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Introduction

North Carolina Highway 53 (NC 53) is a signature east-west corridor within the Town of Burgaw, which serves a dual role as 1) a state highway satisfying the needs of regional mobility and 2) a gateway connection to downtown for visitors from points north and south via Interstate 40 and US 117. Town officials recognize the importance of this corridor in reinforcing the small town feel and historic character of Burgaw, and have partnered with the North Carolina Department of Transportation (NCDOT) to underwrite a planning process leading to a new vision for NC 53 — safer, more efficient, and aesthetically pleasing.

The NC 53 Corridor Study represents a culmination of citizen-based initiatives to reinvent the corridor as an asset to the community. A three-day public design charrette held within the community brought together residents, business owners, town officials, and representatives for the NCDOT for a collaborative planning process that represented a consensus for implementing the recommendations presented in this report. Many of these recommendations build on initial ideas formulated in a previous visioning document for the corridor which presented to Town Council in 2005 by a local downtown business owner.

One of the guiding principles for this study is that the heavy volume of tractor trailers must be reduced before most of the streetscape improvements proposed in the corridor can be implemented. The high volume of truck traffic can be limited by identifying an existing alternative truck route or a bypass of the community. Implementation of recommendations summarized in this report should be carried forth by “champions for change” within the community. In collaboration with state and local officials, their collective efforts will lead to a safe, efficient, aesthetically pleasing gateway through the heart of Burgaw — one worthy of a community postcard.

Background and History

The Town of Burgaw got its beginnings as a depot for the Wilmington and Weldon Railroad. The depot, which is thought to be the oldest remaining train depot in the State of North Carolina, serves today as a proud reminder of Burgaw’s heritage. Downtown Burgaw is a blend of past and present, with the historic Pender County Courthouse anchoring its center. Burgaw serves as a county hub, a throughway for traffic, and a small-town alternative to the hustle and bustle of life in Wilmington.

The following summary of Burgaw’s early history is an excerpt from the 1998 National Register of Historic Places Application completed to establish the Town’s locally adopted historic overlay district.

Incorporated in 1879, the town’s origins are closely associated with the growth of the railroads in southeastern North Carolina. Known originally as the Burgaw Depot, the Wilmington and Weldon Railroad offered to donate land for the town if newly formed Pender County would build a courthouse there. A civil engineer employed by the railroad divided the town into blocks and lots providing for streets, railroad facilities, churches, schools, cemeteries, and a centrally located courthouse. In recognition of the generous donation by the railroad, the town’s streets were named after railroad officials.

As the post-Civil War economy of Pender County witnessed the division of former large plantations into smaller farms, the railroad offered expanding markets for the farmers’ produce. Burgaw experienced growth as a center of transportation and commerce, as well as the county seat. Freed black citizens worked cooperatively with the white population in promoting educational opportunities, building religious edifices, and establishing social institutions. In addition to a small business district with good examples of brick commercial architecture of the first third of the twentieth century, the town retains a diverse mix of modest and sophisticated domestic architecture representative of North Carolina during the period. The relatively intact character of Burgaw’s commercial buildings, its well-kept and attractive residential neighborhoods, along with the picturesque courthouse square and the handsome 1934 Pender County Courthouse, combine to make Burgaw one of the state’s best-preserved railroad-era towns.

1 From the “National Register Nomination For Burgaw Historic District”, conducted by retrospective, Betsy Keane, November 1998
A portion of downtown Burgaw was granted status as a National Register historic district in 1999. Other nationally designated historic landmarks in Burgaw include the Burgaw Depot and the Pender County Courthouse.

Today, Burgaw has grown from its railroad depot roots to become a regional destination point with a population of over 3,500 people. Pender County, the last county to be designated in North Carolina, has its seat in Burgaw. Burgaw is home to the Pender Memorial Hospital, the Pender County Museum, and the main branch of the Pender County Public Library. The Town’s quiet residential areas serve as bedroom communities for employees in the Wilmington area. Burgaw is also home to the North Carolina Blueberry Festival, which has drawn an attendance of over 10,000 people in previous years. Burgaw residents take pride in their community, and have retained the small-town character that makes their Town unique.

North Carolina Highway 53 (NC 53) runs through the heart of Burgaw. This road links Burgaw with the Interstate 40 and connects all the way to Jacksonville and Fayetteville. In Burgaw, NC 53 links such important destination points as the fire station, municipal building, emergency medical services building, Pender County Courthouse, and the Depot.

NC 53 has a complex role in Burgaw. It serves as an important regional link as well as the primary downtown route. NC 53 is home to significant commercial activity, historic residential neighborhoods, and government centers. Truck traffic on NC 53 is heavy, and is primarily regional in nature. In fact, it is so heavy that a bypass or alternate route is currently being considered as a freight alternative through Burgaw.

Planning Process

The Town of Burgaw and the North Carolina Department of Transportation initiated the NC 53 corridor study to identify transportation issues and potential solutions facing the corridor. Extensive public involvement was conducted as a part of this study through the formation of an Advisory Group (AG), a stakeholder interview process, and a three-day public design charrette process taking place from October 10-12, 2006. This charrette was formatted in a way that gave the public opportunities to comment on different stages of the planning process. Attendees included a wide spectrum of participants ranging from town and county staff, business owners, area residents, and other key stakeholders.

Going into the public design charrette, three critical issues were identified for the corridor that had to be addressed head-on for this Plan to be successful. They include:

1. The Plan must address safety — not only for vehicles, but also pedestrian and bicycle mobility.
2. The Plan must be aesthetically pleasing and meet the needs of the community vision.
3. The Plan recommendations must be functional, implementable and affordable — endorsed by NCDOT and the Burgaw community; a plan which is based on sound engineering and planning principles can lead to easier implementation through phased improvements that are “doable.”

Day 1 of the charrette (held on October 10, 2006 in the Pender County Public Library) offered participants a chance to discuss issues currently facing the corridor and to identify potential solutions for corridor-wide and site-specific improvements. An overall presentation was given to introduce participants to the charrette process and to outline some of the topics for discussion. A vision for the study and a set of goals for the corridor were also developed. Following the presentation and discussion, attendees broke into work stations. Aerial photography and existing conditions mapping were provided at the work stations to facilitate discussion about the corridor.
Day 1 also provided key stakeholders in the study area an opportunity to comment on the needs they saw along the NC 53 corridor, their vision for Burgaw, and the attributes they wanted the corridor to retain or acquire in the future. The information gained from the stakeholder interviews was applied to conceptual designs for the project, and was a critical part of developing the alternatives and recommendations.

Some of the comments from Day 1 of the charrette included:

- Must be open to change
- Improve safety first and noise second for trucks
- “Built-in” traffic calming with design features
- Provide good bicycle and pedestrian connections to activity centers (library and schools) and cross connections
- Keep separation of land uses and provide better transitions
- Assume truck diversion from the corridor
- Phase improvements
- Catalyst for long-range planning
- Limit right-of-way takings
- Protect small town/historic character – downtown
- Utilities (consolidate, bury, etc.)
- Trade-offs between parking and bikeways
- Connect points of interest
- Opportunities for future bicycle and pedestrian facilities
- Incorporate traffic calming into plan
- Reinforce speed through design
- Establish/reinforce town image through design
- Preserve and enhance character through land use decisions
- Strike a balance between commercial and residential
- Address noise issues associated with truck traffic
- Act as a catalyst for long-range planning efforts
- Zoning changes
- Protect existing residents
- Establish character through streetscape/lighting/design
- Recapitalization/redevelopment guidelines
- Discourage speeding through traffic calming (narrow lane widths)
- Safety hazards from heavy vehicles and speeding
- Pedestrian/bicycle usability
- Potential greenway connections
- Control/slow down truck traffic without losing business
- Identify locations where traffic should be discouraged
- Safety highest priority
- Use this study to “jump-start” planning for Burgaw

