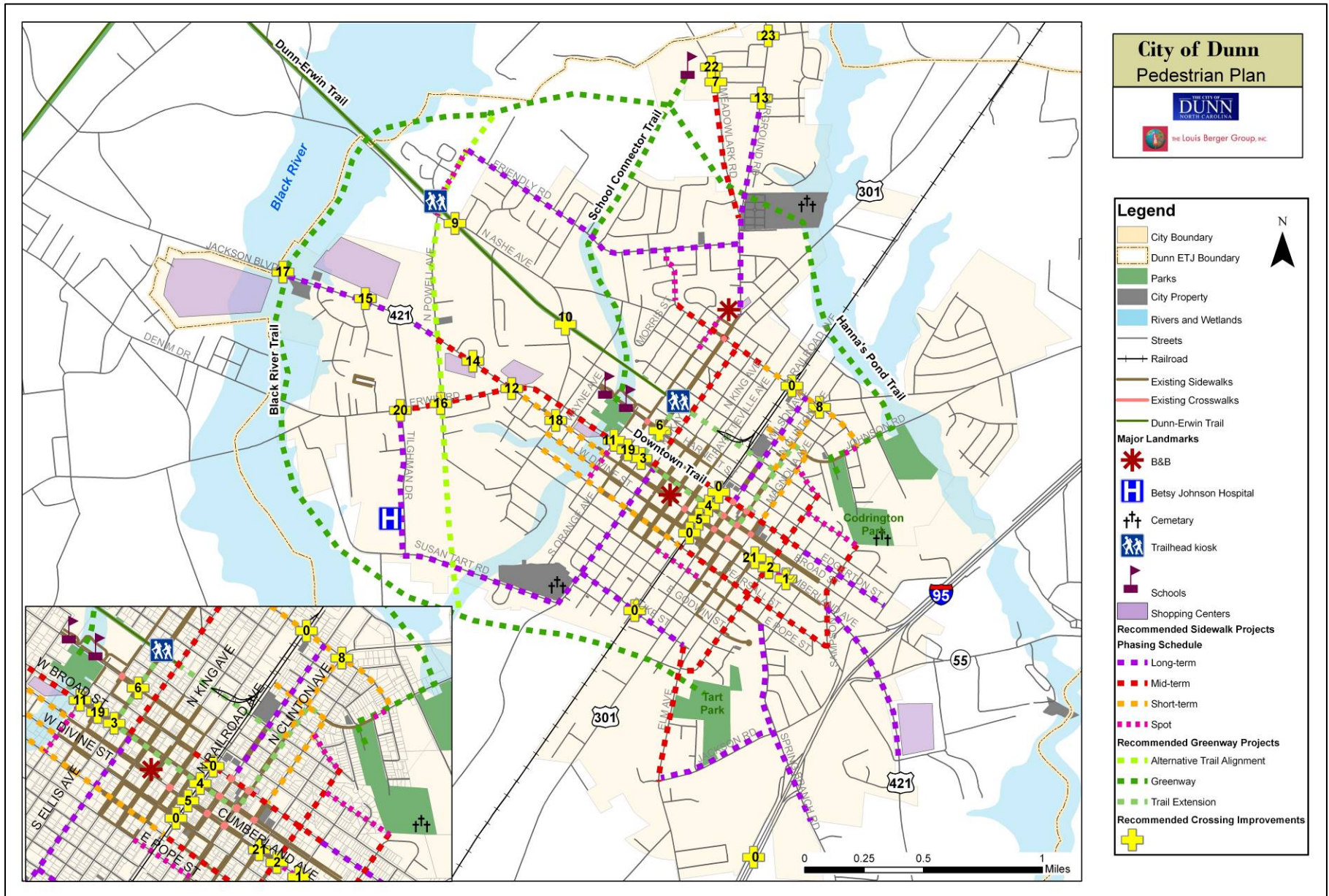
**Final Crossing Improvement Recommendations**

Phase	Priority	Crossing Location	Recommended Treatments	Estimated Cost
<i>Short</i>	1	Cumberland St & Wilmington St	New traffic signal with pedestrian signals and high-visibility crosswalks	\$101,200
<i>Short</i>	2	Cumberland St & Washington St	Standard crosswalks for north-south crossings (Washington St legs)	\$200
<i>Short</i>	3	Broad St & Ellis St	Add crosswalks and pedestrian signals to existing signalized intersection	\$5,000
<i>Short</i>	4	Broad St & RR	Create sidewalk connections; add transition over tracks	\$3,200
<i>Short</i>	5	Cumberland St & RR	Create sidewalk connections; add transition over tracks.	\$3,200
<i>Short</i>	6	Harnett St & Ellis St	Crosswalks and pedestrian signals; "No Right on Red" signage (4 legs)	\$5,360
<i>Short</i>	7	Meadowlark Rd & Chelsea St	Add mobile in-street "Yield to Peds" sign during school hours	\$250
<i>Short</i>	8	Granville St & Clinton Ave	Add crosswalks and pedestrian signals to existing signalized intersection	\$5,000
<i>Mid</i>	9	Ashe St & Dunn-Erwin Trail (south)	Install flashers, crosswalks & advanced "Ped Xing" pavement marking	\$5,700
<i>Mid</i>	10	Ashe St & Dunn-Erwin Trail (north)	Install flashers, crosswalks & advanced "Ped Xing" pavement marking	\$5,700
<i>Mid</i>	11	Broad St & General Lee St	Install high-visibility crosswalks and in-street "Yield to Peds" sign	\$2,200
<i>Mid</i>	12	Cumberland St & Broad St	Tighten curb radii; install median refuge islands, crosswalks, ped signals	\$35,000
<i>Mid</i>	13	Fairground Rd & Beale St	New traffic signal with pedestrian signals and high-visibility crosswalks	\$101,200
<i>Mid</i>	14	Cumberland St & Commerce Dr	Extend median refuge; install crosswalks and pedestrian signals	\$9,000
<i>Mid</i>	15	Cumberland St & Briarcliff Rd	Crosswalks & pedestrian signals; extend median refuge; tighten radii	\$35,000
<i>Mid</i>	16	Erwin Rd & Powell Rd	Add crosswalks and pedestrian signals to existing signalized intersection	\$5,000
<i>Mid</i>	17	Cumberland St & Black River Bridge	Add sidewalks & pedestrian railing to existing bridge	N/A
<i>Mid</i>	18	Cumberland St & Canterbury St	Further study needed	N/A
<i>Mid</i>	19	Broad St & Orange St	Install high-visibility crosswalks	\$ 1,200
<i>Long</i>	20	Erwin Rd & Tilghman Rd	New traffic signal with crosswalk & pedestrian signals; tighten curb radii	\$121,200
<i>Long</i>	21	Cumberland St & Elm St	Further study needed	N/A
<i>Long</i>	22	Meadowlark Rd & Beasley St	Further study needed	N/A
<i>Long</i>	23	Fairground Rd & Sycamore St	Further study needed	N/A
<i>Long</i>	NR	Granville St & RR	Transition over tracks when/if sidewalk installed	\$3,200
<i>Long</i>	NR	Divine St & RR	Transition over tracks when/if sidewalk installed	\$3,200
<i>Long</i>	NR	Duke St & RR	Transition over tracks when/if sidewalk installed	\$3,200
<i>Long</i>	NR	Edgerton & RR	Transition over tracks when/if sidewalk installed	\$3,200
<i>Long</i>	NR	I-95 Underpass	Construct pedestrian underpass during future I-95 construction	\$4 million

# City of Dunn Pedestrian Plan

## Executive Summary

This map illustrates the overall proposed pedestrian network for Dunn, including new sidewalks, greenway trails and intersection improvements.





This section introduces the key concepts behind the Dunn Comprehensive Pedestrian Plan, as well as the goals and objectives set by the Steering Committee.



**Figure 1-1. Pedestrian Destinations.** *People without access to automobiles - the elderly, handicapped, lower-income populations and youth - are immediate market segments that benefit from pedestrian improvements to connect playgrounds (above), schools, shopping, and social destinations with homes.*

## Section 1. Goals & Objectives

### 1.1 Introduction

The intent of the Dunn Comprehensive Pedestrian Plan is to provide guidance for making the City of Dunn a more pedestrian-friendly community. Partially funded by a grant from NCDOT and matching funds from the City of Dunn, the Pedestrian Plan serves several purposes, including:

- To promote a better understanding of the measures that can be taken to create more and safer walking trips in Dunn;
- To identify in the Plan a clear schedule of projects, programs, and policies that Dunn and partnering agencies can complete to improve the walking environment; and
- During the planning process and afterwards, to create a better awareness of walking as a viable mode of transportation that can serve as a reliable substitute for some trips being made by private auto now; contribute to a healthier lifestyle; and reduce carbon and other emissions associated with motorized travel.

The Pedestrian Plan offers guidance for future pedestrian-related projects and improvements in the City, as well as recommended programs and policies that will improve local walking conditions. The results of the Plan will be a safe, accessible pedestrian system that includes sidewalks, greenways and safe intersections, as well as programs and policies that encourage residents and visitors alike to walk, rather than drive, around town.

The Plan attempts to capture and address the needs of Dunn's varied population, including those of current and future residents, visitors, and tourists. The benefits of the Plan are as varied as the population it serves, including improved air quality, a healthier and more physically active population, reduced traffic congestion, and improved pedestrian safety for children and the elderly. All of these benefits amount to an overall improvement in quality of life which can make a city very attractive to newcomers and visitors, thus boosting the city's economy and vitality.

