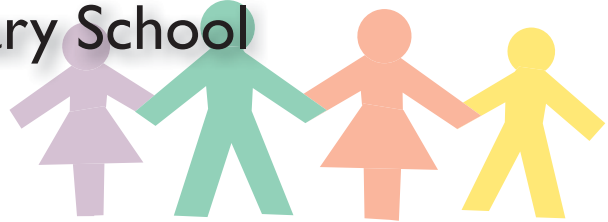


The Borough of Collingswood

Zane North Elementary School &
William P. Tatem Elementary School



School Travel Plan



June, 2014



**CROSS
COUNTY
CONNECTION**

TRANSPORTATION MANAGEMENT ASSOCIATION



**NEW JERSEY
Safe Routes to School**



Sponsored by the New Jersey Department of Transportation with funding from the Federal Highway Administration.

Zane North and William P. Tatem Elementary School Travel Plan

Prepared by:

**Cross County Connection
Transportation Management Association**

June 2014

Cross County Connection Transportation Management Association was formally incorporated in 1989 through efforts of a group of southern New Jersey business leaders, local government officials, and representatives from the New Jersey Department of Transportation and New Jersey Transit Corporation to address mobility issues in the region and reduce the number of vehicles on state and local roadways. Today, Cross County Connection is a non-profit organization partnering with the New Jersey Department of Transportation, New Jersey Transit, Federal Highway Administration and its members to provide solutions to complex transportation problems for counties, municipalities, employers and commuters in Atlantic, Burlington, Camden, Cape May, Cumberland, Gloucester and Salem Counties.

This Cross County Connection Transportation Management Association publication is funded by the New Jersey Department of Transportation through the U.S. Department of Transportation Federal Highway Administration. The Federal Government and the State of New Jersey assume no liability for the contents.



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CHAPTER 1: INTRODUCTION

The Borough of Collingswood is located less than ten miles east of Philadelphia and 35 miles southwest of Trenton, New Jersey's capital. The Borough is bordered by Haddonfield to the east, Pennsauken to the north, Camden City to the west, and Haddon Township to the south. Cooper River serves as the northern border to Collingswood.

The Collingswood Public School District serves students in pre-kindergarten through 12th grade. There are five elementary schools that serve students in grades pre-K through 5th grade. Collingswood Middle School serves students in grades 6th-8th, while Collingswood High School serves students in grades 9th-12th. The Collingswood School District recognizes the importance of active transportation to the health of children and the environmental health of their community. The Borough seeks to increase the number of children that walk or bike to school. To that end, and as part of the municipality's effort to create safe pedestrian corridors, improve the health of students and reduce traffic congestion around schools, the administration has chosen to develop a Safe Routes to School (SRTS) Travel Plan for Zane North and Tatem Elementary Schools.

Goals

The purpose of this travel plan is to recommend ways to increase the number of children walking to school through infrastructure improvements and programming at Zane North and William P. Tatem Elementary Schools. This effort's goals are consistent with the National Safe Routes to School Program (SRTS) goals of improving the health of schoolchildren through increased activity, increasing travel safety and reducing reliance on cars to get to school. The plan was created in partnership with municipal representatives and school district administrators from Collingswood. This Travel Plan incorporates the 5 E's of SRTS: Evaluation, Engineering, Education, Encouragement and Enforcement. These five categories provide the framework for the recommendations of the plan and help to identify actions that may encourage more students to safely walk to school. The goals of this Travel Plan are:

- To encourage more students to walk to and from school.
- To make it safer for children to walk to and from school.
- To improve the health of schoolchildren through increased physical activity.
- To establish healthy lifestyle habits among schoolchildren that will continue into the future.
- To reduce the negative environmental impact of automobile trips to schools especially the effects of vehicles idling in close proximity to children.