From these ideas, a set of goals for the study was developed. These goals include the following:

- Consider all modes of travel in design
- Assume truck diversion
- Act as a catalyst for future planning efforts
- Provide phased improvements
- Limit right-of-way takings
- Provide bicycle and pedestrian accommodations
- Utilize built-in traffic calming methods
- Preserve and enhance character of corridor through land use policies
Day 2 of the charrette focused on developing alternatives for sections of the corridor. Based on the comments from Day 1, three context zones were established for organizing recommendations within the corridor. Within each context zone, different treatments were analyzed in order to maintain and enhance each area’s unique features. The image to the right highlights the extents of the three context zones. The Central Business Zone (highlighted in green), located in the heart of downtown and including the Burgaw Depot, serves as the major activity center in Burgaw. Activity nodes such as the County Courthouse, Municipal Building, and the Burgaw Depot lie in this zone. In addition, key destination points such as the Piggly Wiggly and the Burgaw United Methodist Church appear here. Key city services such as the police station, fire station, and EMS also lie in this context zone. The Residential Zone (highlighted in orange), includes historic homes leading into the downtown that buffer the area between urban and suburban Burgaw, a portion of which are included in the Burgaw Historic District. The third context zone is the Commercial Transition Zone (highlighted in purple), which serves as Burgaw’s heavy suburban-scale retail strip. This zone contains a shopping center, gas stations, and an auto parts store. Residential properties on the NC 53 corridor adjacent to existing commercial properties are beginning to shift to commercial uses, so an analysis of this area is timely.

During the pin-up session held at the Town of Burgaw Municipal Building, attendees had the opportunity to comment on design alternatives and provide direction for the final designs. Some of the comments received included:

- Revitalize Mystic Gas — “diamond in the rough”
- Gas lamps are a beautiful amenity and able to be appreciated at a pedestrian level
- Want to emphasize a gateway effect and provide a slow-down zone
- Ensure consistency of design throughout the corridor
- Address utilities throughout — current utilities may not be conducive to streetscape effect
- Match architecture of the focus areas — transition elements to match corridor features
- Mixed-use two-story facilities along the corridor would be great with residential on top
- Street trees and accommodations for bicyclists and pedestrians should be considered through all design zones
- Reduction of signage would be a welcome change
- Introduction of sidewalks beginning at US 117 is important
- Timberly Lane at NC 53 roundabout is a good idea; realigns intersection to accommodate all legs
- Celebrate arrival at Wilmington and Walker roundabout
- Angle parking has some safety concerns — consider reverse angle parking
- Aesthetics of the streetscape will make Burgaw a destination
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Day 3 of the charrette, held on October 12, 2006, focused on putting all of the comments and ideas heard in Days 1 and 2 together to form a plan that is financially reasonable and follows engineering and urban design principles. Following an intense design work session, a final presentation was given at the Pender County Public Library. The presentation covered transportation design recommendations, site-specific development alternatives, and policy recommendations. Exhibits with conceptual design plans, computer images, and hand renderings were displayed during the presentation. Discussion topics included the attributes of a gateway feature to the corridor, extension of the corridor themes to the I-40 interchange, preservation of downtown parking, potential creation of a “pocket park” on the corridor, and improved access management in the Commercial Zone context zone.

### Existing Conditions

NC 53 serves as the spine for Burgaw, connecting drivers from I-40 to the heart of downtown and on to Jacksonville. This road is presently a two-lane, undivided minor arterial lined with overhead power lines on both sides and alternating between open drainage swales and curb and gutter. Sidewalks cover portions of the corridor between Timberly Lane and Dickerson Street. Land uses along the NC 53 corridor range from commercial districts to residential neighborhoods.

### Traffic Volumes

Daily traffic volumes along the NC 53 corridor are about 9,000 vehicles per day. Large trucks constitute a significant amount of the total traffic found in the corridor. Many of the trucks along the route are log trucks and other irregularly sized vehicles. A tube count was conducted south of the intersection of NC 53 and Timberly Lane along the corridor. This tube count data, collected from October 2-3, 2006, included bidirectional traffic for a 24-hour period. The tube count data indicated that 23% of all vehicles at that location exceeded the speed limit. This data also provided a breakout of all vehicle types traveling through the area. This analysis showed that 4.9% of all vehicles were heavy traffic (i.e., not passenger vehicles), the majority of which were trucks.

<table>
<thead>
<tr>
<th>Class</th>
<th>Description</th>
<th>Direction 1</th>
<th>Total Vehicles</th>
<th>% of Total</th>
<th>Vehicle Grouping</th>
<th>% of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Motorcycles</td>
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<td>67</td>
<td>85</td>
<td>1.06%</td>
<td>Passenger Vehicles</td>
</tr>
<tr>
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<td>Passenger Cars</td>
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<td>Buses</td>
</tr>
<tr>
<td>3</td>
<td>Pickups</td>
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<td>1652</td>
<td>3034</td>
<td>37.92%</td>
<td>Single Unit Trucks</td>
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<tr>
<td>4</td>
<td>Buses</td>
<td>15</td>
<td>27</td>
<td>42</td>
<td>0.52%</td>
<td>Single Unit Trucks</td>
</tr>
<tr>
<td>5</td>
<td>Single Unit Two-Axle</td>
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<td>29</td>
<td>61</td>
<td>0.76%</td>
<td>Single Trailer Trucks</td>
</tr>
<tr>
<td>6</td>
<td>Single Unit Three Axle</td>
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<td>46</td>
<td>87</td>
<td>1.09%</td>
<td>Single Trailer Trucks</td>
</tr>
<tr>
<td>7</td>
<td>Single Unit Four or More Axles</td>
<td>3</td>
<td>4</td>
<td>7</td>
<td>0.09%</td>
<td>Multi-Trailer Trucks</td>
</tr>
<tr>
<td>8</td>
<td>Four or Fewer Axle Single Trailer Trucks</td>
<td>19</td>
<td>15</td>
<td>34</td>
<td>0.42%</td>
<td>Multi-Trailer Trucks</td>
</tr>
<tr>
<td>9</td>
<td>Five-Axle Single Trailer Trucks</td>
<td>91</td>
<td>49</td>
<td>140</td>
<td>1.75%</td>
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<td>10</td>
<td>Six or More Axle Single Trailer Trucks</td>
<td>4</td>
<td>4</td>
<td>8</td>
<td>0.10%</td>
<td>Multi-Trailer Trucks</td>
</tr>
<tr>
<td>11</td>
<td>Five or Fewer Axle Multi Trailer Trucks</td>
<td>3</td>
<td>2</td>
<td>5</td>
<td>0.06%</td>
<td>Multi-Trailer Trucks</td>
</tr>
<tr>
<td>12</td>
<td>Six Axle Multi Trailer Trucks</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0.00%</td>
<td>Multi-Trailer Trucks</td>
</tr>
<tr>
<td>13</td>
<td>Seven or More Axle Multi Trailer Trucks</td>
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<td>4</td>
<td>10</td>
<td>0.12%</td>
<td>Multi-Trailer Trucks</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>8001</strong></td>
<td><strong>100%</strong></td>
<td><strong>100%</strong></td>
<td><strong>100%</strong></td>
<td><strong>100%</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>
The study corridor currently has two signalized intersections: US 117 at NC 53 and Walker Street at Wilmington Street. Both of these intersections function at a level of service B in the PM peak hour, while US 117 at NC 53 operates at a LOS B, and Walker at Wilmington operates at a LOS A during the AM peak. This indicates that both intersections are currently performing well from a congestion perspective at their current capacity levels.

