

A RESOLUTION ADOPTING THE SAFE ROUTES TO SCHOOL ACTION PLAN  
Draft Resolution No. 161/2011-12

WHEREAS, *Carrboro Vision 2020* states that the “safe and adequate flow of bus, auto, bicycle and pedestrian traffic within and around Carrboro is essential”, and *Vision 2020* Policy 3.25 encourages pedestrian safety; and

WHEREAS, the Carrboro Comprehensive Bicycle Transportation Plan of 2009 recommends implementing Safe Routes to School planning activities and events; and

WHEREAS, the federal Safe Routes to School program was created in 2005 in the Federal Highway Administration to provide support for Safe Routes to School planning, projects, and promotions nationwide; and

WHEREAS, the Town of Carrboro, Carrboro and McDougle Elementary Schools, stakeholders, and consultants have developed a Safe Routes to School Action Plan to guide future decisions on increasing the viability and safety of walking and bicycling to school; and

WHEREAS, public and stakeholder input on the Action Plan was sought and received through a variety of means, including a public open house, newsletter, presentations at school events, through phone and email, and via communications with PTAs; and

WHEREAS, goals and objectives for the Action Plan were articulated by an Action Plan Team – a steering committee made up of school administration, faculty, and staff; advisory board members, Chapel Hill-Carrboro City Schools (CHCCS) staff, and Town staff; and

WHEREAS, the Board of Aldermen received a presentation on the Action Plan on February 15, 2011; the CHCCS Board of Education received a presentation on the Action Plan on April 19, 2012; and the Action Plan was presented at the May 3, 2012, joint advisory board review meeting; and

WHEREAS, walking and bicycling to school helps kids be physically active, live healthy lifestyles, and spend time outdoors; and

WHEREAS, walking and bicycling to school has the potential to reduce congestion and improve air quality at school drop-off areas, and reduce greenhouse gas emissions, by decreasing dependence on automobile travel;

NOW, THEREFORE BE IT RESOLVED by the Carrboro Board of Aldermen that the Board of Aldermen adopts the Safe Routes to School Action Plan.

BE IT FURTHER RESOLVED that:

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

A RESOLUTION RELATING TO THE SAFE ROUTES TO SCHOOL ACTION PLAN

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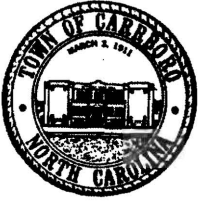
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NOW, THEREFORE BE IT RESOLVED by the Carrboro Board of Aldermen that:

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_



TOWN OF CARRBORO  
**PLANNING BOARD**

*301 West Main Street, Carrboro, North Carolina 27510*

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**R E C O M M E N D A T I O N**

**THURSDAY, MAY 17, 2012**

**Safe Routes to School Action Plan**

The Planning Board fully endorses the Town of Carrboro Safe Routes to School Action Plan presented to the board by staff on May 3, 2012. This plan introduces a comprehensive range of improvements for ensuring greater safety, wellness, and quality of life for all Carrboro residents, starting with our children. Along with the inclusive process that created it, and the resulting visions and goals, the board endorses the plan's "5 Es" strategy of engineering, education, encouragement, enforcement, and evaluation – a strategy which recognizes the collaborative nature of community health.

As a plan it is clear and direct in its presentation and we hope it will be readily implemented.

Moved: CHANEY, Seconded: SEILS

**VOTE:**

**AYES:** Barton, Chaney, Clinton, Ferrer, Foushee, Killeen, Poulton, Schaefer, Seils,

**NOES:** None

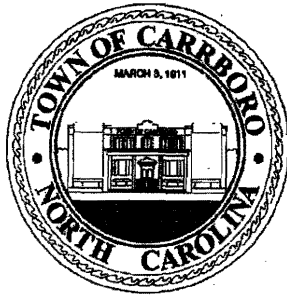
**ABSENT/EXCUSED:** Hunt, Jaimeyfield

**ABSTENTIONS:** None

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John Killeen, Chair

May 17, 2012



TOWN OF CARRBORO

TRANSPORTATION ADVISORY BOARD

RECOMMENDATION

May 17, 2012

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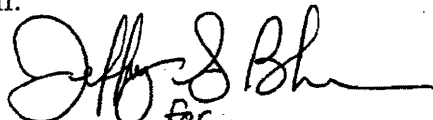
SUBJECT: Safe Routes to School Action Plan

MOTION: The Transportation Advisory Board recommends that the Board of Aldermen adopt the Safe Routes to School Action Plan with the additional element of having a component that evaluates the effectiveness of the plan as implemented.