The following chapters of the Plan provide recommendations for projects, programs, and policies that will help to improve the pedestrian conditions in Dunn and encourage walking. The Plan also provides design guidelines that are

tailored to the specific needs of Dunn. Finally, the Plan presents a list of priorities and a recommended schedule, as well as cost estimates and potential funding sources, to assist with implementation of the Plan’s recommendations.

## 1.2 Plan Process

The Dunn Pedestrian Plan was begun in December 2007 and completed in the fall of 2008. Dunn contracted with a professional consulting firm, The Louis Berger Group, Inc., to help the City prepare the plan, conduct public engagement exercises, and assist with managing a Steering Committee comprised of citizens, businesses, City staff and pedestrian advocates. The City also helped to conduct two public “Open House” meetings and a city-wide survey to gather feedback from residents on the vision for the future of Dunn’s pedestrian environment. In addition to thorough public outreach, the planning process included a field inventory of pedestrian facilities in Dunn, which combined with public feedback, led to the development of two “working papers” reviewed in full by the Steering Committee. A draft of the Plan was presented for public comment at the August Open House and the final Plan was approved by City Council on December 9, 2008.

## 1.3 Vision and Goals

At the project onset, a Steering Committee was created to serve a guiding role for the Plan and represent a wide array of citizen and business interests in Dunn. Members of the Steering Committee included Harnett County staff, Dunn City Staff, citizens and elected leaders. On January 17, 2008 the first meeting of the Dunn Comprehensive Pedestrian Plan was conducted, in part to capture the opinions of the Steering Committee about important guiding principles for the Plan. These principles are captured as a vision statement, a series of goals, and implementation strategies.

The following are the direct comments from the Steering Committee when asked what their goals were for the pedestrians of Dunn:

- It is safe and easy to walk in Dunn, and everyone walks and has an active lifestyle.
- Children can walk to school safely.
- The Plan ties existing facilities to proposed facilities and shows connectivity.
- Dunn has comfortable and pedestrian-friendly walking facilities.

Name	Affiliation / Representation
Steve Neuschafer	Planning Department
Byron Tyndall	Police Department
Chuck Turnage	City Council
Joel Strickland	Rural Transportation Planner
Denise Newkirk	County Health Department
Brandy Hall	Community Marketing Director
Theresa Stephenson	Resident
John Archie	Resident
Granville Tilghman	Resident
Zada McLamb	Resident
Blaine Everhart	Dunn Planning Board
Stan Williams	Dunn Middle School
Vincent Washington	Dunn Public Works Department
Perry Hudson	Parks and Recreation Department
John Vine-Hodge	NCDOT Bike/Ped Division

Table 1-1. Pedestrian Plan Steering Committee

Steering Committee Statement	Goal			
	1. Safe	2. Easy	3. Access	4. Progress
It is safe and easy to walk in Dunn, and everyone walks and has an active lifestyle.	●	●		
Children can walk to school safely.	●		●	
The Plan ties existing facilities to proposed facilities and shows connectivity.		●	●	
Dunn has comfortable and pedestrian-friendly walking facilities.		●		
The Plan addresses beautification and aesthetics, incorporates bike lanes as buffers.		●		
The Plan addresses mobility and transportation alternatives.			●	
There is pedestrian access to all City parks for both adults/kids.			●	
Pedestrian facilities have smooth surfaces that give better access to bikers and skaters, as well.			●	
The Plan addresses trail loop opportunities to connect exiting Dunn-Erwin end points.			●	●
The Plan has long-term design recommendations that encourage more walking through successes and implementation over time.				●
Existing facilities are well-maintained and safety is increased through enforcement.	●		●	
There is improved bike/ped access to commercial areas through trail connections.			●	●
New sidewalks are built where needed with funding through the City's budget.				●
The Plan identifies and builds upon public/private partnerships to make Dunn more pedestrian-friendly.				●
The Plan addresses and improves access on trails for EMS and maintenance vehicles (e.g., better design on knock-down barriers/bollards).			●	
There are more education/encouragement programs and activities to promote walking.		●		
The crossing at US 421 and Wilmington, and all along Wilmington, are improved so that they are no longer barriers for pedestrian access.			●	●
There is better bicycle access and access for wheelchair-bound and disabled populations.			●	

Table 1-2. Pedestrian Plan Steering Committee Comments and How They Relate to the Goal Statements

- The Plan addresses beautification and aesthetics, incorporates bike lanes as buffers.
- The Plan addresses mobility and transportation alternatives.
- There is pedestrian access to all City parks for both adults/kids.
- Pedestrian facilities have smooth surfaces that give better access to bikers and skaters, as well.
- The Plan addresses trail loop opportunities to connect exiting Dunn-Erwin end points.
- The Plan has long-term design recommendations that encourage more walking through successes and implementation over time.
- Existing facilities are well-maintained and safety is increased through enforcement.
- There is improved bike and pedestrian access to commercial areas (e.g., rail-trail connection to Belk's) through trail connections.
- New sidewalks are built where needed with funding through the City's budget.
- The Plan identifies and builds upon public/private partnerships to make Dunn more pedestrian-friendly.
- The Plan addresses and improves access on trails for EMS and maintenance vehicles (e.g., better design on knock-down barriers/bollards).
- There are more education/encouragement programs and activities to promote walking as a transportation mode and/or recreation (e.g., maps, marketing via TV ads or PSAs).
- The crossing at US 421 and Wilmington, and all along Wilmington, are improved so that they are no longer barriers for pedestrian access.
- There is better bicycle access and access for wheelchair-bound and disabled populations.

From these basic statements, the following goals and implementation strategies were created. Each goal is accompanied by an issue statement that further describes the impetus behind that goal, and provides a connection to the implementation strategies.

**Goal #1: It is safe to walk in Dunn.**

*Issue Statement* – Having higher-than-average populations living below the national poverty threshold, Dunn has a large number of residents that

## City of Dunn Pedestrian Plan

### Section 1: Goals & Objectives

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may need to walk for transportation purposes. Dunn may also have many residents who choose to walk, perhaps for recreation or exercise, to many of the City's primary destinations, such as schools, shopping centers and the hospital. Streets and intersections in the City need to be improved so that they are safe for pedestrians no matter what their motivation for walking. To create a safer walking environment in Dunn, both motorists and pedestrians should be educated about proper walking and driving behavior, as well.

#### **Goal #2: It is easy, convenient and pleasant to walk in Dunn.**

*Issue Statement* – This simple Goal conveys many of the complex thoughts of the Steering Committee: connectivity between developed parts of the City; beautiful aesthetics to compliment not only walking and biking, but enhance everyday living for citizens and promote a vibrant, attractive atmosphere for businesses and tourists; and the desire to promote more walking for transportation and recreational purposes. To accomplish this Goal, funding and regulatory practices must pay attention to new facilities, continual improvements should be made in design standards for new developments, and ongoing safety-education and encouragement programs should promote walking in the City.

#### **Goal #3: Popular destinations in Dunn are pedestrian accessible for people of all abilities.**

*Issue Statement* – Dunn has a proud history of individualism, and people want to conduct their daily lives on their own terms, including making trips on foot, in a wheelchair, or in the face of common physical barriers. Dunn's population includes people of differing physical abilities, from youth to seniors to visually/physically disabled residents. To accommodate all Dunn residents and visitors, the pedestrian system must be well-connected and accessible. In making these improvements, the local pedestrian system can be safer and more accessible for everyone.

#### **Goal #4: The City of Dunn makes steady progress to implement its pedestrian recommendations.**

*Issue Statement* – Dunn will not immediately have all the resources it needs to construct new facilities or create and maintain programs, but will have to rely on partnerships with the private sector, developers, education officials, health agencies, the North Carolina Department of Transportation, and others to make better pedestrian transportation a reality. To do so may require the development of ongoing improvement programs, as well as policy changes such as ordinance



modifications that guide growth, and increases in the amount of limited capital dedicated to pedestrian improvements.

From these four broad goals, a succinct vision of the Dunn pedestrian environment was created:

**“The City of Dunn is a safe, easy, and attractive environment for all of its citizens and visitors to traverse on foot, an increasingly popular way of transportation that is created through many partnerships.”**

This is the vision for how the City will be viewed during and after implementation of the Comprehensive Pedestrian Plan, in years to come. The recommendations of the following chapters identify succinct strategies for achieving this vision through engineering, education, enforcement and encouragement projects and programs.

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## Section 2. Existing Conditions

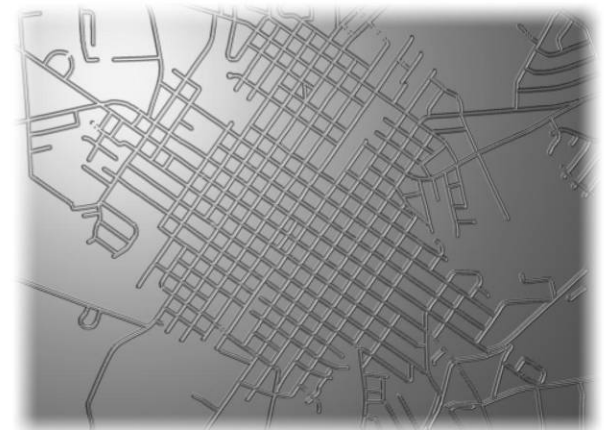
### 2.1 Introduction

The City of Dunn began in the late 1800's as a logging town buried in the pine forests of North Carolina. Incorporated in February of 1887, Dunn, like many small towns in the Piedmont area of North Carolina, received early momentum from a railroad line, which was completed in March of 1892. Broad Street and, later, Cumberland Avenue, became the young town's first streets. Interstate 95 picked up where the declining volume of passenger and freight rail traffic tapered off, providing a convenient connection to Fayetteville and Raleigh. Betsy Johnson Regional Hospital opened in 1968, and has remained a top employer in the City and surrounding region.