**Crash History**

One key component to this corridor study is to address traffic safety. A thorough examination of crash history and traffic patterns can usually predict key locations where an improvement in traffic safety will be beneficial to both a motorist and the community as a whole. According to data published by the North Carolina Department of Transportation, the cost of an average crash to the community is typically $42,000\(^2\). This cost includes medical care, emergency services, victim work loss, employer cost, traffic delay, property damage, and the overall quality-of-life. The costs for various types of crashes are provided in Table 2.

<table>
<thead>
<tr>
<th>Crash Type</th>
<th>Average Cost per Crash (2003 Dollars)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fatal Crash</td>
<td>$3,700,000</td>
</tr>
<tr>
<td>A Injury Crash</td>
<td>$220,000</td>
</tr>
<tr>
<td>B Injury Crash</td>
<td>$64,000</td>
</tr>
<tr>
<td>C Injury Crash</td>
<td>$31,000</td>
</tr>
<tr>
<td>Property Damage Only Crash</td>
<td>$4,500</td>
</tr>
<tr>
<td>Average Crash</td>
<td>$42,000</td>
</tr>
<tr>
<td>Non-Fatal Injury Crash</td>
<td>$46,000</td>
</tr>
<tr>
<td>Severe Injury Crash (F+A)</td>
<td>$1,300,000</td>
</tr>
<tr>
<td>Moderate Injury Crash (B+C)</td>
<td>$39,000</td>
</tr>
</tbody>
</table>

\(^2\) Data for NCDOT Crash Cost based on 2003 dollars (published August 5, 2005)

Crash data was obtained for the corridor from NCDOT between May 1, 2003 and April 30, 2006. Over the three-year analysis period, a total of 49 crashes occurred along the study corridor. Twenty-one of the total crashes involved some type of injury. The overall crash rate for the corridor was 322.89 crashes per million vehicle miles (MVM), which is 70 percent greater than the state average (191.04 crashes per MVM) for a similar type of corridor. During the analysis period seven crashes (17 percent) involved a heavy vehicle (i.e., trucks or buses). The most prevalent type of collision along the study corridor was either an angle or left turning movement collision, which are very similar in nature, involving vehicles from opposing directions. A large majority of these collisions occurred at the various two-way stop controlled intersections throughout the corridor. The following sections describe the crash history for some significant intersections along the corridor.

**US 117**

During the analysis period a total of ten crashes occurred at this location, with five of the total crashes involving some type of injury. This location is a signalized intersection, operated by a four-phase traffic signal. Each approach has a dedicated left-turn lane which operates as a permitted left turn only. Commercial establishments surround the intersection, with driveways located close to the intersection in all directions.

Two angle collisions occurred, both involving a vehicle traveling westbound. Three left-turning collisions occurred, with two of the collisions involving a vehicle traveling westbound and a vehicle traveling northbound. Four of the remaining collisions involved a vehicle losing control and striking another object, whether it is another vehicle or a fixed object.

Potential countermeasures to reduce the number of collisions at this location include upgrading the traffic signal to include protected left-turn phasing and/or consolidating and eliminating several commercial driveways in the vicinity of the intersection.

**Walker Street/Wilmington Street**

During the analysis period six crashes occurred at this location, with three of the collisions involving some type of injury. This location is a signalized intersection, operated by a four-phase traffic signal. Each approach has a dedicated left-turn lane which operates as a permitted left turn only.
Five of the six collisions involved a collision between vehicles traveling in opposing directions. Four of the collisions involved vehicles traveling in the eastbound and westbound directions. One of these crashes involved a heavy vehicle (i.e., a truck or bus). The remaining crash was a rear-end collision between vehicles traveling southbound.

Potential countermeasures to reduce the number of collisions include upgrading the traffic signal to include protected left-turn phasing in all directions, or to alter the geometry of the intersection with the construction of a roundabout, which is the recommendation of this plan.

**Timberly Lane**

During the analysis period three crashes occurred at this location, with zero injury crashes. This location is a stop controlled T-intersection, with NC 53 coming to a stop at Timberly Lane in the westbound direction. South of the intersection, Timberly Lane turns into NC 53 and continues into downtown Burgaw.

One of the three collisions involved a left-turn collision between vehicles traveling southbound. Another collision involved a vehicle leaving the travel lane heading west due to excessive speeding. The third collision involved a sideswipe collision between two vehicles traveling west, with one vehicle passing a right-turning vehicle.

All three collisions that occurred at this location point to the awkward geometry of the intersection and the high speeds of through-moving vehicles as the likely cause of the collisions. A potential countermeasure would be to introduce traffic calming measures as well as a new intersection geometry, such as the roundabout proposed in this study.

**Wright Street**

During the analysis period seven crashes occurred at this location, with two crashes involving some type of injury. This location is a two-way stop controlled intersection, with the movement on NC 53 operating under free flow conditions.

All seven crashes occurring at this location involved vehicles traveling in opposing directions, with four collisions between northbound and westbound vehicles, two collisions between southbound and westbound vehicles, and one collision between southbound and eastbound vehicles. Five of the collisions involved one of the vehicles traveling in excess of 30 miles per hour. A recurring complaint at the public charrette was the lack of sight distance from the side street approaches due to on-street parking adjacent to the intersection.

A potential countermeasure would be to limit the parking adjacent to the intersection. This could be accomplished using bulbouts at the intersection, which also would serve as a traffic calming tool to lower the speed of through-moving vehicles.

**Dudley Street**

During the analysis period eight crashes occurred at this location, with five of the crashes involving some type of injury. This location is a two-way stop controlled intersection, with the through movement on NC 53 operating under free flow conditions. The western quadrants of this intersection are commercial uses, with several driveways on each approach.

Six of the crashes involved vehicles from opposing directions, with five of these occurring due to left-turning collisions. Most of these collisions involved vehicles traveling at or above 30 miles per hour. One of these collisions involved a heavy vehicle (i.e., a truck or bus).

A potential countermeasure at this location would be to provide traffic calming tools, such as bulbouts and street trees that would reduce the speed of through moving vehicles. Another countermeasure would be to consolidate and/or eliminate driveways at the commercial uses adjacent to the intersection.

**Smith Street**

During the analysis period seven crashes occurred at this location, with two crashes involving some type of injury. This location is a two-way stop controlled intersection, with the through movement on NC 53 operating under free flow conditions. All four quadrants of the intersection contain commercial uses with several driveways in the proximity of the intersection.

Six of the crashes at this location involve a collision between vehicles traveling in opposing directions. The majority of these collisions involve one or more vehicles traveling in excess of 30 miles per hour. Two of the crashes at this intersection involve collision with a heavy vehicle (i.e., a truck or bus).

A potential countermeasure at this location would be to reduce the size of the travel lane to promote slower, safer speeds at the intersection. This could be accomplished through the use of traffic calming tools such as bulbouts,
street trees, on-street parking, and planted medians. In addition to these tools, another potential
countermeasure would be to consolidate and/or eliminate driveways at the adjacent commercial
establishments.

Existing Land Use Profile
Existing land use and development patterns adjacent to the corridor were assessed as a part of the
existing conditions assessment. In order to create a complete streetscape approach, land uses along
the corridor were evaluated to determine whether the current usage was “ripe” or “firm” for
redevelopment. A land use was recognized as “firm” if it was a viable business, occupied residence,
or historic structure. Alternatively, a land use was classified as “ripe” if it was vacant or unoccupied,
a business in decline, or a land use inappropriate for its surroundings. This assessment was
conducted by the consultant team to help determine the scope and type of land use recommendations
needed for the corridor and to identify opportunities for development and redevelopment.
Overall, the NC 53 corridor was found to be a very stable corridor, with few parcels classified as ripe
for change. The high percentage of occupied residences and businesses along the corridor is
indicative of the economic stability that currently exists in the downtown Burgaw area.