Moved: Perry

Second: LaJeunesse

VOTE: Ayes (4): LaJeunesse, Štolka, Perry, Haac. Nays (0). Abstain (0). Absent (1): Sieff.

  
for  
Seth LaJeunesse

TAB Chair

5 / 18 / 12  
DATE

**Placeholder for Greenways Commission recommendation. The Commission will consider making a recommendation on the Action Plan at its May 21, 2012, meeting.**

# 1

# INTRODUCTION

## Chapter Outline:

1.0 Background 1.1 School Descriptions 1.2 Planning Process 1.3 Vision and Goals

1.4 SRTS Action Plan Framework



## 1.0 BACKGROUND

The Town of Carrboro Safe Routes to School Action Plan is a planning document prepared by committed citizens, parents, school administrators, and local government officials that recognizes goals and visions for enhancing opportunities for active travel to school, and outlines ways to turn those opportunities into realities. The Action Plan is the best first step in a successful Safe Routes to School program. This Action Plan addresses Carrboro Elementary and McDougle Elementary Schools. The planning process served as an excellent tool for engaging schools and preparing them to make significant changes in their travel environments.

Many adults today walked or bicycled to school when they were young. But few of today's children enjoy that trip. There are a number of reasons for the decline in active travel to school, from land use policies and school consolidation, to fears about traffic safety and lack of infrastructure for non-motorized transportation. As a result, more parents are driving their children to school, morning traffic congestion is getting worse, and children are getting less exercise. Childhood obesity and diabetes rates are at all-time highs. Committed citizens in North Carolina can change this cycle, just as those in other communities across the country have done.

Safe Routes to School began as a safety initiative in Odense, Denmark about 30 years ago. The community was experiencing a high rate of crashes, including fatalities, involving children on their way to and from school. To resolve the problem, the Town brought together a diverse group of citizens, transportation professionals, and local government representatives who developed and implemented a variety of infrastructure improvements and educational and awareness programs. They achieved dramatic

results, with 29% fewer crashes involving students and a 58% reduction in the overall number of crashes involving pedestrians and cyclists. Because of the community's educational program highlighting the benefits of bicycle helmets, their use increased significantly and injuries declined<sup>1</sup>.

Clearly, Safe Routes to School helps not only schoolchildren, but also the community as a whole. Other European cities took note and began their own programs, followed in short order by cities in New Zealand, Australia, and Canada, then the United States in the 1990s. The Bronx is credited with the United States' first Safe Routes to School program<sup>1</sup>. Successful federal pilot programs in California and Florida have demonstrated how educational and encouragement programs can help get more children safely walking and bicycling to school, and have paved the way for a national Safe Routes to School program.

### The primary goals of the Safe Routes to School Program are to:

- 1) Enable and encourage children, including those with disabilities, to walk and bicycle to school;
- 2) Make bicycling and walking to school a safer and more appealing transportation option, thereby encouraging a healthy and active lifestyle from an early age; and
- 3) Facilitate the planning, development, and implementation of projects and activities that will improve safety and reduce traffic, fuel consumption, and air pollution in the vicinity of schools<sup>2</sup>.

### ***The Federal Safe Routes to School Program<sup>2</sup>***

The Federal Safe Routes to School Program was established in the 2005 Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU). It is a federally-funded reimbursement program providing communities with the opportunity to improve conditions for bicycling and walking to school. Section 1404 of SAFETEA-LU mandates that the North Carolina Department of Transportation (NCDOT) administer this program within the state, providing financial assistance to state, local, and regional agencies, and non-profit organizations that demonstrate an ability to meet the requirements of the program. The program provides funds for infrastructure improvements and non-infrastructure educational and encouragement activities for schools serving grades K-8. Infrastructure improvements must occur within a two-mile radius of the school<sup>2</sup>. This distance is considered reasonable for a child to bicycle to and from school each day.

### ***The NC Safe Routes to School Program***

The North Carolina Department of Transportation's Division of Bicycle and Pedestrian Transportation has a long history of promoting active travel to and around schools. The Division continues to work with numerous communities across the state to develop pedestrian and bicycle plans, which is often the first step in improving non-motorized transportation infrastructure within a municipality. The Division provides a number of other services, including safety education, bicycle use training, crossing guard training, and helmet promotions throughout the state, as well as design support to other NCDOT units.

The NCDOT first identified safe travel to school as a safety priority in 2000. In 2005, it established the North Carolina Safe Routes to School (SRTS) Program to coordinate with the federal program. It works with schools, local governments and agencies, advocacy and non-profit organizations, and public health professionals at a grassroots level to identify improvements that can help make bicycling and walking to and from school a safe and healthy transportation alternative.

The Town of Carrboro is one of the first communities to develop an official SRTS Action Plan in the State of North Carolina. While infrastructure improvement is a key recommendation, education and encouragement programs are also critical to change a community's habit of driving children to school. Parents are persuaded by the actions of others. If other children in their neighborhood are walking or bicycling, they are more likely to let their children do so as well.

**"Motor vehicle crashes are the leading cause of death for children from 2 to 14 years old." (Source: National Highway Traffic Safety Administration<sup>3</sup>)**

### ***Why Safe Routes to School Matters***

Nationally, fewer than 15% of children walk or bicycle to school. Nearly half of all school-aged children are driven to school<sup>4</sup> by their parents. This contrasts sharply with the statistical picture of 40 years ago. In 1969, 42% of all school-aged children walked or bicycled to school. In fact, almost 90% of kids living within one mile of their school walked or bicycled<sup>5</sup>. This decline in active travel coincides with a three-fold rise in childhood obesity and an alarming increase in adult onset diabetes - among children. A 2008 analysis by the U.S. Centers for Disease Control and Prevention shows that the South has the worst record of any U.S. region in active travel to school, with only 36% of children living within a mile of school walking or bicycling at least one day each week<sup>6</sup>. Only about half of North Carolina's schoolchildren are getting the recommended amount of physical activity, at least one hour most days, preferably everyday<sup>7</sup>.