School Descriptions

Zane North Elementary is located on Stokes Avenue at Lees Avenue, three blocks south of Haddon Avenue (CR 561). William P. Tatem Elementary is located on Lincoln Avenue at Washington Avenue, three blocks north of Haddon Avenue. The two schools are seven blocks

from one another. Both schools are in urban residential areas approximately one mile east of US 130. Knight Park, a Borough recreation area that includes baseball and soccer fields, and a playground, is located approximately one half of a mile northwest of Zane North Elementary and less than one mile southwest of William P. Tatem Elementary, as shown in Map 1.

Collingswood Public School District is a walking district. The Borough's relatively compact grid layout, shown in Map 1, is conducive to children walking and biking to school, assuming travel areas are safe and convenient. However, Collingswood School District does not allow students to bicycle to and from school. Much of the city's residential development is single-family detached housing with pockets of apartment complexes and multifamily family dwelling units (duplexes). Commercial land uses are located on Haddon Avenue.

The three major street corridors in Collingswood are Haddon Avenue, the Borough's "main street," shown in Figure 1, Collings Avenue and Cuthbert Boulevard. In 2012, the average annual daily traffic (AADT) for Haddon Avenue and Collings Avenue was over 11,000 vehicles, while Cuthbert Boulevard experienced average annual daily traffic of approximately 22,000 vehicles. Atlantic Avenue and Park Avenue are other significant corridors that are traveled by over 1,900 and 2,200 vehicles per day, respectively. The Port Authority Transit Corporation (PATCO) commuter rail line runs through Collingswood, traveling east to west from Lindenwold, New Jersey to Philadelphia, Pennsylvania; the Collingswood station is located on Haddon Avenue, and is easily accessible to a number of residents.



Figure 1: Haddon Avenue

Approximately 14.2% of children under 18 years, and 10% of the 13,924 residents in Collingswood are living in poverty.¹ Roughly 19% of students from Tatem Elementary School and 12% of students from Zane North Elementary qualify for the free or reduced lunch program. Studies show that there is a direct correlation between childhood obesity and poverty rates², which makes walking to school important as both an equitable and healthy transportation option. The health and well-being of all students is important to Collingswood School District officials, therefore the district hopes to combat obesity rates through the administration of their SRTS program.

¹ U.S. Census Bureau, American Community Survey 2008-2012, Poverty Status in the Past 12 Months, accessed on 6/11/2014, http://factfinder2.census.gov/rest/dnldController/deliver?_ts=420538522279

² Adam Drewnowski and SE Specter, "Poverty and obesity: the role of energy density and energy costs" (2001), The American Journal of Clinical Nutrition, accessed on 1/28/2014, <http://www.ajcn.org/content/79/1/6.full>.

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Working Group

Table 1: Zane North and William P. Tatem Elementary Schools' SRTS Working Group

Organization	Role	Contact
Cross County Connection TMA	SRTS Program Assistance	David Calderetti, SRTS Coordinator calderetti@driveless.com & Sean Schweitzer, Research Assistant; Schweitzer@driveless.com
The Borough of Collingswood	Implementation	Cass Duffey, Director of Community Development Cduffey@collingswood.com
William P. Tatem Elementary School	SRTS Champion	Jennifer McPartland, Elementary Supervisor of Instruction Jmcpartland@collsk12.org
Zane North Elementary School	SRTS Champion	Thomas Santo, Principal TSanto@collsk12.org
Collingswood Police Department	Enforcement	Sgt. Kevin Carey, School Liaison (856) 854-1901

This Travel Plan was developed by Cross County Connection in partnership with the SRTS Working Group members listed above. Cass Duffey was the primary contact for the plan and coordinated input from the Collingswood School District and the Borough.

Walking audits were held on 6/12/2014 and 6/16/2014 to assess walking conditions and document areas in need of improvement. The study area encompassed a half mile radius around Tatem and Zane North Elementary Schools. Sergeant Kevin Carey and Cass Duffey participated in the first audit, which was held in damp weather from 10:00a.m. to 2:30p.m. with a temperature of approximately 70 degrees. The second audit was conducted from 3:00p.m. to 4:30p.m. in dry conditions with a temperature of approximately 80 degrees. Student dismissal was observed at Tatem Elementary during the second audit.