Recommendations
Recommendations for the NC 53 Corridor were developed through each of the three context zones.
A series of on- and off-road improvements to the transportation system were considered, and
redevelopment opportunities were identified throughout the corridor to modify or improve existing
land uses.

Commercial Transition Zone
The Commercial Transition Zone is a major retail area centered at the intersection of US 117 and NC
53 and continuing along US 117. Land use changes along the NC 53 Corridor indicate a shift in the
area near the intersection from residential to commercial uses. However, a smooth transition between
land uses is necessary to create a cohesive and pleasant streetscape effect. One way to accomplish this is to
create a “gateway” inviting motorists, pedestrians, and bicyclists into the corridor. This gateway would
incorporate elements of the streetscape features used elsewhere in the corridor. The photo simulations on the
following page illustrate the steps necessary to create a gateway effect.
Finally, a reduction of sign size maintains retail identity while creating a more aesthetically pleasing corridor. In addition, a gateway feature gives an inviting sense to the corridor and utilizes elements featured throughout the streetscape design.

Due to the low number of left turns at this location, provision of a median will create a landscaping opportunity and limit unnecessary pavement.

Consolidation of utilities to the west side of the street provides a more aesthetically pleasing view and an enhanced space for pedestrians.

Addition of mast arm signals cleans up the intersection and provides a visual tie-in to the rest of the corridor.

Constructing sidewalks on both sides of NC 53 creates a physical connection with the rest of the corridor and provides pedestrian access to retail areas.

NC 53/US 117 intersection as it is today.
The landscaping, monument signage, sidewalks, and median features displayed in the transformation of the gateway feature will be used in other areas of the corridor.

The recommended gateway treatment at this location encourages safety and mobility, by informing drivers that they are entering a community environment and should expect bicyclist and pedestrian activity. Based on a turning movement count conducted on October 3, 2006 and anticipated traffic volumes, the elimination of the left-turn lane at the intersection could be accommodated without negative impacts to the current level of service (LOS “B”). However, to accommodate left-turning vehicles, it is recommended that the signal be converted to a split-phase operation.

As travelers head south and west on NC 53 toward downtown, the typical cross-section should include sidewalks and street trees on both sides.

**Redevelopment Opportunities**

The intersection of US 117 and NC 53 provides some unique development opportunities. This area already features successful retail uses such as the shopping center, Hardee’s, McDonald’s, CarolinaPetro, GoGas, and Advanced Auto Parts. However, because of the heavy concentration of commercial uses on the north side of US 117 and the driveway entrances close to the intersection, there are often conflicts between the southbound queue and left turn movements, creating safety, congestion, and spillback problems. For travelers, it is a very confusing and frustrating situation. Thus, it is recommended that the driveway closest to the intersection leading to the Hardee’s and shopping center be closed. However, in order to encourage mobility through the shopping center, it also is recommended that the driveways currently serving as a back entrance to the center from NC 53 and US 117 be retrofitted to serve as the main entrance to the shopping center. Using restriping, resurfacing, and improved signage, the retrofitted entrance can be achieved without encroaching on existing property. These improvements will provide more opportunity for safe ingress and egress to the shopping center.

Across the intersection, service roads could provide improved access to CarolinaPetro as well as neighboring properties by linking NC 53 and Ridgewood Road. Additionally, McDonald’s could be accessed using the connecting driveway with CarolinaPetro. GoGas in the southwest corner of the intersection could gain backdoor access by adding a connecting driveway from the adjacent business.
Residential Zone

The Residential Zone (highlighted in orange) begins west of the Commercial Transition Zone. Currently there are a variety of homes, old and new, large and small, along this portion of the corridor. A typical cross-section was created for this area to remain consistent with the themes established in the gateway effect presented at the NC 53/US 117 intersection and to complement the residential feel of the area. The recommended cross-section includes sidewalks, where not already present, and a "plantable" verge area separating pedestrians from the roadway. Street trees that provide a "built-in" traffic-calming effect also are recommended to create a physical canopy and a visual separation between the roadway and the houses. The posted speed limit is recommended to be 35 mph between the US 117 and Timberly Lane intersections and 25 mph west of Timberly Lane. It should be noted that the improvements recommended to the cross-section do not involve taking any additional right-of-way.

This portion of the corridor also includes the intersection with timberly Lane (US 117 Business), which poses a safety concern due to its skewed design and proximity to Ashe Street. To address this concern, it is recommended that a roundabout be installed at this location.

The proposed roundabout would move the intersection slightly north of its current location. The sharp turning radius of vehicles going north onto Timberly Lane from NC 53 should be increased, particularly for the truck traffic that uses this turn to access the lumber yard and NCDOT facilities. This movement will involve taking some right-of-way; however, the property involved is vacant and owned by the Town of Burgaw. The roundabout would be one-lane with an inscribed circle of 100 feet. This radius would limit vehicles to an average speed of 15 miles per hour and trucks to an average speed of 10 miles per hour.
It should be noted that this radius is designed to accommodate a tractor trailer (WB-50). An apron of bricks or pavers would be provided to accommodate larger trucks if necessary. A planting area in the middle of the roundabout would be planted with local flowers or bushes.

A roundabout at this location also provides an opportunity to improve pedestrian movements related to the Town’s planned greenway along Osgood Canal that will loop to the Depot area. There are two possible methods for pedestrian crossings — brick crosswalk connections or box culverts with multi-use paths. The brick crosswalks would cross all four legs of the roundabout and could be used easily by both pedestrians and bicyclists. Alternatively, there are two large pipe culverts running under the road that appear to have been in place for a number of years. If these pipe culverts could be replaced with a large box culvert with extra space for a multi-use path, the path itself could travel through the culvert area, thus avoiding the intersection crossing entirely. In high water conditions, the crosswalks would still provide a safe crossing method.

It is recommended that the intersection of NC 53 and Cowan Street have a specialized treatment. As the corridor user approaches downtown, streetscape features should become more intense. This intersection is still in the residential area, and as a result, brick crosswalks are recommended for all four approaches to the intersection. Brick crosswalks will provide a transitional streetscape element consistent with the features used in the downtown area.

**Central Business Zone**

The Central Business Zone (highlighted in green) represents the heart of Burgaw. With the historic Courthouse at its center, this zone employs the most intense recommended streetscape elements of the corridor. The intersection of Bridgers Street and Walker Street is the entryway to this area. Currently, this intersection experiences travel safety problems due to its alignment. Drivers are unsure who has the right-of-way and pedestrians are not comfortable crossing. This is due to the width of the intersection and the lack of traffic...
Creating a pocket park along this corner provides a destination within reasonable walking distance from Burgaw’s main street as well as an attractive open space for surrounding uses. Including a key feature such as a fountain or art piece provides a visual draw for all users of the corridor.

As a result, it is recommended that improvements at this intersection include a “pork chop” island to separate traffic continuing northbound on Walker Street from the free flow traffic turning east onto Bridgers Street. This island will give pedestrians a refuge and provide a shorter distance to cross. In addition, when crossing the free flow right turn lane, pedestrians only have to be concerned about traffic from one direction. Brick crosswalks are recommended across all four legs of the intersection. In addition, pavers, bricks, or other decorative surface features are recommended for the center of the intersection itself. A special center treatment or design is recommended as a unifying feature between this intersection and subsequent intersections within the Central Business Zone. Sidewalks also are recommended to continue across the southeast quadrant of the intersection with a verge area and street trees.