In addition to health concerns, the increase in the number of children being driven to school by their parents directly affects traffic congestion. Studies by the National Highway Traffic Safety Administration (NHTSA) show that school-related traffic accounts for 20 to 25% of all morning peak hour traffic<sup>8</sup>. By reducing the number of parents driving children to school, we can relieve morning peak hour delays and congestion. Reducing congestion around a school will improve the air quality. Although pollutants from congestion do not cause asthma, it can be a factor

in triggering attacks. A study performed in Atlanta, Georgia during the 1996 Summer Olympics showed a direct link between asthma and air quality. During the 17 days of the games, the City increased public transportation and limited the use of private vehicles in the downtown area, reducing morning traffic by 23% and peak ozone amounts by 28%. During this same time, there was a 42% decrease in asthma related hospitalizations, emergency room visits, and urgent care visits when compared to the 4 weeks before and after the Summer Games<sup>8</sup>. Asthma accounts for over 14 million missed school days each year (approximately 4 days per year per student with asthma)<sup>9</sup>. Therefore, improving the air quality around schools can improve student attendance rates.

Overall, there are several significant benefits to providing exercise for children: weight control, healthy bones, and fighting disease. Additionally, children who exercise regularly tend to sleep better at night and feel more rested for school. Starting good habits at an early age and benefit a lifetime.

Research has shown that the most successful way to increase bicycling and walking is through a comprehensive approach that includes the "Five E's": education, encouragement, engineering, enforcement,

and evaluation. Local SRTS programs can address these topics by following a comprehensive strategy that focuses on infrastructure improvements where the physical environment is not conducive to walking or bicycling, and promoting non-infrastructure programs, including education, encouragement and enforcement strategies.

## 1.1 SCHOOL DESCRIPTIONS

**Carrboro Elementary** serves Pre-K through 5th grade and is located in a well-established neighborhood, just north of the Downtown Carrboro core. It serves over 550 children of which approximately 60 walk or bicycle to school. About 21% of its students live within two miles of the school.



*A bicycle outside the entrance of Carrboro Elementary.*

Carrboro Elementary Enrollment Data and School Characteristics	
Grades Served	PreK - 5
Total Enrollment	553 (48 in PreK)
Number of Students Living Within 2 Miles	117
% of Students Living Within 2 Miles	21%
Number of Buses	6
Number of Students Riding Buses	185 (33%)
Number of Students Walking	40 (7%)
Number of Students Bicycling	20 (4%)
Number of Students Driven	308 (56%)
Special Needs Population	No
Land Uses Surrounding School	Mostly Residential
"No transport" or "walk" zones	Yes (2 miles)
Crossing Guards	Yes (5 locations)
Policies that Restrict Walking or Bicycling	No
Existing Safety Patrol Program	No
Bicycle Safety Taught to Students	Yes



**McDougle Elementary** serves grades K-5 and is located in the north Carrboro, near the Old Fayetteville Road/Hillsborough Road intersection. It is found adjoining established single-family neighborhoods and rural lands to the north. It serves 570 children of which approximately 140 (with permission) walk or bicycle to school.

McDougle Elementary Enrollment Data and School Characteristics	
Grades Serviced	K – 5
Total Enrollment	570
Number of Students Living Within 2 Miles	Unknown
% of Students Living Within 2 Miles	Unknown
Number of Buses	7
Number of Students Riding Buses	131 (23%)
Number of Students Walking	80 (with permission) (14%)
Number of Students Bicycling	60 (with permission) (11%)
Number of Students Driven	299 (52%)
Special Needs Population	17
Land Uses Surrounding School	Mostly Residential
“No transport” or “walk” zones	Yes (1 mile)
Crossing Guards	Yes (2 locations)
Policies that Restrict Walking or Bicycling	No
Existing Safety Patrol Program	Yes
Bicycle Safety Taught to Students	Yes



*Parents and students at McDougle Elementary.*

## 1.2 PLANNING PROCESS

This planning process began with a 'kick-off' meeting in November 2009, which included a visioning and exercise and map working session with the project staff, steering committee, and Consultants. This meeting was followed by comprehensive fieldwork and a public workshop that sought input from residents, including parents, teachers, principals, children, and Town staff. This input and analysis led to the development of a draft plan that consisted of an analysis of existing conditions, and recommendations in the areas of engineering, education, encouragement, enforcement, and evaluation. The plan communicates the current conditions for walking and bicycling around McDougale Elementary and Carrboro Elementary, recommends improvements, and outlines strategies to carry out those recommendations. The steering committee, Town staff, and NCDOT met with the Consultants for a draft plan review in which comments were provided. The final plan is an action-oriented document that will guide the Town of Carrboro and both schools in making it safer to walk and bicycle to school and to encourage more children and families to walk and bicycle to school.