CHAPTER 2: EXISTING CONDITIONS

Policies and Practices

At the beginning of each school year, students attending Collingswood public schools and their parents are issued a handbook outlining school transportation policies. The handbook is available online by visiting the Collingswood School District website. Collingswood is a walking district with the exception of students participating in special education programs or those with disabilities. These students are provided bus services. Students are not currently permitted to bike to school. Collingswood provides crossing guards at the following intersections that are within the study area:

- Washington Avenue at Lincoln Avenue
- Haddon Avenue and Lees Avenue
- Lees Avenue and Stokes Avenue

All students in grades 1st-5th start their school day at 8:15 a.m. Students are dismissed from school at 3:00 p.m. Announcements are made at the end of the day to alert teachers to begin dismissal.

Walkers

Approximately 91% of all students from Tatem Elementary School and Zane North Elementary School are walkers. Walkers exit each school from various entry ways depending on their grade. Supervision is provided at exit doors to ensure students will leave in a safe, orderly manner and that visitors do not enter the building. Parents who are picking up their children may wait on the sidewalk in front of each school. Kindergarten students are escorted by their teacher to meet their parents at designated kindergarten pick up zones. Any kindergartner who has not been picked up by a parent will be brought to the main office. Parents may write a note indicating that their child will walk home with a sibling or another student from their respective school.

Bus Riders

Students who ride the bus are escorted to the bus by their classroom teacher or instructional assistant.

Escort Dismissal

Students whose parents have requested an escort are brought to the office by a staff member to await pick up by a parent or designated guardian.

Travel Mode

Student travel tallies were conducted by teachers at Tatem and Zane North Elementary Schools in the spring of 2014 over a week's time. Students are expected to arrive at 8:15 a.m. and are dismissed at 3:00 p.m. Travel mode results are shown in Table 2.

Table 2: Student Population: Travel Mode

	William P. Tatem Elementary School		Zane North Elementary School	
Location	801 Stokes Avenue		265 Lincoln Avenue	
Student Population	211		185	
that walks	110	52.1%	89	48.1%
that are bused	16	7.6%	20	10.8%
that get driven	85	40.3%	76	41.1%

Out of 396 total students that attend both schools, approximately 40% are driven to school. The results of the student travel tally are indicative of the vehicle congestion that can be observed at student arrival and dismissal times.

Bicycle Facilities

The bikeway network in Collingswood consists of two major facilities: the Cooper River Park off-road bicycle path that extends along the Cooper River on South Park Drive and North Park Drive, as shown in Figure 2; and the Newton Lake off-road bike path. Portions of each lay within the study area as shown in Map 2.

Currently there are no bikeways that connect to either elementary school. As stated earlier, the Collingswood School District does not allow students to bicycle to and from school, which may be due in part to the lack of bicycle facilities in the study area.