Redevelopment Opportunities
As the development along the NC 53 corridor improves, so will its travel experience. Establishing a successful corridor will require the implementation of destination elements that incorporate more than just vehicles. For example, at the intersection of Bridgers Street and Walker Street there is a subtle transition between the residential and commercial uses. The southeast corner currently serves as a parking lot, but could become a destination point, halfway between I-40 and Burgaw’s main street. Using simple screening treatments or a small “pocket” park design, this intersection can become more than just a turn in the road. The illustrations to the left explore two potential treatments of the corner that would greatly enhance the corridor. The pocket park alternative would require approval from the current land owner, the Burgaw United Methodist Church. Since the church uses this area for overflow parking, the Town would need to accommodate this need. Some of this parking demand could be accommodated along Walker Street since the redesign plans call for additional on-street parking.

Typical Cross-Section
The Central Business Zone has additional elements in its existing typical cross-section than what was featured in the Residential Zone. Currently, there are sidewalks on both sides of the street. Some sections of the roadway have a verge area between the sidewalk and the street. On-street parking exists between Walker Street and Smith Street (with the exception of the front of the Depot). On Walker Street between Bridgers Street and Wilmington Street, on-street parking is not present. Instead, lane widths are 20 feet wide, which provides unnecessary width and encourages speeding.

Future cross-sections are recommended to include on-street parking from Bridgers Street to Smith Street with bulb-outs to help delineate parking, separate parking from driveways and intersections, and provide enhanced pedestrian crossing opportunities. Plantable verge areas between the sidewalk and travel lane are recommended throughout. This cross-section will not involve the use of any additional right-of-way.

Streetscape Features
The section of roadway between Bridgers Street and Wilmington Street currently does not have on-street parking. It is recommended that the wide lanes in this area be converted to 11-foot lanes with on-street parking and bulbouts. This modification will give the corridor continuity and will help improve safety along Walker Street.
It is recommended that a roundabout be installed at the intersection of Walker Street and Wilmington Street. This intersection operates under signal control. The installation of a roundabout would improve safety by eliminating conflicting turning movements and aesthetics by featuring design elements that tie in with the neighboring Pender County Courthouse, as well as enhance mobility by reducing delay of stopped vehicles at the traffic signal. It is recommended that this roundabout be located slightly north of the current intersection in order to avoid infringing on the right-of-way of the historic Pender County Courthouse. By doing this, right-of-way will be utilized on the north side of the intersection from two county-owned parcels. This right-of-way will only affect parking areas from the two parcels; however, the Pender County EMS should re-evaluate their access points to accommodate quick departures from their site.

Buried utilities are recommended between Walker Street and McRae Street. Underground utilities, while more expensive, will promote the historic feel of downtown and allow greater areas for landscaping.

**Redevelopment Opportunities**

Unlike the Residential Zone, the Central Business Zone presents a unique opportunity for infill development projects. As a result of the public design charrette, community leaders and local citizens came to consensus when referring to this section of the corridor. The Central Business Zone represents the core community environment that identifies Burgaw as a unique community with a small town feel and strong historic presence. The following development and redevelopment opportunities are described to strengthen the character of the community through urban design principles.

The historic Pender County Jail House (built in 1924) located along Wilmington Street served as the county jail until a new facility was built in the northern part of town. The facility retains its original look, other than a façade that has been whitewashed from its original brick appearance. This building presents a unique opportunity to restore historic integrity to the corridor, bring life back to its operation, and attract newcomers to the community. This could be done by restoring the façade to its original appearance and converting it to a use that invites the public to experience it. During the design charrette, some citizens expressed enthusiasm about the idea as they envisioned a restaurant with a jailhouse theme. Ownership of the property resides with Pender County; however, Town officials expressed interest during the charrette to reacquire it for jumpstarting efforts to rehabilitate the historic structure.

The Mystic gas station located at the corner of Wilmington and Wright Streets (refer to page 16) is a classic example of art deco architecture. This gas station, viewed as a gem by the local community, is remembered by many as having been one of the few gas stations in Burgaw. Revitalization of this landmark could take it from a...
The use of a building mural can be used to enhance the character of an otherwise drab façade along the existing Piggly Wiggly building.

In this view looking east toward the downtown district, NC 53 is only defined by the blank brick side wall of Piggly Wiggly. The after rendering displays how the mural will define the corridor. On-street parking, landscaping and a sidewalk add character and a painted mural decorates the blank side wall of the Piggly Wiggly.

(A) Redevelopment of the historic Pender County Jail House could provide a unique setting for a signature restaurant.

(B) Revitalization of the Mystic Gas Station could take it from a small gas station away from the main retail areas to a destination point within itself that complements the neighboring land uses.
small gas station away from the main retail areas to a destination point within itself that complements the neighboring land uses.

Opportunities for redevelopment and infill projects will only occur if the development community sees a return on their investment. Community leaders are encouraged to provide incentives through lower tax rates, service fees or other measures to stimulate development activity.

**Wilmington Street at Wright Street**

The intersection of Wilmington Street at Wright Street is a key intersection in the downtown area. Areas such as the Pender County Courthouse and the Wright Street businesses border this intersection. Safety issues currently exist at this intersection due in large part to the limits to sight distance when turning westbound onto Wilmington Street from Wright Street. In order to mitigate these safety concerns, it is recommended that bulbouts be extended into the intersection to provide additional sight distance. This will eliminate one to two parking spaces, but will greatly improve the sight triangle. This intersection also is recommended to have brick crosswalks and pavers with a design element in the center. The intersections of NC 53 at Dudley Street, Dickerson Street, and McRae Street also will feature this intersection treatment in order to provide a consistent feel to the downtown portion of the corridor. This treatment also will tie in the intersection of Bridgers Street and Walker Street, which features similar design elements.

On-street parking with bulbouts will continue throughout the remainder of the corridor, with the exception of the section from Dudley Street to Dickerson Street in front of the Depot. For this area, it is recommended that a solid band of landscaping and street trees be provided. NCDOT owns the property on both sides of the road and reserves the right to reactivate the rail line. Since this is also a connection for the proposed Osgood Canal Greenway, the area should promote bicycle and pedestrian uses rather than being focused on automobile use.

The intersection of NC 53 and Smith Street is the western terminus of the study corridor, and transitions from urban to suburban. To reflect this trend, it is recommended that a landscaped median be installed from McRae Street to Smith Street. In addition, a smaller version of the gateway feature at the intersection of US 117 and NC 53 is recommended at the Smith Street intersection. This gateway feature will signal the entrance into the urban area and will provide users with a visual cue that similar streetscape elements will be present in the corridor.

**Redevelopment Opportunities**

The historic Burgaw Rail Depot is one of the most important cultural features of Burgaw. More importantly, it is located right along the NC 53 corridor. Between the Depot and Smith Street lies an opportunity for infill development to address the crossroads of the railroad and NC 53. A number of different commercial uses centered along NC 53 can infill the expanse of underutilized parking, and can be identified by signature architecture and specialty shops and restaurants. A regulatory framework for implementing conceptual design initiatives welcomed at the charrette should be explored in subsequent planning studies. These studies would consider permitted uses, development intensities, design guidelines, and tools available for expediting redevelopment efforts within the corridor.

**Corridor Recommendations**

An appendix to this report provides conceptual design plans for the full extents of the NC 53 corridor. These drawings feature the design elements discussed in the recommendation section, reference proposed cross-sections, and provide guidance for driveway treatments and neighboring uses. The drawings in Appendix A should be used as a blueprint for implementing traffic calming measures, streetscape elements, and roadway design components.
Land Use Policy and Program Initiatives

A series of policy and program initiatives were developed to provide a holistic approach for implementing recommended streetscape improvements and other mechanisms supportive of redevelopment within the NC 53 corridor. These policies and programs are low-cost solutions that will promote good land use practices along the NC 53 corridor and throughout Burgaw.