## 1.3 VISION AND GOALS

The following five-year vision and goal statements were developed out of the Town's original SRTS planning grant application and from committee members and the general public during the planning process. These statements guided the development of this Plan:

- Increase the percentage of children walking and bicycling to school to 25% by year 2015.
- Expand walk zones so that less people ride the bus and more people walk or bicycle to school.
- Implement incentive programs for participating kids.
- Relieve parent's fears about walking and bicycling.
- Create a culture that encourages walking.
- Reduce vehicular miles traveled.
- Calm traffic and enforce traffic laws.

- Develop encouragement / incentive programs that will include all children (including the ones that cannot walk or bicycle to school).
- Develop new greenways.
- Educate parents and children on the benefits of walking and bicycling.
- Incorporate pedestrian and bicycle safety in PE classes.
- Increase school board participation and support.
- Incorporate/consider SRTS guidelines in new site selection.
- Provide greater connectivity between neighborhoods and schools.
- Develop guidelines and set priorities for actual projects that will encourage and increase walkers (will require DOT support).
- Conduct neighborhood education and support initiatives to address current opposition.
- Develop programs for working parents.
- Involve/develop collaboration with local businesses and agencies for park and walk locations and sponsorships.
- Have bi-lingual education and encouragement plans.
- Create and maintain evaluation and monitoring sub-groups such as a Safe Routes to School advocacy group that would champion this plan and evaluate its progress.

## 1.4 SRTS ACTION PLAN FRAMEWORK

The Town of Carrboro SRTS Action Plan was developed with a comprehensive, framework approach addressing all 5 E's of the SRTS program (engineering, education, encouragement, enforcement, and evaluation). Recommendations and priorities are developed for all 5 E's. They are talked about more in-depth on the following page.

## The 5 E's of Safe Routes to School

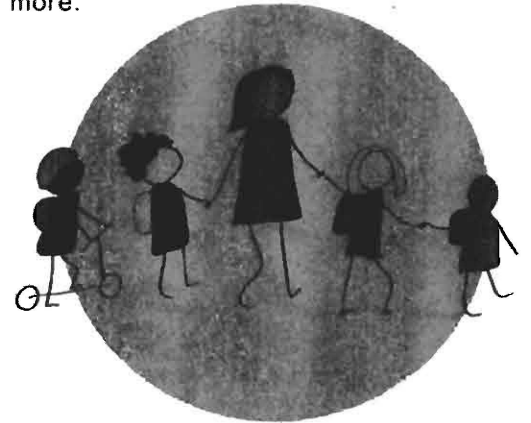


### ENGINEERING

Engineering strategies can enable more bicycling and walking and also make these activities safer. Engineering can include: improving & installing sidewalks, crosswalks, signage, traffic signals and more.

### ENCOURAGEMENT

Encouragement strategies are about having fun — they can provide ways for parents and children to discover that walking and bicycling are do-able and a lot of fun! Special events and contests can get kids excited to be a part of SRTS!

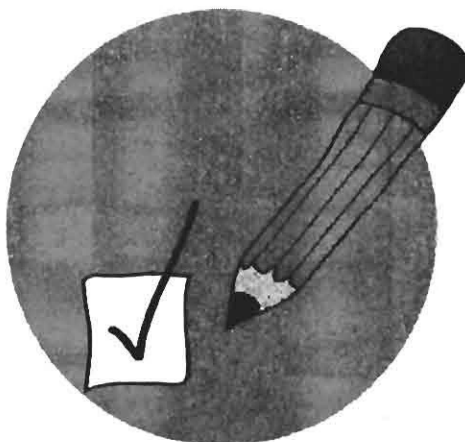
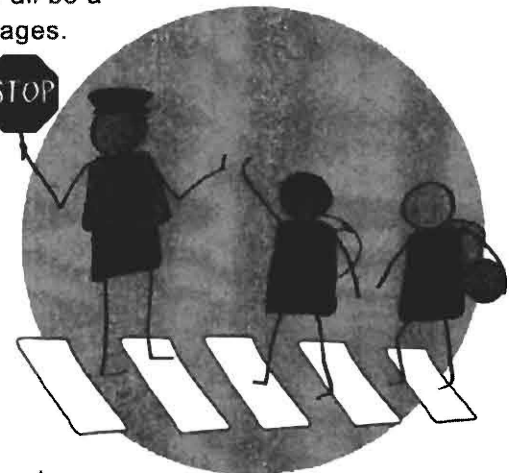


### EDUCATION

Education activities teach pedestrian, bicycle and traffic safety, as well as create awareness of the benefits and goals of SRTS. Lessons can be incorporated into classroom activities or special events to teach skills. Parents, teachers, drivers and neighbors can all be a potential audience for SRTS's messages.

### ENFORCEMENT

Enforcement through the SRTS program should involve a network of community members working together to ensure safe walking, bicycling and driving. It helps deter unsafe behaviors of drivers, pedestrians and bicyclists.