Today, Dunn still bears many marks of its early days, with a tight grid pattern and a mix of medium-density land uses defining the core downtown area and preeminent place to walk. However, the rest of the City has not developed in the same way, exhibiting much of the disconnected street systems and homogeneous land uses that have defined the growth patterns of the mid- to late 20<sup>th</sup> century in the U.S. The February 2006 zoning map of the City indicates the low-density ring of two-unit-per-acre housing at the edge of the City, which is bisected by I-95 as well as railroad lines. One of these rail lines has been converted to a five-mile, crushed stone surface trail (the Dunn-Erwin Rail Trail), the popularity of which has been focused primarily on recreation. Three public schools, an active Chamber of Commerce, health-related businesses, and manufacturing, numerous civic clubs like Kiwanis, MLK Committee, Lions, and Rotary, and the Betsy Johnson Regional Medical Center are potential partners in developing programs, educational opportunities, and amenities for pedestrians.

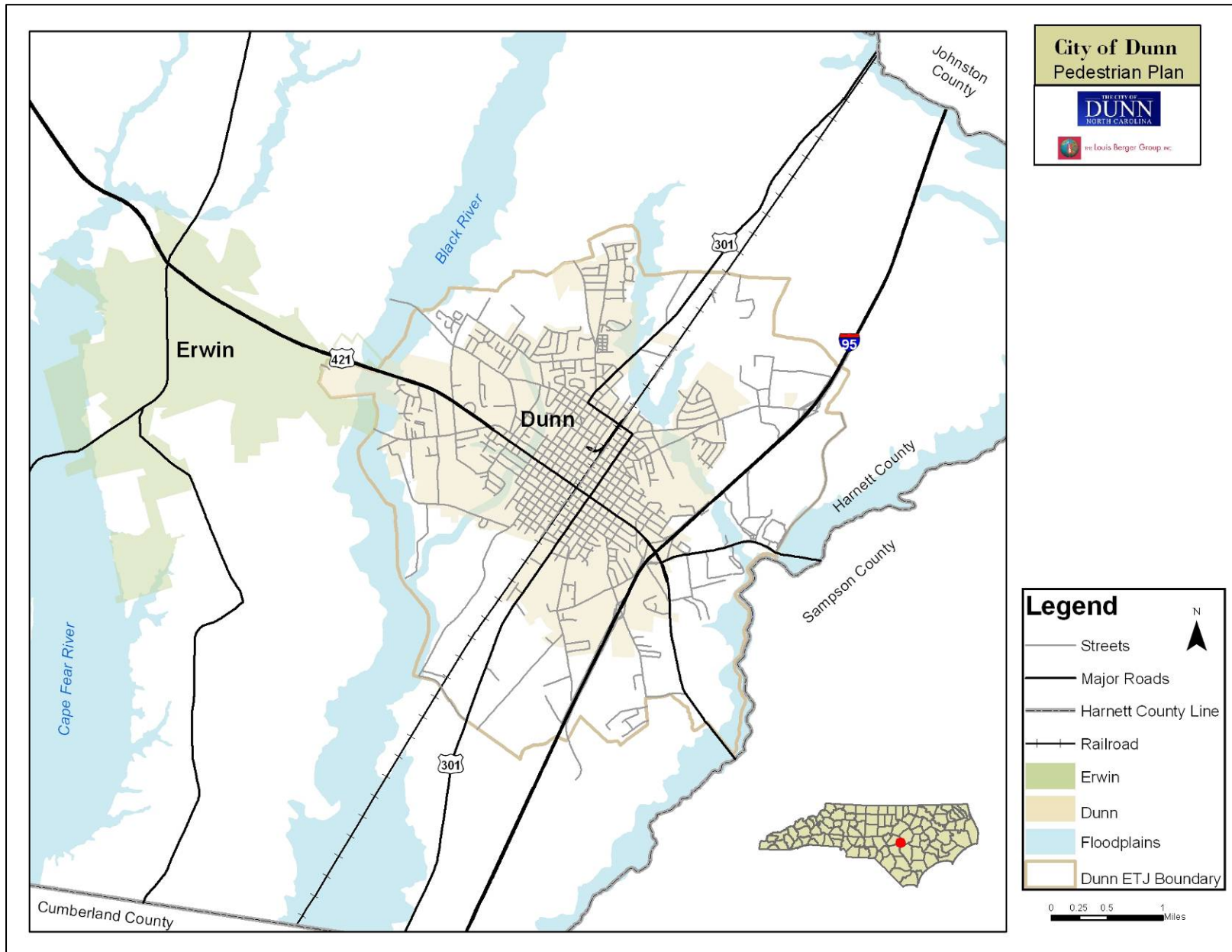
Figure 2-2 on the following page illustrates the position of the City relative to the surrounding region, including nearby Erwin, important local/regional rail lines, and major roadways. I-40, I-95, US 321 and US 421 provide excellent highway accessibility from other areas of the State, and the Seaboard System Railroad continues to connect the area with national access to freight shipping as it has done since the earliest days of the City's formation. The CSX rail line in Dunn accommodates as many as 40 trains per day.

This section describes factors that contribute to current pedestrian transportation mode shares in Dunn, as well as the physical landscape that affects how Dunn looks today to the average pedestrian.



**Figure 2-1. The Grid Pattern of Streets in Dunn**  
*The obvious grid pattern of the central parts of the City, combined with the natural constraints of wetland areas and favorable climate, make the City a good long-term candidate for making walking a viable form of transportation.*

Figure 2-2. Location of Dunn, North Carolina



## 2.2 Demographic Analysis

In order to provide full and adequate services to all the residents of Dunn, the City of Dunn Comprehensive Pedestrian Plan must address all of the needs of the people it serves, residents and visitors alike. To this end, the city's demographic information provides valuable clues about citizen travel behavior and preferences. Characteristics such as age, income, vehicle ownership, and commute time can suggest a population's potential for accepting walking as a mode of transportation. The following paragraphs provide a summary of the demographic analysis for the City of Dunn and explain the implications of the analysis for the recommendations made in the Pedestrian Plan. The complete demographic analysis can be found in Appendix C.

According to the U.S. Census, the estimated 2006 total population for the City of Dunn is 9,972. Based on the 2000 Census results, this overall population is racially balanced between Caucasian and African-Americans, and is also relatively low income with nearly one-quarter of the population below poverty-level. Age-distribution patterns in Dunn reflect an interesting pattern compared to state and national averages. Though there is a similar percentage of youth below 19 years of age in Dunn, the population of age group 20-44 is significantly less than state and national averages, while age groups 55+ are larger than state and national averages. This could indicate that younger workers are moving away to find job opportunities, or that Dunn may not be attracting young workers (age 20-44).

The City's household vehicle availability statistics are congruent with the City's somewhat low income levels and high poverty rate; Dunn has a higher percentage of households with 0 or 1 car available and a lower percentage of households with 2 or more cars available than both the state and nation. Roughly 19 percent of Dunn households do not have access to a vehicle. Despite this, only 7 percent of all workers do not commute by automobile. It is also interesting to note that the City has no bicycle commuters, but 3.7 percent of commuters walk to work, which is significantly higher than the State and national percentages, respectively. The demographic analysis also reveals that Dunn has a higher percentage of work commuters who travel less than 14 minutes to work, as well as those who travel over 35 minutes to work, than both the state and national percentages. However, Dunn has a lower percentage of work commuters who travel between 14 and 34 minutes to work. The data indicates that most Dunn residents (over 58%) live within 14 minutes from work, suggesting

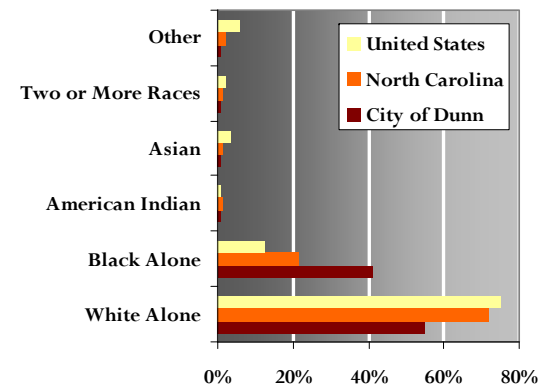
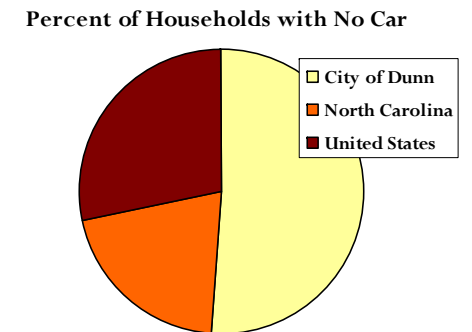


Figure 2-3. Key Demographic Statistics *Dunn is both more racially diverse (above) and more dependent on non-auto travel than North Carolina or the U.S.*





*In some places, walking takes place even where there are no facilities for it. Poorly lit, an isolated feel, no hard surface or adjacent attraction - but walking still takes place on this important trail connection.*



*In other places, lighting may be adequate and a feeling of good security may abound, but a lack of nearby sidewalk connections may inhibit direct pedestrian access.*



*An obvious and easier-to-fix example is shown here. Cracked and "popped-up" sidewalks happen, but too little maintenance over time will contribute to an environment that is unappealing to all pedestrians, and impassable to those with mobility limitations.*



Figure 2-4. Getting There from Here *In order to achieve our Goals, diverse situations like these must be addressed first.*

that many people who work in the City also live within the City, which means that increasing the number of pedestrian commutes can be a realistic goal. There will be more people to enjoy the walking in Dunn, too: the *2030 Land Use Plan* suggests that there will be nearly 17,000 citizens added in the next two decades.