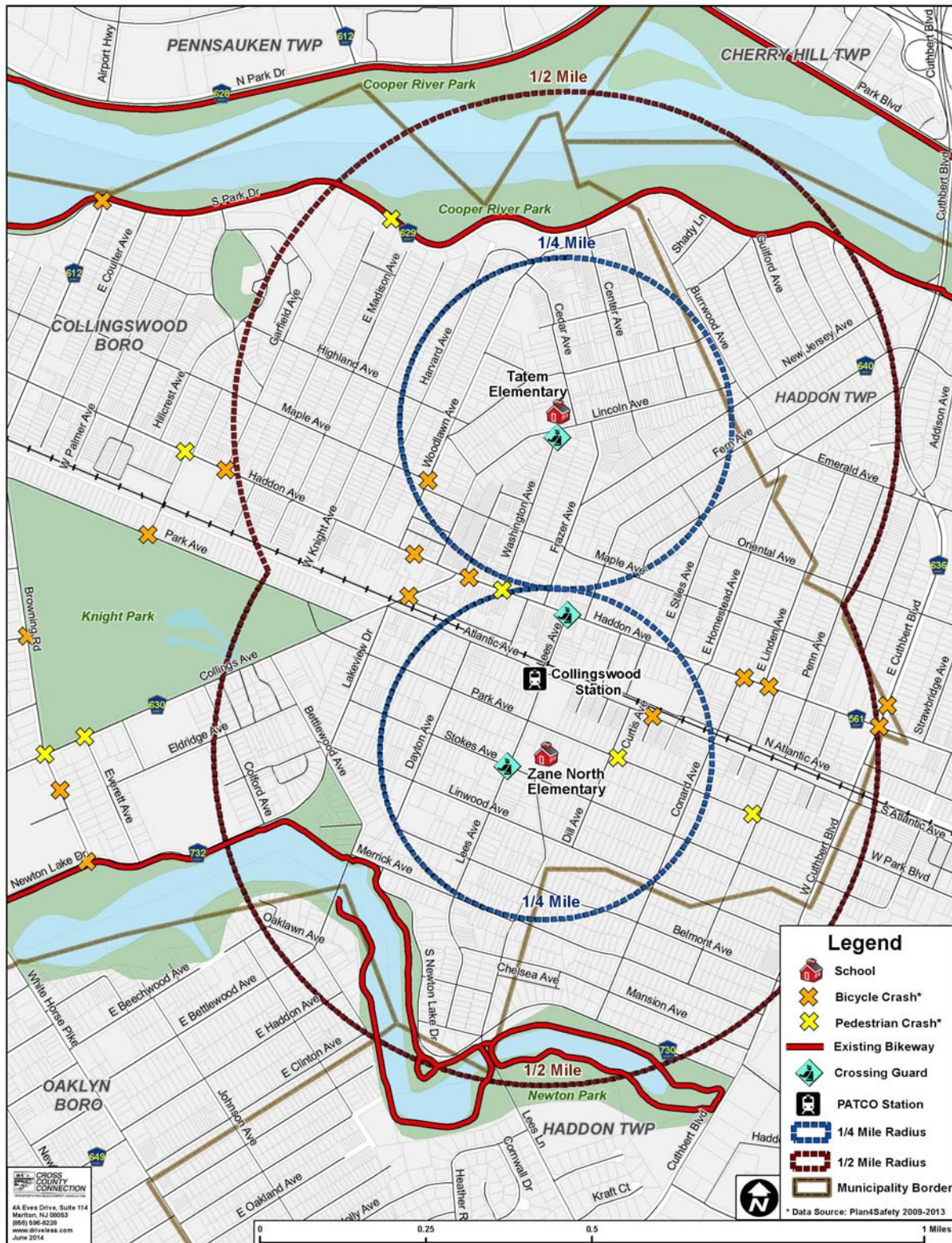


Figure 2: Cooper River off-road bike path

Bicycle and Pedestrian Crashes

Between 2009 and 2013, there were four vehicle crashes involving pedestrians and seven vehicle crashes involving bicyclists within the study area. Two out of the ten vehicle crashes involving either pedestrians or bicyclists in the study area occurred during peak student travel times (7:00a.m. to 9:00a.m. or 3:00p.m. to 5:00p.m). Crashes were most common on Haddon Avenue, as shown on Map 2, accounting for 45% of all bicycle and pedestrian crashes within the study area. This roadway represents the most significant safety concern in the Borough because of its high traffic volumes.

MAP 2. Study Area Crossing Guard and Crash Locations



Travel Safety Concerns

Travel safety concerns were identified through walking and bicycling audits, as well as meetings with municipal representatives and school staff, who relayed parent feedback. The study area consisted of residential and commercial areas located within a half mile radius around Tatem Elementary and Zane North Elementary.