### EVALUATION

Evaluation is about identifying issues, improving activities and understanding results. It is an important component of any SRTS program because it is used to determine if the goals of the strategies are being met and to assure that successful efforts are being recognized.

**Footnotes**

1. National Center for Safe Routes to School. History of Safe Routes to School. Available: [http://www.saferoutesinfo.org/guide/introduction/history\\_of\\_srts.cfm](http://www.saferoutesinfo.org/guide/introduction/history_of_srts.cfm) Accessed: December 14, 2010.
2. FHWA – SAFETEA-LU Section: 1101(a)(17), 1404. 2005. Fact Sheets on Highway Provisions: Safe Routes to School. Available: <http://www.fhwa.dot.gov/safetealu/factsheets/saferoutes.htm>. Accessed: December 14, 2010.
3. National Highway Traffic Safety Administration. Traffic Safety Facts: 2006 Data. Available: <http://www-nrd.nhtsa.dot.gov/pubs/810803.pdf>. Accessed: December 14, 2010
4. U.S. Department of Transportation. (1995). Nationwide Personal Transportation Survey.
5. National Center for Safe Routes to School. The Decline of Walking and Bicycling. Available: [http://www.saferoutesinfo.org/guide/introduction/the\\_decline\\_of\\_walking\\_and\\_bicycling.cfm](http://www.saferoutesinfo.org/guide/introduction/the_decline_of_walking_and_bicycling.cfm) Accessed: December 14, 2010.
6. Centers for Disease Control and Prevention. Investment in Safe Routes to School Projects: Public Health Benefits for the Larger Community. Available: [http://www.cdc.gov/pcd/issues/2008/jul/07\\_0087.htm?s\\_cid=pcd53a90\\_e](http://www.cdc.gov/pcd/issues/2008/jul/07_0087.htm?s_cid=pcd53a90_e). Accessed : December 14, 2010
7. North Carolina Public Health/Public Schools of North Carolina/NC State University Cooperative Extension. Choose to Move More Every Day. Available: [http://www.ces.ncsu.edu/depts/fcs/pdfs/ChooseToMove\\_School\\_Age.pdf](http://www.ces.ncsu.edu/depts/fcs/pdfs/ChooseToMove_School_Age.pdf). Accessed: December 14, 2010-12-14
8. Friedman M, Powell K, Hutwagner L, Graham L, Teague G Impact of Changes in Transportation and Commuting Behaviors During the 1996 Summer Olympic Games in Atlanta on Air Quality and Childhood Asthma. Journal of the American Medical Association. 2001 February 285(7):897-905.
9. National Center for Safe Routes to School. Health Risks. Available: [http://www.saferoutesinfo.org/guide/introduction/health\\_risks.cfm](http://www.saferoutesinfo.org/guide/introduction/health_risks.cfm). Accessed: December 14, 2010.

**Table 3.2: Recommended McDougle Elementary Corridor Projects**

Improvement Type	Description	Length	Cost
New Sidewalk	Add sidewalk along west side of Hillsborough Road from Old Fayetteville Road to Main Street	6,200 LF	
New Multi-use Path	Horne Hollow road/path from existing bicycle path near Autumn Drive to Hillsborough Road	1,200 LF	
Repair pathway	Repair pavement of Quail Roost Drive path to McDougle Elementary		

### 3.4 MCDOUGLE ELEMENTARY

The following section outlines specific recommendations for each project type. Short-term or high priority projects are identified and further discussed in Section 3.5.

Table 3.2 describes the recommended corridor projects for McDougle Elementary School

#### 1. Hillsborough Road/School Entrance

- Add sidewalk on west side of Hillsborough Road.
- Restripe existing high visibility marked crosswalk (fading).
- Add median refuge island.
- Add in-roadway pedestrian sign.
- Maintain a crossing guard at this location (large numbers of pedestrians cross here every day).

#### 2. Greensboro Street/Hillsborough Road

- Add sidewalk on west side of Hillsborough Road.
- Stripe new high visibility crosswalk markings across Hillsborough Road with advanced stop lines.
- Reconstruct curb ramps.
- Expand to full pedestrian median refuge island for crossing Hillsborough Road.
- Add curb extensions on north corner of intersection (reducing turning radius).
- If stoplight is installed in future, add countdown signal heads for crossing Greensboro Street.
- Maintain a crossing guard at this location (large numbers of pedestrians cross here every day).

#### 3. Hillsborough Road/James Street

- Add sidewalk on west side of Hillsborough Road.
- Stripe new high visibility crosswalk markings across Hillsborough Road; and across James Street with advanced stop lines. Restripe existing marked crosswalks to make highly visible.
- Add curb extensions with curb ramps on NW side of intersection.
- Consider adding a crossing guard to this location (With the Quail Roost cut-through path, this is a popular place to cross Hillsborough Road).
- Consider pedestrian warning signs or in-roadway pedestrian signs.

#### 4. Hillsborough Road/Parkview Avenue

- Stripe high visibility crosswalks across Parkview Avenue with advanced stop lines for Parkview traffic.
- Add curb extensions on north corner.
- Add marked crosswalks to maintain sidewalk facility on Hillsborough Road for all intersecting roads.