Overall, the results of the demographic analysis suggest that the City's population would be amenable to walking for transportation purposes. Based on the income levels, poverty rate, and household vehicle availability, commuting on foot seems to be a potentially practical option for many workers. Therefore, the Dunn Pedestrian Plan should make recommendations that focus on improving pedestrian facilities to encourage people to travel to work by foot, as well as make recommendations to promote walking for recreational or non-work trip purposes. In addition to the environmental and air quality benefits of increased walking and decreased automobile use, the effects of adopting these pedestrian improvements will also ease vehicle traffic congestion while potentially improving the overall health and wellness of the residents of Dunn.

### 2.3 Existing Facilities Analysis

Part of the answer as to why many people walk in Dunn – and why more people don't walk – can be found in the level of accommodation for pedestrians. It is tempting to limit the observations of pedestrian accommodations to sidewalks or pathways alone, but the way that intersections are designed; the way that the shops, businesses and homes of Dunn are located and developed; and the policy environment in the City, County, and State are all important considerations as well.

Figure 2-5 on page 13 illustrates a number of important destinations for pedestrians in Dunn, as well as an inventory of existing sidewalk facilities, most of which are concentrated in the downtown area. The sidewalk inventory reveals the history of Dunn's development and the impact of the city's development ordinances (discussed in Section 3) on walkability. As in most North Carolina cities, sidewalks were constructed in many of Dunn's historic neighborhoods when automobiles were less prominent in the transportation network, but outside of the downtown area sidewalks are less frequent, reflecting the post 1950's era jump in automobile ownership across America. Interestingly, many of Dunn's older sidewalks are completely overgrown with grass and weeds, being nearly

undetected to passers-by. The Dunn walking environment could be enhanced quickly by making a “clean sweep” of these sidewalks: clearing overlying weeds, grass and debris, then power-washing the surface of the sidewalks (depending on drought conditions). The individual condition and depth of overgrowth would determine if these sidewalks are salvageable, or if new installation is required.

In addition to sidewalk facilities, Figure 2-5 illustrates major destinations in Dunn. The City has a number of parks and schools that should be considered pedestrian generators and given special attention when prioritizing local pedestrian projects. Tart Park and Codrington Park are especially important facilities in Dunn. Though Tart Park is located toward the edge of town and away from the most walkable area in Dunn – the central business district – it is a major destination for pedestrians, especially as a recreational opportunity. The P. K. Vyas Recreation Center (located in Tart Park) serves as a comprehensive activity center for the City, and includes an indoor walking loop that is well used by residents, especially Dunn’s senior citizens. The outdoor walking trail at Tart Park is also widely used for fitness walking, but currently many City residents drive to the facility to use these trails. Codrington Park is located closer to downtown Dunn, but is not well-connected to surrounding neighborhoods or downtown commercial district. Being home to the Dunn Senior Enrichment Center, the City swimming pool and a large playground, Codrington Park is a pedestrian attractor that could be well-served by better sidewalk and/or trail connections. Other Dunn parks, such as Tart and Tyler, should also be connected to nearby neighborhoods, trails, schools and commercial areas.

Important recognition should be made of the Dunn-Erwin Rail-Trail, a greenway trail that runs from downtown Erwin to downtown Dunn. The trail was constructed with state and city funds, and is maintained by the City of Dunn Public Works Department. Access points are provided at multiple cross-streets including the Ashe and Powell Avenue trail parking area. The trail provides a major throughway for bicyclists and pedestrians to safely traverse the western half of Dunn, and should be considered a major pedestrian attractor. Not only is the trail a tourism opportunity for visitors and recreational opportunity for residents, it also provides a valuable transportation route for pedestrians to/from downtown Dunn. Planned and potential connections to this trail from local parks and neighborhoods will be considered in the Comprehensive Pedestrian Plan, especially the potential link to Codrington Park through city-owned property northeast of downtown. Other connections to and extensions of the trail could increase its use and utility, and should be prioritized; enhancements such as

trailheads, lighting, wayfinding signage, kiosk maps and park furniture (e.g. benches, water fountains and trash cans) could also be considered.

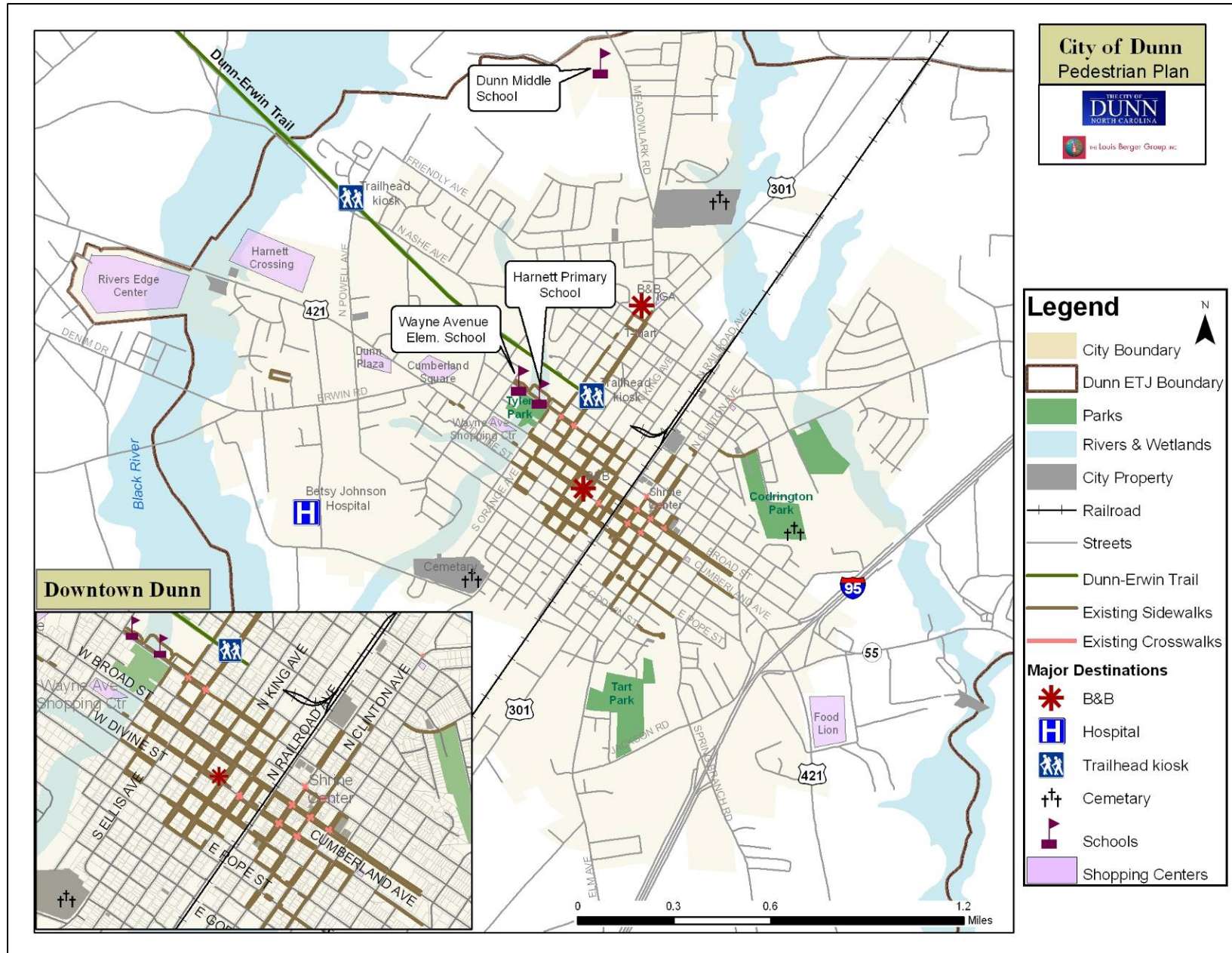
In addition to parks and trails, local schools are major pedestrian generators and top priority should be given to creating connections between Dunn's residential areas and schools. Wayne Avenue Elementary and Harnett Primary School are on the same land and are fairly well-served by sidewalks and the Dunn-Erwin trail (which runs alongside the back of the school property); however traffic calming and intersection improvements could be made in the school area to improve pedestrian safety and create "safe routes to school." The local middle school is located on the edge of town and is not at all served by pedestrian facilities, though many students do walk in the shoulder along Meadowlark Road. Safety is a serious concern for students who walk to and from the middle school, and could be improved drastically with the provision of a sidewalk along Meadowlark Rd.

Finally, connections to major employment destinations and retail areas should be considered further in creating a complete pedestrian network for Dunn. The Betsy Johnson Hospital is Dunn's largest employer, and local shopping centers (especially those along Cumberland Street) also employ and attract significant numbers of Dunn residents. Finally, local organizations like the Downtown Development Corporation (DDC) are focused on revitalizing downtown Dunn. The DDC is developing a plan for a streetscaping project anticipated to begin in late 2010. This planned streetscaping project and similar initiatives funded by the Municipal Tax District downtown should include pedestrian improvements to enhance the walking environment of the City's central business district.