General safety concerns include:

Speeding and Traffic Volume

School officials identified vehicle speeding as a safety concern along Haddon Avenue; the posted speed limit is 25 MPH. Significant traffic volume was observed during field audits along Haddon Avenue, Atlantic Avenue and Park Avenue. At student arrival and dismissal times, traffic volume increases around each school.

Missing Sidewalks

While much of the residential areas near both schools have sidewalks, there are still areas where no sidewalks are present. Some locations are missing sections while others are completely absent of sidewalks requiring pedestrians to walk in the roadway.

Missing Curb Ramps

Missing curb ramps at many crosswalks in the Borough create a safety hazard for students with disabilities.

Crosswalks/Crosswalk Visibility

Law enforcement personnel and walking audits identified several crosswalks with low visibility for both pedestrians and drivers due to faded pavement markings. During student arrival and dismissal times, it was observed that pedestrian movement in crosswalks is impeded by motor vehicle parking infractions. Also, pedestrian visibility in crosswalks is limited due to idling or parked vehicles near crosswalks.

Bicycle Facilities

Biking is a great way for children to get to school. Currently there are no bikeways such as a bike lane or bike path that lead to either school. If proper bicycle facilities were installed to facilitate safe bicycle travel, vehicle congestion may decrease around Tatem Elementary and Zane North Elementary at student arrival and dismissal times. The Collingswood School District would also have to change its no biking policy.

Biking on sidewalks is permitted in Collingswood, however sidewalks are not built for bicycle travel and biking on sidewalks often results in conflicts with pedestrians. For young children, it is appropriate and even desirable for them to ride with parental supervision on sidewalks away from vehicle traffic. For older students that received bicycle safety instruction, it may be appropriate to ride on roadways that safely accommodate bike travel. Students at any age should always wear a properly fitting bicycle helmet.

Vegetation Overgrowth/ Maintenance

There were locations identified where vegetation limited sidewalk access. Vegetation maintenance is important to ensure safe walking conditions for children.

Audit Findings

Due to Tatem Elementary and Zane North Elementary drawing each of its students from the north and south side of Haddon Avenue, respectively, audits were conducted in two focus areas: north of Haddon Avenue within a half mile of Tatem Elementary and south of Haddon Avenue within a half mile of Zane North Elementary. However, there are exceptions to the boundaries of these drawing areas. Approximately 31 students, or 7.8% of all students, reside on the opposite side of Haddon Avenue from which their school is located. Therefore, Haddon Avenue was also included in the audit.

North of Haddon Avenue—Tatem Elementary

This portion of the study area consists of the residential neighborhood within the borders of Haddon Avenue to South Park Drive and Hillcrest Avenue to Burwood Avenue. Students that live west of Tatem Elementary along Garfield Avenue, Crestmont Terrace, Madison Avenue, Knight Avenue and Havana Avenue utilize Highland Avenue to head east to get to school. Students that reside north of Tatem Elementary along Cedar Avenue, Center Avenue and Laurel Avenue use Lincoln Avenue to travel southwest to get to school. Students that reside east of Tatem Elementary on New Jersey Avenue head south to Frazer Avenue and then north to Lincoln Avenue. Those that reside on Fern Avenue and Lawnside Avenue utilize Maple Avenue to head west toward Washington Avenue, before heading north toward Tatem Elementary. Students living on East Homestead Avenue, East Linden Avenue and Penn Avenue utilize Maple Avenue, as well, to get to Washington Avenue.

Some roadways around Tatem Elementary are one-way streets. These streets include:

- East Collings Avenue, south from Washington Avenue to Haddon Avenue
- Washington Avenue, north from Haddon Avenue to Lincoln Avenue
- Fern Avenue, north from Haddon Avenue to East Cuthbert Boulevard

Transportation Concerns:

- The intersection of Lincoln Avenue and Washington Avenue is a choke point for vehicles. Due to the angle at which motorists must turn, as seen in Figure 3, vehicles obstruct the existing crosswalk. This was observed during field audits at this intersection and at Lincoln Avenue and Cedar Avenue.
- Illegal parking at the intersections of Lincoln Avenue and Washington Avenue and Lincoln Avenue and Cedar Avenue, as shown in Figures 4 and 5.