#### 5. Old Fayetteville Road/School Entrance

- Stripe new high visibility crosswalk markings across school entrance road with advanced stop lines for leaving traffic.
- Reconstruct curb ramps.
- Maintain a police officer or crossing guard at this location.

#### 6. Hillsborough Road/Old Fayetteville Road

- Add sidewalk on west side of Hillsborough Road.

## 3

- Restripe existing marked crosswalk to make highly visible.
- Reconstruct curb ramps.
- Provide median refuge island for long crossing of Hillsborough Road.
- Provide high visibility pedestrian warning signs.
- Consider adding a crossing guard to this location if pedestrian traffic is significant.

- Provide curb extensions at locations of wide curb radii and long pedestrian crossing distances such as Hillsborough/Greensboro and James/Hillsborough intersections.



*Existing crosswalks on-campus are painted onto the roadway and are fading (above). Installing high visibility thermoplastic crosswalks, as shown below in the photo rendering, will make these crossing areas safer for schoolchildren.*



- Extend school zone on Hillsborough Road from Old Fayetteville Road to James Street.
- Provide median refuge islands at Hillsborough Road school entrance midblock crossing, Greensboro/Hillsborough intersection, Hillsborough/James intersection, and Hillsborough/Old Fayetteville intersection.
- Slow traffic through speed tables or chicanes on Pathway Drive.

- Enhance and stage bicycle rack area near Hillsborough Road. Currently, this is situated in a muddy area. A covered shelter should be added above the bicycle rack area, as well as a concrete pad underneath the bicycle racks (see photo renderings below).



*Current bicycle parking is in a muddy area and lacks shelter (above) Adding pavement under all of the bicycle racks and covering the entire area would greatly enhance bicycle parking, as shown in this photo rendering (below).*



- Add additional bicycle racks near Hillsborough Road entrance.
- Restripe on-campus crosswalks as they are faded (see photo renderings below).
- Extend covered walkway out to Hillsborough Road.

- Keep bicycle lanes swept along Hillsborough Road.
- Improve all curb ramps to follow ADA compliance.
- Add flashing light in advance of James Street/Hillsborough Road traffic coming from the south.

### **Long-term Improvements**

#### **1. Old Fayetteville Road/NC 54 intersection**

- Significant improvements are needed that include intersection reconfiguration, sidewalk, countdown signals, median refuge islands, and marked crosswalks.

#### **2. Main Street/James Street intersection**

- Because an apartment complex resides south of Main Street at James Street, there may be students needing to cross here. Currently, this is not a signalized intersection so further study is warranted. Improvements might include a marked crosswalk, refuge island, flashing lights, and a crossing guard.

#### **3. NC 54 sidewalk**

- Sidewalk is needed along NC 54.

#### **4. Old NC 86 (to Dairyland Road)**

- Install sidepath on east side of Old 86 (see Carrboro Bicycle Plan).



*Providing pedestrian connections along Old 86 is an important goal to meet the needs of Carrboro residents in the future.*

### 3.6 CARRBORO ELEMENTARY

Table 3.3 describes the recommended corridor projects for Carrboro Elementary School.

**Table 3.3: Recommended Carrboro Elementary Corridor Projects**

Improvement Type	Description	Length	Cost
New Sidewalk	Construct sidewalk on Pine Street from North Greensboro Street to Hillsborough Road	1 675 Ft	
Greenway/Crossing	Provide a lighted multi use path / trail from Estes Apartments to Pleasant Drive	Approx 250 Ft	
Greenway/Crossing	Provide a path / trail from Pine Street to Carrboro Elementary School Property	Approx 450 Ft	
Greenway/Crossing	Provide a path / trail from Todd Street to Carrboro Elementary School Property	Approx 300 Ft	
New Sidewalk	Construct sidewalk on the north side of West Main Street from Pine Hill Drive to Hillsborough Road	4000 Ft	
New Sidewalk	Construct sidewalk on the south side of West Main Street from Poplar Avenue to Fidelity Street	425 Ft	
New Sidewalk	Construct sidewalk on Davie Road from West Poplar Avenue to West Main Street	850 Ft	
New Sidewalk	Construct sidewalk on the west side of Hillsborough Road from Simpson Street to West Main Street	3900 Ft	



*New sidewalk on Pine Street, shown above, is on the recommended corridor project list.*

#### **1. Shelton Street / Hillsborough Road / Main Street**

- Re-mark all existing crosswalks with high visibility crosswalks.
- Install in-roadway pedestrian signage.
- Install an advance stop bar in front of the crosswalk on Hillsborough Road.
- Add a pedestrian signal across Main Street.

#### **2. Shelton Street / Greensboro Street**

- Extend the 20 miles per hour (mph) speed limit zone further north on Greensboro Street. It currently changes to 20 mph going southbound at the crosswalk.