City of Dunn Pedestrian Plan  
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Figure 2-5. Pedestrian Destinations and Facilities Map



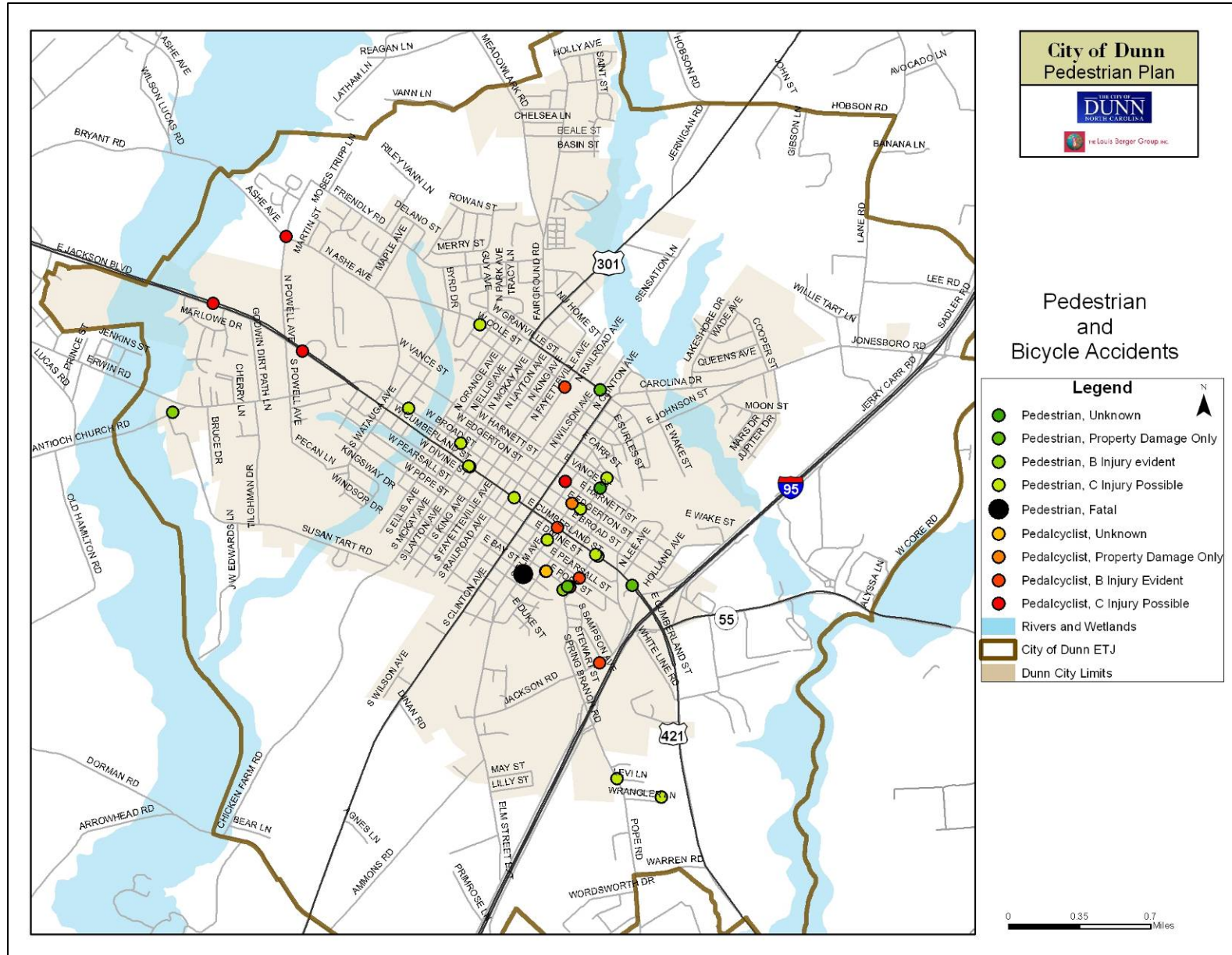
## 2.4 Pedestrian Crash Analysis

A pedestrian crash analysis is useful because it can be an indicator of the pedestrian-friendliness of a community, and can also provide information on key locations or educational outreach areas where improvements could be made to enhance safety. A crash analysis can often indicate popular walking routes, and sometimes illustrate conflict areas between pedestrians and cyclists. Crash data for Dunn was available from the North Carolina Department of Transportation (NCDOT) for 2003 - 2007. Overall, this data reinforces the comments of the Steering Committee members and City staff regarding pedestrian “hot spots” throughout Dunn, particularly at intersections and in the near-east downtown neighborhoods. The Cumberland Avenue corridor has quite a high concentration of incidents over the total time period between 2003 and 2007, particularly at intersections near popular shopping destinations, such as that of Cumberland Avenue and Elm Street or Cumberland Avenue and Commerce Drive. Many of these crashes were severe with evident and/or disabling injury incurred by the pedestrian, with one pedestrian fatality at the Elm Street and Bay Street intersection. The number of pedestrian crashes occurring at local intersections could indicate that one of Dunn’s strongest needs is to make safety improvements such as pedestrian signalization, crosswalk improvements, traffic calming and signage. These crash types also reinforce the notion that educational outreach could be used to encourage pedestrians to obey traffic signs and signals and use caution when crossing busy streets.

Figure 2-6 provides a summary of crashes in Dunn from 2003 to 2007.

## City of Dunn Pedestrian Plan Section 2: Existing Conditions

Figure 2-6. Pedestrian Crash History in Dunn, 2003-2007





## 2.5 Community Concerns and Needs

Public input has played a critical role in the City of Dunn Pedestrian Plan, helping to guide the development of a project list, identify program and policy recommendations, and assist with prioritization (see Sections 5 and 6). The process to gather public input has included multiple elements, incorporated into the Pedestrian Plan throughout the planning process. A Steering Committee was created at the beginning of the process to serve a guiding role for the Plan, and met regularly to discuss and review the plan and related documents. Simultaneous public outreach activities included a regularly-updated project website, a “warm line”, a city-wide survey and two Open Houses - one on April 29, 2008 and one on August 21, 2008. At the two Open Houses, participants were provided an opportunity to speak directly with City staff and their consultants about the Plan. Maps were available for participants to indicate the locations of pedestrian-related issues and desired improvements, and flyers and surveys were available for distribution. In total, there were approximately 15 participants at the April 29, 2008 Open House and 15 participants at the August 21, 2008 Open House. Copies of the Open House flyers, survey and other public outreach materials are available in Appendix A.

All of the comments and feedback received during public outreach activities of the Plan were used to develop the project, program and policy recommendations outlined in Sections 5 and 6 of the Plan.

### 2.5.1 Steering Committee Feedback

At the first two Steering Committee meetings on January 17 and March 27, 2008, stakeholders were given the opportunity to provide input on walking conditions in Dunn. Specifically, Steering Committee members identified areas where they would like to see sidewalk improvements, greenway connections and crossing upgrades. Committee members highlighted major “hot spots” or problem areas for pedestrians, the top two of which were the IGA grocery store on Cumberland Avenue and Dunn Middle School on Meadowlark Road. Committee members also strongly suggested a “downtown trail” connection to/from the Dunn-Erwin Trail and downtown Dunn, by way of a signed walking route and complementary map. In addition to specific project ideas, Steering Committee members identified some general “priority” areas for pedestrian improvements, including schools, parks, major employment centers (e.g. the hospital) and the Dunn-Erwin trail. Other needs/concerns highlighted by the Steering Committee included:

## City of Dunn Pedestrian Plan

### Section 2: Existing Conditions

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- Wide pedestrian crossing distances at major intersections;
- Wide roadways in need of road diets or traffic calming to reduce traffic speed and improve the pedestrian environment;
- Pedestrians walking in the roadway in certain areas of the City. Pedestrian safety concerns could be addressed with better sidewalk connections, and safety-education and enforcement should be part of the solution;
- Current policy language, which does not require sidewalk construction, even as many residents want to travel by foot within and between residential developments;
- General lack of sidewalks in areas with heavy foot traffic, especially in low-income areas where many residents are walking for transportation even without adequate pedestrian facilities;
- General lack of pedestrian, or “walk,” signals at intersections throughout Dunn.

All of these concerns and/or project ideas were taken into consideration and helped to formulate the recommendations of Sections 5 and 6 of the Plan. Many of the recommended crossing improvements, greenway trails and/or sidewalk installations suggested by the committee are listed as specific project recommendations in Section 5 of the Plan. Recommendations to develop more pedestrian-friendly policies and programs are included in Section 6. Section 4 of the Plan covers facility design options for standard projects, such as sidewalk or crosswalk installation, as well options for more complex traffic calming or road diet treatments. Many roadways in Dunn identified as in need of pedestrian improvements may have right-of-way constraints or other challenges which will make retrofits difficult and/or expensive to construct. For instance, right-of-way limitations exist along Cumberland Avenue, Friendly Road, Erwin Road and Granville Street. In such cases, a road diet (reducing the number or width of existing travel lanes to make room for other accommodations) may be considered to most cost-effectively create “complete streets” for Dunn.