Burgaw NC 53 Highway Overlay District

Issue: Promote better landscaping, access management, and sign controls along the NC 53 corridor

Recommendation: Adopt NC 53 Gateway and Downtown Commercial Corridor Overlay Zoning Districts

The purpose of an Overlay District is to enhance the aesthetics along the NC 53 Corridor by promoting supportive landscaping, access management, and sign controls. The overlay zoning requirements would be superimposed over the existing commercial zoning districts. Requirements of the underlying zoning which are not addressed by an Overlay District would continue to apply. All non-residential buildings and accessory uses should comply with these requirements.

The NC 53 corridor generally has two different types of commercial areas — the highway business area (i.e., Commercial Transition Context Zone) located at the NC 53 and US 117 intersection and the Urban Core Central Business District (Central Business Context Zone) located along Walker and Wilmington Streets. Each of these commercial areas has its own unique character that can be enhanced by additional design requirements. Consequently, it is recommended that the Town of Burgaw consider adopting a Gateway Corridor Overlay District and a Downtown Commercial Overlay District. Some additional requirements would be stipulated for all overlay districts while other requirements would pertain only to a particular district.

Gateway Corridor Overlay District:

This overlay district should be implemented for the B-2 Commercial District located at the NC 53 and US 117 intersection. The Town of Burgaw may want to extend the Gateway Corridor Overlay District along NC 53 to the I-40 interchange once this area is annexed by the Town. Additional parking, landscaping, and access management regulations would be addressed. Some examples include:

- **Landscaping** — The current landscaping regulations only require that either perimeter or interior landscaping be done whereas the overlay district could require both types of landscaping be included.
- **Buffer Widths** — Additional buffer width should be required between residential and non-residential uses to provide better separation of uses. The current UDO regulations only stipulate a minimum buffer strip of ten feet.
- **Signage** — Ground signs should be the only type of free-standing sign permitted in the Gateway Overlay District at a maximum height of eight feet. Off-premises advertising signs (including billboards) should be prohibited. Any change in use of commercial buildings should require the issuance of a new sign permit.
This would be an important means to bring non-conforming commercial signs into compliance with the new regulations as soon as possible.

- **Facade** — Restrict blank facades along the NC 53 Corridor. Architectural design standards would be needed to address this issue.

- **Off-Street Loading** — The current UDO regulations do not stipulate where off-street loading should be provided. It is proposed that off-street loading in the overlay district be located to the rear or side of principal building as viewed from the NC 53 Corridor. If loading is performed on the side of the building as viewed from the NC 53 Corridor, then additional screening should be required.

- **Screening for Dumpsters and Outdoor Storage** — Dumpsters and outdoor storage should be screened and not visible from the NC 53 Corridor.

**Downtown Commerical Overlay District:** Most of the NC 53 Corridor located in the Central Business District is zoned as B-1, with the exception of the businesses located on the corner of Smith and Wilmington Streets which are zoned as B-3. The B-1 Central Business District has no setback requirement. New construction should be encouraged to be set as close to the right-of-way as possible in order to create a consistent building frontage and urban feel. It is recommended to reduce the front yard setback requirements in the B-3 commercial district at Smith Street in order to promote a more urban character near the Central Business District. Landscaping and signage requirements would be developed to enhance the urban streetscape. Many of the other proposed overlay district requirements stated for the Gateway Overlay District also would pertain to the Highway Overlay District.

**Historic Preservation Commission**

**Issue:** Preservation of historic character prevalent along NC 53 Corridor

**Recommendation:** Establish Local Historic Preservation Commission to better preserve Burgaw’s heritage

A major principle stated in the 1997 Town of Burgaw CAMA Land Use Plan as well as the Comprehensive Long Range and Strategic Plan Outline is “to protect the charm/character of the our Town.” Approximately 50 percent of the Study Corridor is located within the Burgaw National Register Historic District that was designated in 1999.

According to the North Carolina State Historic Preservation Office, listing in the National Register means the following:

1. **Consideration and Protection in Public Planning.** — All properties and districts listed in or eligible for the listing in the National Register are considered in federal highway undertakings such as highway construction and Community Development Block Grants. Similarly, North Carolina law (G.S. 121-12a) provides for consideration of National Register properties in undertakings funded or licensed by the state.
Incentives for Preservation of National Register Properties — Privately owned buildings listed in the National Register or are contributing buildings in a National Register Historic District may be eligible for federal and state investment tax credits claimed against the costs of qualified rehabilitation of the buildings. There also are limited grants and loans for the rehabilitation of National Register properties. The National Register listing is an honor, not a right, meaning that a property or a district has been researched and determined to be worthy of preservation for its historical value. This listing does not obligate or restrict a private owner in any way unless the owner seeks a federal benefit such as a grant or tax credit. Consequently, buildings within a National Register Historic District that have not obtained any tax credits may be demolished or remodeled without given prior notice or receiving a “certificate of appropriateness.” As an example, the Trainmasters House in Burgaw was recently remodeled in such a fashion that compromised its architectural integrity, even though this formerly noteworthy house is located in the Burgaw National Register Historic District.

For these reasons, local historic preservation commissions are often considered the most effective means for promoting sustained historic preservation efforts. The creations of such commissions are local options that are authorized by N.C.G.S. 160A-400.1-400.14 and generally established where there is sufficient local interest. The commission makes recommendations that certain historic landmarks or districts be designated by local ordinance. Landmark designation is an honor and owners of historic landmarks are eligible to apply for an annual 50 percent tax deferral as long as the property’s important historic features are maintained. A Historic District Overlay District is a type of zoning that applies to entire neighborhoods or other areas that include many historic neighborhoods. Owners of local landmarks and property in local historic districts are required to obtain a “certificate of appropriateness” from their preservation commission before making significant changes or additions to a property, before beginning new construction, or before demolishing or relocating a property. More information concerning local historic preservation commissions is available from the North Carolina State Historic Preservation Office (919)733-4763 or by visiting the agency’s website at www.hpo.dcr.state.nc.us.

Market Analysis

Issue: The Town’s vision is to grow the tax base by attracting new development, being proactive and looking at innovative ways of improving the local economy, and recruiting environmentally-friendly industries that blend in with the Town

Recommendation: Conduct a market analysis for the Town to determine strengths and weaknesses of the local economy and develop effective market-driven strategies

The NC 53 corridor serves as the primary access route to the Central Business District as well as major highway and neighborhood commercial districts in Burgaw. A market analysis would provide local public officials, business leaders and developers with a better understanding of the changing marketplace. The first step is to analyze current building uses, business mix, trade area size, economic and consumer data, consumer attitudes and business operators’ needs. This analysis provides the foundation to identify business and real estate development opportunities that are achievable. Potential outcomes from conducting a market analysis for the Town are summarized from information posted on the website “Downtown and Business District Market Analysis” (www.uwex.edu/CES/cced/dma):

- An understanding of the local trade area, including customer base and business competition
- Summary of issues such as business mix, vacancies, intense competition from the edge of town, etc.
- Demonstration of the economic importance for downtown within the local trade area
- Identification of niche markets
- Identification of an appropriate mix of uses for downtown and geographic clusters
- Development of a market-driven promotional plan

Promote Mixed Use Development and Redevelopment in the Urban Core

Issue: Promote Mixed Use Development in the B-1 Central Business District

Recommendation: Promote second-story apartments as a conditional use in the B-1 District

The design charrette identified several parcels such as the Family Dollar Store and Piggly Wiggly sites as being suitable for redevelopment or infill projects. Such redevelopment should be designed to reinforce the urban character of downtown Burgaw with two-story buildings. Retail and office uses would be appropriate for the first floor units with second-story apartments located on the upper floor. Second-story apartments may also be appropriate for vacant spaces located above several businesses along Courthouse Square. Currently, “accessory” apartments located on the second-floor of these buildings are permitted as a conditional use in the B-1 District. The term “accessory apartment” implies a primary residence and is misleading. The Town of Burgaw should clarify its Unified Development Ordinance to permit second-story apartments as a Conditional Use in the B-1 Commercial Zoning District.