- Install pedestrian-activated warning beacon, such as a Rectangular Rapid Flashing Beacon or in-street pedestrian lighting at the crosswalk

### **3. Greensboro Street / Estes Drive / Frances Lloyd Shetley Greenway**

- Re-mark all existing crosswalks with high visibility crosswalks.

### **4. Poplar Avenue / Main Street**

- Construct sidewalk on Main Street to fill in existing gaps.
- Provide high visibility crosswalks parallel to Main Street.
- Construct islands to reduce crossing distances and reduce speeds.

### **5. Oak Avenue / Greensboro Street**

- Provide high visibility crosswalks parallel to Main Street.
- Construct an island on the Oak Avenue approach where there is a painted island to reduce crossing distances and reduce speeds.

- Install speed bumps or other appropriate traffic calming measures on Oak Avenue and Lindsay Street to deter reported speeding issues.



*Speed bumps or other appropriate traffic calming measures on Oak Avenue would deter speeding issues. Also this intersection with Greensboro Street is need of high visibility crosswalks.*

- Provide covered bicycle rack areas.
- Carpool riders coming from the east side of Shelton Street could drop students off at the entrance to the greenway and let them walk to the school from that location. A teacher or parent volunteer could monitor activities on the greenway during drop off times. This way, the students do not have to walk through the vehicular conflicts that occur at the Shelton Street / Ashe Street / Bus Loop intersection. Drivers can take a left on Elm Street; thereby, not having to pass through campus to exit. This alternative provides a safer entrance for the children and less congestion around the school.

- Fill in missing gaps in sidewalk on Shelton Street and Main Street.
- Improve all curb ramps to follow ADA compliance.
- Ensure that regular maintenance is scheduled to cut back trees and bushes so that appropriate sight distance is provided. This issue was observed primarily in the street network located just southeast of the school.
- Ensure that greenways are kept free of trash.
- Provide an additional crossing guard at the Shelton Street / Greensboro Street intersection.

- Provide sidewalks on Estes Drive from the Estes Park Apartments to Greensboro Street (approximately 1900 feet).
- Construct additional pedestrian facilities as needed by the Town of Carrboro
- Conduct study to determine location(s) for mid-block crossings along Greensboro Street between Hillsborough Road and Estes Drive.

Task	Lead Agency	Support	Details	Phase
<b>Complete Priority Projects</b>	Town of Carrboro	NCDOT	The priority cutsheets of SRTS engineering facility development includes the most important projects to improve connectivity and safety. Immediate attention to priority projects will have an immediate impact on walking conditions in and around the schools. First phase work that can be done at a low cost should be conducted first. All project cutsheets are found in Chapter 3.	Short-Medium Term (2011-2013)
<b>Identify and Secure Specific Infrastructure Funding Sources for Project Implementation</b>	Town of Carrboro, SRTS Committee	Chapel Hill-Carrboro City Schools, PTA/PTO, Durham-Chapel Hill-Carrboro MPO, and NCDOT	Having an adopted SRTS Action Plan in place will help when seeking funding for infrastructure implementation (through grants or state programs). Appendix C contains funding opportunities. The Town of Carrboro should also remain updated with the changing funding landscape. Stimulus funding and the transportation bill reauthorization are forthcoming at the time of this study.	Short Term (2011-2012) and continuous
<b>Identify and Secure Specific Non-infrastructure Funding Sources for Project Implementation</b>	Town of Carrboro, SRTS Committee	Chapel Hill-Carrboro City Schools, PTA/PTO, Durham-Chapel Hill-Carrboro MPO, and NCDOT	Having an adopted SRTS Action Plan in place will help when seeking funding for non-infrastructure implementation (through grants or state programs). Appendix C contains funding opportunities. The Town of Carrboro should also remain updated with the changing funding landscape.	Short Term (2011-2012) and continuous
<b>Develop a Long Term Funding Strategy</b>	Town of Carrboro, SRTS Committee	Chapel Hill-Carrboro City Schools, PTA/PTO, Durham-Chapel Hill-Carrboro MPO, and NCDOT	To allow continued development of the overall system, capital funds for bicycle and pedestrian facility construction should be set aside every year, even if only for a small amount (small amounts of local funding can be matched to outside funding sources). Funding for an ongoing maintenance program should also be included in the Town operating budget. Also, projects recommended in this Plan could be requested as additions to the state TIP (Transportation Improvement Program) list. Finally, federal legislation and funding should be monitored as a new transportation bill is likely in the near future.	Short Term (2011-2012) and continuous