#### 2.5.2 Survey Results

The Pedestrian Plan survey was distributed in hardcopy format by Steering Committee members and City staff to local neighborhood groups, the Middle School PTA, shoppers at both Dunn IGA grocery stores, and at City Hall. The



**Figure 2-7.** Wide crossing distances at intersections, such as on Cumberland Street at River’s Edge Center (above), were a top concern of Steering Committee members and other stakeholders. The use of crosswalks, median refuge islands and pedestrian signals at intersections with a designated “walk” phase could all help improve pedestrian access and safety along major thoroughfares throughout the City. Section 4 of the Pedestrian Plan recommends design standards for common intersection treatments.

survey was also available at the April 29, 2008 and August 21, 2008 Open Houses, as well as online from April 1 – August 21, 2008 via the project website at <http://dunnpedplan.pbwiki.com>. The survey had 76 total responses. Full results of the Pedestrian Plan survey can be found in Appendix B of the Plan.

The majority of survey participants indicated that they currently walk for recreation (65%) or to walk the dog (43%) over transportation (18%). However, survey responses strongly indicate that a lack of sidewalks in Dunn contributes to the decision not to walk more, in addition to fear of traffic and concerns over distance or time. Based on survey responses, many Dunn residents are currently walking to visit family and friends living nearby (57% of survey respondents), with walking trips to local parks and recreation centers ranking second in favorite pedestrian destinations. Many survey respondents indicated that they would like to walk more for leisurely activities, such as to visit friends, local parks, the library, church and entertainment venues.

When asked about the level of comfort or security residents feel about walking in Dunn, most indicated that they felt most comfortable in their own neighborhoods (85%). Seventy percent (70%) of respondents feel comfortable walking downtown and in the areas around their workplace, while local intersections were rated as the least comfortable pedestrian environment. In addition to information on these valuable indicators, survey respondents also recommended sidewalk and greenway projects, as well as intersection improvements, which have been incorporated into the project recommendation section of the Plan. The majority of survey respondents (82%) expressed a strong desire for funds to be directed toward sidewalk projects along existing roads rather than toward greenways along natural areas (see Appendix B). This response indicates the perceived public need and desire for more sidewalk connectivity throughout the City.

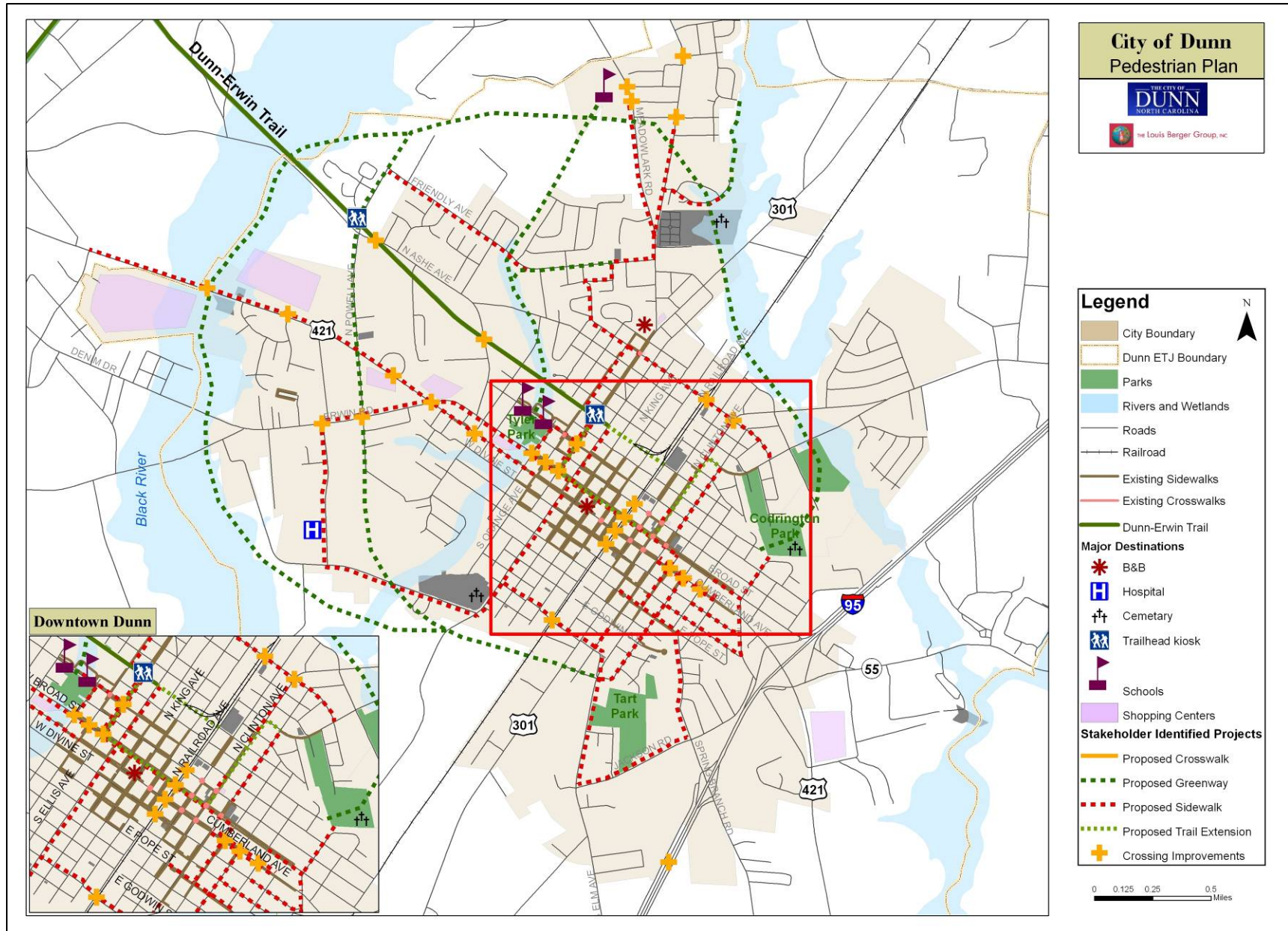
### **2.5.3 Open House and Other Feedback**

In addition to regular Steering Committee meetings and public outreach through the website and survey mechanism, an initial Open House was held on April 29, 2008. The first Open House was a casual forum, where participants could fill out a survey, speak with City staff and planning consultants, and participate in a mapping exercise to identify projects for the Pedestrian Plan. Since it was an intimate group of 14 (not including the hosts), the participants divided up into two

groups per table and worked on project and program ideas. Suggestions that arose during the April Open House were based on the unique perspectives, interests and needs of Dunn's citizens, public sector staff, business leaders, advocates and elected officials. A second Open House on August 21, 2008 resulted in additional feedback used to help refine project, program and policy recommendations.

Figure 2-8 illustrates sidewalk needs, greenway connections and crossing improvements identified by the Steering Committee and other stakeholders (e.g. survey respondents and participants of the Open House). These initial ideas were filtered into the project recommendations outlined in Section 5 of the Plan.

Figure 2-8. Pedestrian Needs Initially Identified by the Stakeholders (May 2008)





## Resources and Citations

1. National Civic League, All-America City Award. ([www.ncl.org](http://www.ncl.org)) accessed March, 2008.
2. N.C. Division of Community Assistance, *City of Dunn 2030 Land Use Plan*, June, 2005, 91 pages.
3. U.S. Bureau of the Census, 2000 Decennial Census and Census Estimates, accessed January, 2008.

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## Section 3. Plan & Policy Review

The decisions that shape the quality of pedestrians' experience are made every day, every time a new shopping center is built, an intersection is widened, a street paved. In turn, the City of Dunn makes decisions about how streets are designed, the way that new private developments are constructed, the priorities given to various kinds of improvements. The decisions enacted by these plans, programs, and policies are just as important as physical infrastructure in creating a pedestrian-friendly community because they create and encourage an atmosphere of acceptance towards pedestrians and a perspective of walkability.

The following section includes an assessment of the various policies, plans and regulations that directly or indirectly affect walking in Dunn:

- Code of Ordinances;
- Zoning Ordinance;
- Landscape Ordinance;
- City of Dunn 2030 Land Use Plan; and
- Dunn-Erwin Long Range Transportation Plan.

It is important to recognize here that the North Carolina Department of Transportation (NCDOT) plays a preeminent role in the financing, operation, and design of the streets and other transportation elements in our State. However, NCDOT has become more amenable in recent years to looking at non-traditional street design standards; integrating context sensitive design and land use objectives into their practices; managing roadway access; planning for and funding pedestrian improvements; and actively seeking out new partnerships to help improve secondary road systems across the State.

Detailed recommendations for updates to these policies and plans, as well as for new policies, ordinances or plans are included in *Section 6: Program & Policy Recommendations*.

### 3.1 Dunn Policies and Ordinances

#### Code of Ordinances

The City of Dunn maintains its ordinances on the Municode website ([www.municode.com](http://www.municode.com)). A city adopts and modifies its ordinances under the

This section reviews current planning documents and policies in Dunn that shape the day-to-day experiences of those who walk for recreation and transportation.