Encroachment of Commercial Uses in Residential Area

Issue: Commercial development expanding along NC 53 Corridor from the intersection of NC 53 and US 117

Recommendation: Limit rezoning of R-12 parcels along NC 53 corridor

There is pressure from local businesses and property owners to rezone residential parcels located near the intersection of NC 53 and US 117 from R-12 to B-2 Highway District zoning. One house in this area currently
has a sign stating that it is for sale with the "potential for commercial use." Such encroachment will impact the residential houses located along the NC 53 corridor. No commercial rezoning should be permitted beyond the residential parcels bordering North McNeill Street to preserve the integrity of this residential corridor. Office type uses would provide a better transition from commercial to residential along the NC 53 corridor.

Pedestrian and Bicycle Connections with NC 53 Corridor

Issue: Promote non-vehicular access to and from major trip generators along and across the NC 53 Corridor (e.g. the courthouse, schools, parks, library, etc.)

Recommendations: Adopt the Osgood Greenway Plan, develop a walking tour of the Burgaw National Register Historic District, and designate bicycle routes through Burgaw

The density of development in Burgaw’s downtown is conducive to pedestrian traffic. Unfortunately, the location of many community facilities such as the Burgaw Elementary School, the Pender County Public Library, the Burgaw Middle School, and the Municipal Building as well as several churches and parks require many schoolchildren, other walkers, and bicyclists to cross NC 53. One of the major design objectives of the various proposed intersection improvements is to provide safer pedestrian crossings along NC 53. The pedestrian character of Burgaw would be enhanced by three additional local efforts. While sidewalks now line parts of the NC 53 corridor, it is important to complete the gaps in the existing sidewalk system. The Town of Burgaw is considering developing the Osgood Greenway, a proposed multiuse trail that would be built along the floodplain of the Osgood tributary. This proposed trail would provide an alternative walking and biking path connecting the two schools and the library. Several charrette participants also advocated developing a walking tour of the Burgaw National Register Historic District to promote historic preservation and awareness.

Many of the proposed NC 53 corridor improvements accommodate bicycles. It is recommended that staff develop a bicycle path through the Town that utilizes these improvements along NC 53, other side streets, and the proposed Osgood Greenway. It is important to consider these proposed pedestrian and bicycle improvements in order to develop a comprehensive plan that promotes safer travel for vehicles, pedestrians, and bicyclists.

Parking Study

Issue: Lack of parking turnover in the Central Business District

Recommendations: Evaluate parking needs along the NC 53 corridor, determine appropriate locations for off-site employee parking, and enforce two-hour on-street parking limits

Many of the business owners in the Central Business District complain about the lack of sufficient parking for their customers. Several claim that courthouse employees parked in the spaces along the Courthouse Square, thus reducing the number of parking spaces that are available for customers. One merchant conducted an informal parking study that revealed there are approximately 103 employees who work in the downtown area, but only 100 parking spaces available. According to this merchant, a common practice is for storeowners to try to leave the spaces in front of their business open, but then park in front of a nearby business. Signs along the Courthouse Square stipulate a two-hour parking limit, but there is little enforcement of this regulation. Two efforts would help minimize these problems. First, suitable sites for off-street parking lots in the downtown for courthouse and county employees should be identified or developed. Secondly, the two-hour parking limit for on-street parking should be enforced to promote adequate parking turnover and prevent downtown employees from using public parking spaces.

Enforcement of Commercial Truck Regulations

Issue: Numerous commercial trucks utilizing NC 53 appear to exceed State weight and length limitations, thereby posing a safety concern as well as accelerating the deterioration of NC 53 pavement

Recommendation: Request that representatives for the NC State Highway Patrol Motor Carrier Enforcement Division regulate weight, length, and width requirements for commercial trucks traveling on NC 53 through Burgaw

In January 2003, the North Carolina Highway Patrol was designated as the only law enforcement agency responsible for enforcement of motor carrier regulations. The Troop B Motor Carrier Enforcement Division located in Fayetteville enforces these regulations for Burgaw and Pender County. There are numerous state and federal regulations governing the proper operation of commercial vehicles. The Motor Vehicle Enforcement Division conducts spot checks of commercial trucks by using portable scales and is receptive to conducting these inspections when requested by local officials and citizens. According to First Sergeant Lieutenant Ritter, the Motor Carrier Enforcement Division prefers to coordinate such efforts with local law enforcement.

Implementation Plan

Completion of this feasibility study represents an important step forward towards implementing travel safety and aesthetic improvements in the NC 53 corridor. The conceptual plans depicted in the appendix of this report will require a limited amount of additional right-of-way to realize the vision illustrated in these drawings. Freight mobility needs to be addressed prior to implementing the majority of these improvements. Last, but certainly not least, reasonable funding strategies need to be identified to build the entire project, so a selective phasing of construction will be necessary.

Furthermore, a number of transportation and land development issues were raised by citizens during the charrette, some of which drew emotions from participants who expressed frustration over delays in getting transportation improvements done. Unfortunately the planning, design and construction of publicly-funded transportation projects typically takes ten years or longer in environmentally-sensitive or coastal areas. Local, State and private partnerships offer strategic advantages to implementing improvements on a timely basis.
The purpose of the Implementation Plan is to recognize these challenges and suggest strategies to address each challenge. Following are general recommendations and action strategies offered by the consultant.

**General Recommendations**

The following recommendations apply to the overall vision for the corridor as expressed by the local citizenry and elected officials. These recommendations can be initiated throughout the planning process and prior to any physical infrastructure improvements.

- **Improve accessibility to high-density residential areas and activity centers such as the NC 53/US 117 commercial area, activity nodes, and other planned retail centers.**
- **Use this plan as a tool to review proposed development projects and plans as they locate and are implemented within the corridor.**
- **Integrate future bikeways, greenway, and trail networks (i.e., Osgood Canal greenway) with the NC 53 corridor plan to create an interconnected network.**
- **Avoid and/or minimize impacts to environmentally sensitive areas to preserve the natural environment.**
- **As the transportation corridor is improved and expanded minimize impacts that negatively affect the character and integrity of adjacent neighborhoods by introducing gateways or traffic calming improvements.**
- **Promote alternative modes of transportation through better street design and developer participation.**
- **Promote interconnectivity and cross-access between existing and proposed developments.**

**Right-of-Way (ROW) Requirements**

Generally, the recommendations presented herein can be accomplished within available right-of-way, with three major exceptions.

**NC 53/US 117 Intersection**

The connectivity improvements recommended at NC 53/US 117 impact several businesses within the northeast and southwest quadrants. Collector street and cross-access connections are recommended to provide additional mobility and access to abutting properties. Only property impacts are anticipated. There are no structural impacts.

**NC 53/Timberly Lane (US 117 Business) Intersection**

The proposed roundabout at Timberly Lane would impact the northeast and southwest quadrant properties. A limited amount of right-of-way on the southwest quadrant would have to be acquired to construct additional sidewalks on the perimeter of the roundabout. The Town of Burgaw owns the property located at the northeast quadrant. A significant amount of this property would be acquired to accommodate the recommended roundabout. Property impacts are anticipated; however, there should be no structural impacts.

**NC 53/Walker/Wilmington Street Intersection**

The proposed roundabout at Walker/Wilmington Street would impact the northeast and northwest quadrant properties. No additional right-of-way is anticipated from the Dance Studio or County Courthouse properties. A limited amount of ROW would be acquired from the EMS property (northwest quadrant) and the County office property (northeast quadrant). However, the necessary right-of-way is currently designated as parking. There are no impacts to surrounding structures. Ingress and egress to the EMS station could be accommodated through alternative access points as indicated on the conceptual plan maps (see Appendix).