Task	Lead Agency	Support	Details	Phase
<b>Improve and Enforce School District Regulations</b>	Chapel Hill-Carrboro City Schools	Chapel Hill-Carrboro City Schools, SRTS Committee, NCDOT	Policy recommendations suggested in Chapter 4 address a number of policies including busing and school siting that have a tremendous impact on the encouragement/discouragement of walking/bicycling to school. These policy recommendations should be discussed and considered by Town staff, school system staff, and the SRTS Committee. In many cases, policies should not be enforced until adequate and safe sidewalk and crosswalk infrastructure is provided.	Short Term (2011-2012)
<b>Present this Plan to other local agencies and groups</b>	Town of Carrboro, SRTS Committee	Chapel Hill-Carrboro City Schools	Presenting this plan to other local groups and agencies will help build community awareness and support for ongoing efforts. Possible groups to receive a presentation might include: the MPO, local bicycle store owners, regional transportation planners, health clubs and fitness facilities, the health department, schools and youth organizations, major employers, large neighborhood groups, etc.	Short Term (2011-2012) and continuous
<b>Maintain contact and relationship with NCDOT Division 7</b>	Town of Carrboro, NCDOT	SRTS Committee, Chapel Hill-Carrboro City Schools	Many bicycle and pedestrian engineering recommendations in this Plan are on state-owned roadways. It will be essential to stay informed about upcoming, planned NCDOT resurfacing and reconstruction projects. These are opportunities to make pedestrian enhancements around the schools. It will also be critical to keep NCDOT informed about priority projects for improvement in this Action Plan. Having an NCDOT Division representative on the SRTS Committee will be essential.	Short Term (2011-2012) and continuous
<b>Ensure recommendations from this Plan become part of regional Comprehensive Transportation Plan (CTP) or Long Range Transportation Plan (LRTP)</b>	Town of Carrboro, Durham-Chapel Hill-Carrboro MPO	SRTS Committee, NCDOT	Comprehensive Transportation Plans and Long Range Transportation Plans are updated regularly. The recommendations from this Plan should be submitted for CTP/LRTP update so that they are officially recognized by the region and State.	Short-Medium Term (2011-2014)

Task	Lead Agency	Support	Details	Phase
Education Program Priority #1	Chapel Hill-Carrboro City Schools (and local schools)	SRTS Committee, Town of Carrboro, Active parents and citizens	Integrate bicycle/pedestrian education into the school day. For details, see Chapter 5.	Short Term (2011-2012) and continuous
Education Program Priority #2	Town of Carrboro (Planning, Parks and Recreation, and Police), Chapel Hill-Carrboro City Schools	SRTS Committee, Local media, Local businesses	Start a comprehensive motorist/pedestrian/bicyclist safety campaign. For details, see Chapter 5.	Short Term (2011-2012) and continuous
Encouragement Program Priority #1	Chapel Hill-Carrboro City Schools (and local schools), Active parents and citizens, SRTS Committee	Town of Carrboro	Expand walking school bus programs. For details, see Chapter 5.	Short Term (2011-2012) and continuous
Encouragement Program Priority #2	Chapel Hill-Carrboro City Schools (and local schools)	Active parents and citizens, SRTS Committee, Local businesses	Begin mileage club/contests. For details, see Chapter 5.	Short Term (2011-2012) and continuous
Enforcement Program Priority #1	Town of Carrboro/Orange County (Police), Active citizens	NCDOT, SRTS Committee	Expand crossing guard program for all schools. For details, see Chapter 5.	Short Term (2011-2012) and continuous

Task	Lead Agency	Support	Details	Phase
<b>Enforcement Program Priority #2</b>	Town of Carrboro/Orange County (Police)	Chapel Hill-Carrboro City Schools (and local schools)	Involve local law enforcement officers and techniques. For details, see Chapter 5.	Short Term (2011-2012) and continuous
<b>Be open to creative solutions.</b>	Town of Carrboro	SRTS Committee, Chapel Hill-Carrboro City Schools, NCDOT, Durham-Chapel Hill-Carrboro MPO	In many cases, the most ideal pedestrian scenario (such as a complete street of bicycle lanes and sidewalks) will not be achievable because of ROW issues, homeowners issues, etc. Consider alternative, creative means such as traffic calming techniques (speed humps, chicanes, bulb-outs, and speed limit reductions).	Continuous/Ongoing
<b>Enforce improper motorist, bicyclist, and pedestrian behavior around schools.</b>	Town of Carrboro Police Department	SRTS Committee, Chapel Hill-Carrboro City Schools	Enforcement should be increased on motorist speed limits, use of bicycle helmets for children, and proper use of crosswalks by pedestrians through education, warnings, and if necessary, tickets.	Short Term (2011-2012) and continuous
<b>Use Updated AASHTO Bicycle and Pedestrian Design Guides</b>	Town of Carrboro	NCDOT	Adopting and implementing the Design Guidelines (Appendix D) is integral for the development of high-standard pedestrian and bicycle facilities. It will also be important to obtain new published AASHTO bicycle and pedestrian guidelines when published in 2010-2013. The updated bicycle guidelines are expected in 2010, while pedestrian guidelines will come 1-2 years later. Consider utilization of these new guidelines for facilities recommended in this Plan.	Short-Medium Term (2011-2015)
<b>Update priority engineering projects every 1-2 years and work to complete all projects in the recommended network of this Action Plan.</b>	SRTS Committee, Town of Carrboro	Chapel Hill-Carrboro City Schools, NCDOT	In 2012, reevaluate priorities based on what has been completed thus far by creating a new agenda of priority projects. Consider including priority projects that were not completed and consider updating certain aspects of the plan's design standards, programs, and policies based on innovations and new ideas since 2010.	Medium to Long Term (2012-2018)