Figure 3-1. Pedestrians Welcome A busy street with parked cars and ample sidewalk width, and some visual interest "under glass" at eye-level contribute to the pleasant walking environment of this downtown sidewalk - as does the simple addition of a decorative planter.

regulatory powers granted by the State of North Carolina to guide development, identify the appropriate uses for land in the municipal boundary and extra-territorial jurisdiction (ETJ), and provide guidance on appropriate actions for its citizens to protect their health and well-being. Important considerations for pedestrians in the Dunn Code of Ordinances include the following:

- The City of Dunn may choose to order private development to include street improvements as well as sidewalk improvements;
- The City can also construct sidewalks, without petition, and assess the total costs to abutting property owners;
- Vehicles cannot be parked on a sidewalk (Sec. 12-95);
- No one is allowed to play games or skate on a sidewalk (Sec. 19-7) or spit on a sidewalk (Sec. 19-8);
- Bicycles are not allowed on City of Dunn sidewalks, as they are held to the same accountability as motor vehicles (Sec. 12-3) although this is not stated explicitly in the ordinances;
- The minimum construction standard for sidewalks is four feet in width (Sec. 20-73 (r)), which is less than the typical five-foot width;
- Overhead passageways are required where construction may injure a pedestrian below (Sec. 19-42) but there are not provisions for pedestrians where sidewalks are obstructed by construction activities;
- Maximum cul-de-sac length is 800 feet (Sec. 20-73(o));
- Sidewalks are only required on streets where the Planning Board deems them to be necessary (Sec. 20-73(t)), which could be strengthened to include sidewalks on all constructed/widened streets on at least one side of the street;
- Greenways are not required to connect to exterior pedestrian paths, nor is a dedication of right-of-way required by a developer, although a small incentive reducing the amount open space required by half is allowed (Sec. 22-59.8); and
- Vehicles are not allowed into an intersection to block the movement of pedestrians (Sec. 12-34).

### **The Zoning Ordinance**

A special section of the Code of Ordinances is the Zoning Ordinance (Chapter 22), which divides Dunn into 13 separate zoning categories. The zoning of a parcel of land controls its range of allowed “by right” uses, permitted variances under certain conditions, and design specifics, especially parking requirements.

The purpose of this review is not to be wholly critical of the Zoning Ordinance, but to indicate areas where improvements could be realized that would affect the ongoing quality of the pedestrian environment for a long time to come.

The Dunn Zoning Ordinance does not require a specific location for parking in relationship to commercial buildings, for example, which might encourage more parking to the rear of structures and present a more pleasing “face” to pedestrians walking by (and get the door a little closer to the sidewalk). The range of conditional uses (land uses that might be allowed under certain circumstances) is tightly proscribed, as it is in most towns in North Carolina. By separating these different uses, property owners are more reassured that the value of their properties will not decline, but the lack of proximity between compatible land uses (e.g., neighborhood shopping and the neighborhoods they serve) combined with no provisions ensuring pedestrian connectivity, rear accessibility, lighting, etc. can create a sterile pedestrian environment that requires a lot of effort to traverse. An option that municipalities have begun to explore is to protect the value of properties by ensuring appropriate design standards regarding visual, material, and mass elements of the built landscape. For example, a small convenience store can be designed to fit in comfortably with nearby homes, provided the parking, exterior lighting, and construction materials are well-designed and context sensitive.

### Revised Landscaping Ordinance

Section 22-59 of the Code of Ordinances is a fairly recent addition, and provides requirements for landscaping for new developments. Some language in the Landscaping Ordinance that may affect the pedestrian environment is as follows:

- Section 22-59.2(d) indicates that pedestrian walkways will intrude minimally into the buffer yard (the landscaped area between two properties);
- The Landscaping Ordinance helps to preserve shade trees (Sec. 22-59.3) that markedly improve the pedestrian experience;
- Trash containment screening is also required (Sec. 22-59.10 (b)) that improves the quality of visual aesthetics for pedestrians; and
- Berms and walls or fences are allowed in buffer areas, which may prohibit or discourage some pedestrian movements or contribute to a “blankness” of scenery in the pedestrian environment.



Figure 3-2. Images of the *Dunn 2030 Land Use Plan*. Clockwise, from top-left: *Dunn Land Uses*; the north area land use inventory; tree-lined residential street; new, hard-to-access shopping center; wide neighborhood streets like this promote fast vehicle travel and discourage walking; and vacant retail uses posted on the frontier of a “sea” of lightly-used parking creates poor pedestrian elements and unnecessary stormwater runoff issues as well.



### 3.2 Dunn Plans and Reports

#### City of Dunn 2030 Land Use Plan (June, 2005)

After reviewing the demographics, housing, and employment characteristics of the City, the 2030 Land Use Plan illustrates the City as being bisected twice by US 421 and the railroad. While the Plan states that this is only for the purpose of managing the photographic inventory done as part of the planning process, the reality is that these two facilities do indicate dividing lines, at least perceptually, to the citizens – and pedestrians – of Dunn.

The Plan also notes that nearly 60% of the land area – over 5,000 acres – is classified as rural/agricultural, indicating that the City still has a lot of potential for more intensive growth patterns, and more opportunities to practice connectivity. Multi-family land use is less than 2% of the total area, but is typically disproportionately important in terms of providing good walking access since multi-family is sometimes used as a “buffer” between more intensive land uses that are good walking destinations, for example shopping and commercial areas.

The Plan also has the following to say about the 5.3-mile-long Dunn-Erwin Rail-Trail, which is shown verbatim as it indicates recognition of walking and biking as a potential economic stimulus for the City:

*The 5.3-mile DUNN ERWIN RAIL TRAIL is a major recreational asset to the community as well as an economic development tool that can potentially bring in tourist dollars from bicycle and hiking enthusiasts alike. The trail follows an abandoned rail corridor from Downtown Dunn to Downtown Erwin. The two downtowns should work together to see how they might market their areas and the trail. For example, similar business can locate on each end of the trail that rent bikes. The bikes could be dropped off and picked up at either location.*

Also, the Plan recommends adding more parkland, citing the National Recreation and Parks Association (1990) rule of thumb that roughly six to ten acres of park should be in place for every 1,000 residents. Unfortunately, the Plan does not specifically call out a certain (linear) amount of trail or sidewalk density for the City, only citing that a regional trail system is “Not Applicable” to the case of Dunn (page 44).

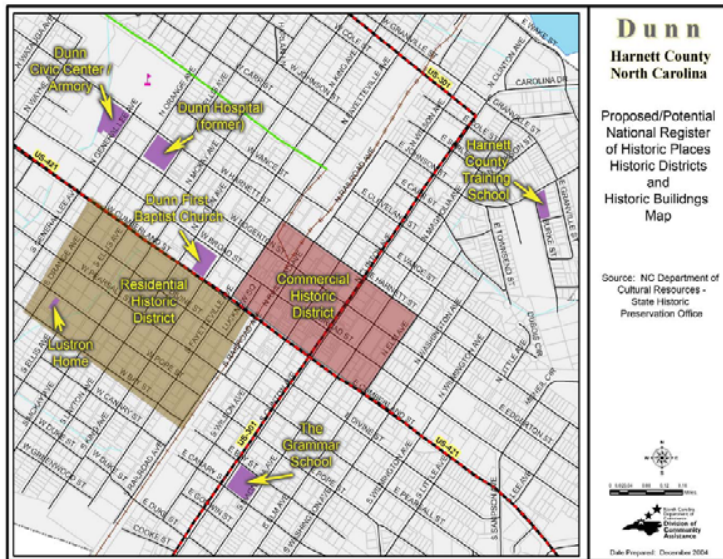
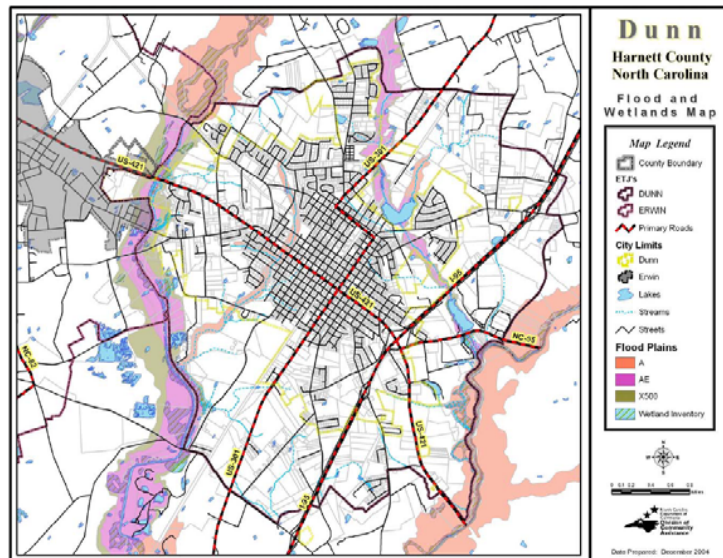


Figure 3-3. Location of Proposed Commercial and Residential Historic Districts (top) and Wetlands Map (below).  
source: Division of Community Assistance, *Dunn 2030 Land Use Plan, 2005*.





- By 2030, the City should develop 106 to 177 acres of area parkland. A thorough parks and recreation plan should be completed to determine locations and the types of activities that will occur. In addition a bicycle and pedestrian plan should be completed that incorporates new trails with the existing trails. An opportunity exists to create a joint recreation center at the old industrial site near the new hospital. The site could be developed as a regional Health-Plex or YMCA serving both Dunn and Erwin. Finally the overall parks plan should be considered when developing “conservation subdivisions” to allow for community parks, open space, and trails.

Also of interest is the call for “Node Development” to promote clustering of land uses, smoother/safer vehicular traffic flows, and the promotion of walking to destinations (page 80). The Medical Mixed-Use and Downtown Nodes are particularly emphasized as having the potential for pedestrian connectivity. The latter includes a recommendation for a downtown revitalization plan (page 89).