**Probable Construction Costs**

As part of the corridor planning process, probable cost estimates were developed for each major element of the corridor improvements. These cost estimates were prepared in year 2006 dollars and do not include right-of-way costs. The total probable construction cost for the streetscape improvements for the project is $3,400,000. The total cost estimate for each element included the following categories:
• Roadway and pavement
• Landscaping
• Design services
• Contingency

A summary of construction by “phased” improvement is provided in the subsequent sections.

**Responsible Agencies**

The agency responsible for the implementation of the recommended corridor improvements also was identified. Some of the proposed improvements along the study corridor cross over right-of-way that is owned by different public and private agencies. Some improvements will occur as a result of development and redevelopment opportunities along the corridor. The majority of responsibility for implementing the NC 53 Corridor Improvements will be a coordinated effort between NCDOT and the Town of Burgaw.

**Construction Phasing**

The timeframe needed for implementation was a consideration for the corridor study. Factors that can affect the timeframe may include:

- Funding availability
- Permitting
- Right-of-way acquisition
- Public support or opposition

With this in mind, not all of the improvements can be made at one time. One of the guiding principles of this study is that the volume of tractor trailers must be reduced before implementing a majority of the streetscape features proposed along the corridor. Currently, there are approximately 400 tractor trailers that use NC 53 on a daily basis. The high level of truck traffic is causing damage to the pavement as well as potential damage to structures along the corridor. Limiting the high volume of truck traffic can be accomplished when an alternative truck route is identified via a bypass of the community or an existing alternative route. When preparing construction documents for the recommended improvements, Town officials may still want to consider design treatments for select intersections (such as curb-casing around corners) to protect their investment from heavy truck traffic that remains in the corridor for serving local destinations (e.g., delivery trucks for downtown businesses) after designation of the alternative route.

The following information provides the proposed timeframe of implementation. The timeframe of project recommendations is addressed in three phases. Projects in Phases I and II are identified for short to mid-term implementation prior to 2013. Phase III projects are identified for long-range implementation and require tractor trailer truck diversion.

**Phase I — Short-Term Improvements**

- **US 117 to McNeil Street** — construct streetscape improvements including roadway, curb and gutter, landscaping, gateway, plantable verge areas, street trees, crosswalk and sidewalks. Probable construction cost is $250,000.
- **McRae Street to Walker Street** — bury existing utilities. Probable construction cost is $1,000,000.
- **South Smith Street to Walker Street** — construct streetscape improvements including roadway, curb and gutter, landscaping, gateway, on-street parking, plantable verge areas, street trees, crosswalks and sidewalks. Probable Construction Cost $600,000.
- **McRae Street to Walker Street** — establish a gas-lamp district. Probable construction cost still to be determined.
- **US 117/NC 53 Intersection** — construct access and cross-access connections. Probable construction cost is $600,000 to $800,000.

**Phase II — Mid-Term Improvements**

- **McNeil Street to Walker Street** — construct streetscape improvements including roadway, curb and gutter, landscaping, on-street parking, plantable verge areas, street trees, crosswalks and sidewalks. Probable construction cost is $520,000.

**Phase III — Long-Term Improvements**

- **Timberly Lane Intersection** — Construct roundabout. Probable construction cost is $250,000.
- **Walker Street/Bridgers Street Intersection** — Construct intersection channelization improvements. Probable construction cost is $175,000.
- **Walker Street/Wilmington Street Intersection** — Construct roundabout. Probable construction cost is $250,000.

**“Action Plan”/Funding Strategies**

A concurrent step to identifying the phasing of transportation system improvements along the NC 53 corridor is to explore financing alternatives for the recommendations. However, a limited range of funding options is available to implement recommended improvements.
Although funds are limited and generally programmed well in advance, there are a few funding categories that are potential sources or financing for these improvements. Some funding options require local matching funds. Because the list of recommended improvements contains a variety of projects, it is recommended that the “typical” funding types be explored and exhausted for each individual improvement. For example, all sidewalk and gateway improvements should seek “enhancement” funds and all roadway improvements should seek State funds, at a minimum.

Public-private venture agreements also can be leveraged to implement a specific improvement, especially if there are identified benefits or incentives to both parties. The following list identifies “action items” that should be initiated by the Town to begin the process of improving the NC 53 corridor.

**Priority “Action Items”**

- Pursue plan adoption by implementing agencies including the Town of Burgaw and the North Carolina Department of Transportation (NCDOT).
- Utilize the Advisory Committee to meet regularly and aid in the implementation process.
- Adopt a land development ordinance that requires developers to implement the “intent” of recommended improvements for the NC 53 corridor, building in flexibility for access and design to fit their individual development schemes.
- Lobby NCDOT and members of the State Board of Transportation (BOT) to include partial funding of improvements in the next Transportation Improvement Program (TIP) to design and implement.
- Pursue NCDOT STP-Enhancement grant funding to install bike lanes on existing facilities. These funds are administered through a grant program with a 20% local match requirement. More information is available on the NCDOT website (www.ncdot.org/financial/fiscal/Enhancement/).
- Pursue NCMA (“Moving Ahead”) NCDOT Division 3 funding to implement spot improvements along the corridor such as intersection treatments.
- Pursue Economic Development funding through NCDOT Division 3 for recommended improvements between South Smith Street and Walker Street (i.e., Central Business District).
- Pursue NCDOT Division 3-Small Construction Funds and Contingency Funds. These funding programs are typically requested by NC House or Senate representatives for their local districts.
- Consider a transportation bond referendum to complete “gaps” along the corridor.
- Consider providing a tax incentive to existing property owners and developers located at the intersection of NC 53/US 117 for constructing access connections recommended near the intersection.

- Require dedication of connector street right-of-way for redevelopment or rezoning applications at the NC 53/US 117 intersection.
- Adopt a Gateway Corridor Overlay Zoning District. The overlay district should be implemented for the B-2 Commercial District situated at the NC 53/US 117 intersection. The Town of Burgaw should extend this district boundary along NC 53 to the I-40 interchange once this area is annexed by the Town.
- Adopt a Downtown Corridor Overlay Zoning District to regulate building frontage, setback requirements, etc. to support urban character and historic integrity of corridor.
- Establish a local Historic Preservation Commission to better preserve Burgaw’s heritage. Historic properties may be eligible for federal and state investment tax credits claimed against the costs of qualified rehabilitation of the buildings.
- Conduct a market analysis for the Town to determine strengths and weaknesses of the local economy and to identify development and redevelopment opportunities.
- Adopt the Osgood Canal Greenway Plan to ensure quality bicycle and pedestrian connectivity along the NC 53 corridor.
- Evaluate parking needs along the NC 53 corridor, determine appropriate locations for off-site employee parking and enforce two-hour parking limits.
- Request that representatives for the NC State Highway Patrol Motor Carrier Enforcement Division regulate weight, length, and width requirements for commercial trucks traveling on NC 53 through Burgaw.

**Conclusion**

There are a variety of funding strategies to implement the recommended improvements for the NC 53 corridor. These funding strategies include state and local monies, which are often limited or committed well into the future. Grant funding from the state typically requires a local match, but these monies may be used to cover many of the capital and operating expenses identified in the recommendations for the corridor. Some of the improvements will be made in partnership with the private sector.

An incremental funding approach would be possible, but is not as attractive because the full benefit of the collective improvements would not be realized for quite some time. Alternative funding sources for expediting construction include special assessments and/or a locally-adopted transportation bond.

One this is certain, with the current transportation funding shortfall the most critical steps toward implementation will be carried by “champions for change” identified within the community. In collaboration with state and local officials, their collective efforts will lead to a safe, aesthetically-pleasing gateway through the heart of Burgaw worthy of a post card photo.