#### **Dunn-Erwin Long Range Transportation Plan**

The Long Range Transportation Plan (LRTP) is a joint venture between the City of Dunn, Town of Erwin and the North Carolina Department of Transportation. The LRTP was adopted by the City of Dunn in 1999 and includes a number of proposed roadway changes, as well as new road alignments. New roadway projects proposed in the LRTP that fall within Dunn city limits include the following:

- US 421 Bypass (from Hwy 55 to Samson County)
- US 301 Grade Separation and Relocation (from Wake Street at Clinton Road to US 301 south of Candy Kitchen Road)
- Ellis Avenue Extension (from Pearsall Street to Chicken Farm Road)
- Little Avenue Extension (from Cumberland Street at Little Avenue to Clayton Street and East Granville Street)
- Masonic Road Extension (from Erwin-Denim Road at Masonic Road to Old Post Road)
- McKay Avenue Extension (from McKay Avenue to Ellis Avenue)
- Northern Erwin Connector
- Powell Avenue Extension (from Ashe Avenue at Powell Avenue to Meadowlark Road north of Ann Street)
- Jackson Road Extension (from Jackson Road at South Elm Street to Susan Tart Road west of Chicken Farm Road)



- Tilghman Drive Extension (from Erwin-Denim Road at Tilghman Drive to Powell Avenue north of US421)
- Watauga Avenue Extension (from Kingsway Drive to Tilghman Drive north of Susan Tart Road)
- West Granville Street Extension (from Morris Circle at Granville Street to Cole Street at Watauga Avenue)

It is recommended that all of these proposed new roadway and road widening projects not designated as limited access freeways should include sidewalks no less than five feet wide along both sides of the roadway. A minimum 3ft planting strip or buffer should be included between the back of curb and sidewalk, in order for sidewalks to safely and comfortably accommodate two-way pedestrian traffic. If a planting strip is undesirable due to maintenance reasons, an additional 3ft of concrete sidewalk could be used as a buffer. Additionally, all roadway crossings should include appropriate pedestrian crossing features, such as countdown pedestrian signals and marked crosswalks. Pedestrians should be considered during intersection design such that medians include a pedestrian refuge island and all turning radii are tight enough as to not create unsafe wide crossing distances for pedestrians at intersections.

Proposed road widening projects include the following roads. Each of these widening projects should adhere to the recommendations above for minimum 5ft sidewalks with a 3ft buffer and include safe pedestrian crossing features including countdown pedestrian signals and marked crosswalks at a minimum.

- Widening US 421 east of Dunn to the eastern city limits (proposed 4-lane divided cross-section);
- Widening US 301 from Fairground Road to the proposed US 421 Bypass (proposed 5-lane cross-section with paved shoulders, with some 4-lane divided);
- Widening of Erwin Road from Tilghman Drive to Masonic Road (proposed 4-lane curb and gutter cross-section with raised median)

Proposed intersection improvements include closure of several I-95 interchanges. Additionally, the LRTP includes a proposal to convert Broad Street and Cumberland Street, as well as Ellis Avenue and McKay Avenue, into respective one-way pairs. It is recommended that the City work with the Mid-Carolina Council of Government (RPO) and NCDOT staff to re-evaluate these original proposals. Existing I-95 interchanges should be improved for pedestrian safety,

but closure of multiple interchanges may result in heavier traffic on Cumberland Avenue and Broad Street – two heavily trafficked pedestrian thoroughfares. Additionally, respective planning agencies might reconsider the proposed one-way pair cross-sections, as many cities and towns across the state and country are now converting previous one-way pairs back to two-way streets for safety reasons. Often, one-way pairs can lead to increased traffic speeds which result in an uncomfortable if not unsafe pedestrian environment. Any changes or improvements to these roadways should include continuous sidewalk facilities as part of the project scope, as well as appropriate intersection treatments as discussed above.

Any new bridges or bridge replacements included in the proposed projects above should include pedestrian access via sidewalks on both sides of the road. All bridges should be designed with pedestrian safe railings with a minimum height of 42 feet. Any tunnels or stream culverts under I-95 should also include an adjacent pedestrian facility, in order to mitigate the barrier effect of the interstate through the community. Finally, a designated pedestrian tunnel should be provided at the location proposed in *Section 5: Project Recommendations* to allow for continued pedestrian access between these two growing residential areas.

### **3.3 NCDOT Policies and Program**

#### **2009-2015 Transportation Improvement Program (TIP)**

The NC Transportation Improvement Program (TIP) is a seven-year plan for funding and constructing major transportation projects on State roadways. The TIP covers projects in each of the 14 Division offices across the State. Dunn falls within Division 6, and works with the region’s Rural Planning Organization (RPO), the Mid-Carolina Council of Governments, to submit projects for inclusion in the TIP based on local and regional priorities.

The 2009-2015 TIP for the City of Dunn includes the projects listed in Table 3-1.

**City of Dunn Pedestrian Plan**  
Section 3: Plan & Policy Review

TIP #	Project Name	Project Description	Project Status
I-5010	Interstate 95	Reconfigure interchange ramp at NC-55	Right of Way in Progress and Construction in FY 2009
I-4745	Interstate 95	Rehabilitate pavement and structures, widen and upgrade interchanges and add additional lanes from north of Fayetteville to north of Benson	Right of Way and Construction in FY 2013, FY 2014, FY 2015 and Unfunded
R-4736	Interstate 95	Realign I-95 northbound off ramp and service road	Under Construction

Table 3-1. 2007-2015 TIP Projects within the City of Dunn

### North Carolina Department of Transportation Policies

The North Carolina Department of Transportation (NCDOT) has adopted a number of policies addressing routine accommodation for bicycles and pedestrians on state maintained roadways. These policies and guidelines should be applied when new construction or resurfacing projects impact the bicycling environment in Wilson and include the following:

- **Board of Transportation Resolution on Mainstreaming Non-motorized Transportation** – This policy reaffirms the importance of bicycle and pedestrian facilities as an integral part of the overall statewide transportation system, and states that “bicycling and walking accommodations shall be a routine part of the North Carolina Department of Transportation’s planning, design, construction, and operations activities.”  
([http://www.ncdot.org/transit/bicycle/laws/laws\\_resolution.html](http://www.ncdot.org/transit/bicycle/laws/laws_resolution.html))
- **NCDOT Pedestrian Policy** – This policy offers guidance providing pedestrian accommodations on state maintained roadways, and details standards for planning, design, construction, maintenance, and operations pertaining to pedestrian facilities and accommodations.  
([http://ncdot.org/transit/bicycle/laws/laws\\_pedpolicy.html](http://ncdot.org/transit/bicycle/laws/laws_pedpolicy.html))

- **NCDOT Guidelines for Accommodating Greenways with Road Improvement Projects** – This policy addresses the intent of NCDOT to accommodate planned greenways, existing greenways, and greenway crossings in all highway planning and construction projects. The policy states that it “was incorporated so that critical corridors which have been adopted by localities for future greenways will not be severed by highway construction.”  
([http://www.ncdot.org/transit/bicycle/laws/laws\\_greenway\\_admin.html](http://www.ncdot.org/transit/bicycle/laws/laws_greenway_admin.html))

### 3.4 Federal Highway Administration (FHWA) Policy

Since the 1990's, significant changes have been made to Federal transportation policy and programs to improve bicycle and pedestrian safety and access. The 1991 Intermodal Surface Transportation Efficiency Act (ISTEA) and the 1998 Transportation Equity Act for the 21st Century (TEA-21) were the basis for these changes. Each of these federal transportation bills extended the consideration of non-motorized users in all roadway projects, and TEA-21 mandated an FHWA policy for mainstreaming non-motorized transportation (<http://www.fhwa.dot.gov/environment/bikeped/bp-guid.htm>).

The most recent version of the federal transportation bill, SAFETEA-LU, “confirms and continues the principle that the safe accommodation of non-motorized users shall be considered during the planning, development, and construction of all Federal-aid transportation projects and programs. To varying extents, bicyclists and pedestrians will be present on all highways and transportation facilities where they are permitted and it is clearly the intent of SAFETEA-LU that all new and improved transportation facilities be planned, designed, and constructed with this fact in mind.”

“While these sections stop short of requiring specific bicycle and pedestrian accommodation in every transportation project, Congress clearly intends for bicyclists and pedestrians to have safe, convenient access to the transportation system and sees every transportation improvement as an opportunity to enhance the safety and convenience of the two modes. ‘Due consideration’ of bicycle and pedestrian needs should include, at a minimum, a presumption that bicyclists and pedestrians will be accommodated in the design of new and improved transportation facilities. In the planning, design, and operation of transportation facilities, bicyclists and pedestrians should be included as a matter of routine, and

the decision to not accommodate them should be the exception rather than the rule. There must be exceptional circumstances for denying bicycle and pedestrian access either by prohibition or by designing highways that are incompatible with safe, convenient walking and bicycling.”



## Resources and Citations

1. City of Dunn Code of Ordinances, Municode ([www.municode.com](http://www.municode.com)), accessed March, 2008.
2. City of Dunn website ([www.dunn-nc.org](http://www.dunn-nc.org)), accessed March, 2008.
3. Lancaster, R.A. (Ed.). *Recreation, Park, and Open Space Standards and Guidelines*. Ashburn, VA: National Recreation and Park Association. 1990.
4. Dunn Area Chamber of Commerce ([www.dunchamber.com](http://www.dunchamber.com)), accessed March, 2008.
5. Dunn Area Tourism Authority ([www.visitdunn.com](http://www.visitdunn.com)), accessed March, 2008.