Figure 3: Intersection of Washington Avenue at Lincoln Avenue



Figure 4: Intersection of Lincoln Avenue and Washington Avenue



Figure 5: Intersection of Lincoln Avenue and Cedar Avenue

- At dismissal, cars were parked illegally in no parking zones and on the wrong side of the road on Cedar Avenue, as shown in Figure 6. This was also the case on Lincoln Avenue across from Tatem Elementary.
- Rolling stops by motorists and a lack of curb ramps were observed at Cedar Avenue and Woodlawn Avenue.
- Lack of sidewalk connectivity at:
 - West side of Woodlawn Avenue, from Cedar Avenue to Autumn Avenue, shown in Figure 7
 - South side of Highland Avenue, from Woodlawn Terrace to Woodlawn Avenue
 - Hillcrest Avenue
- Vegetation overgrowth was observed along Center Avenue, between Jersey Avenue and Lincoln Avenue.
- Faded crosswalks were identified at:
 - Cedar Avenue and Woodlawn Avenue, as shown in Figure 8
 - Lincoln Avenue and Center Avenue, as shown in Figure 9
 - Woodlawn Avenue and Highland Avenue
 - Autumn Avenue at Woodlawn Terrace and Woodlawn Avenue



Figure 6: Cedar Avenue

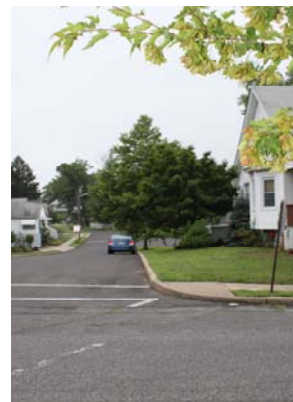


Figure 7: Lack of Continuous Sidewalk Coverage along Woodlawn Avenue



Figure 8: Faded Crosswalk at Lincoln Avenue and Woodlawn Avenue



Figure 9: Faded Crosswalks at Lincoln Avenue and Center Avenue

- During the audit, a Collingswood mailman noted that the intersection of Frazer Avenue and New Jersey Avenue was a bad intersection for pedestrians. As shown in Figure 10, the view for motorists turning right onto Frazer Avenue from New Jersey Avenue is obscured by parked cars and trees.
- There is a general lack of ADA-compliant curb ramps in the study area north of Haddon Avenue.
- School staff from Tatem Elementary noted that there are a lot of walkers that travel north up Washington Avenue. Currently, there are no crosswalks at the intersection of Maple Avenue and Washington Avenue.



Figure 10: Intersection of Frazer Avenue and New Jersey Avenue—Frazer Avenue is on the right

Haddon Avenue

Haddon Avenue serves as Collingswood's main commercial corridor. It connects Rt. 130 with Cuthbert Boulevard, where Collingswood meets Westmont. In 2012, the annual average daily traffic for Haddon Avenue is over 10,000 vehicles.³ Approximately 31 students must cross this roadway in order to go to and from both Tatem Elementary School and Zane North Elementary School.

Transportation Concerns:

- Although crosswalks and pedestrian signage exist along Haddon Avenue from the intersection of Collings Avenue to East Homestead Avenue, crossing this roadway was extremely difficult during the field audit. Police Sargent Kevin Carey noted that while a crossing guard is stationed at Lees Avenue and Haddon Avenue during student arrival and dismissal times, students still cross Haddon Avenue at various points along the roadway. He also reported that the crossing guard will notify police about vehicle infractions such as motorists not stopping for pedestrians.

³ New Jersey Department of Transportation, Roadway Information and Traffic Monitoring System Program, accessed on 6/20/2014, http://www.state.nj.us/transportation/refdata/roadway/traffic_counts/.

South of Haddon Avenue—Zane North Elementary

This portion of the study area consists of the residential neighborhood within the borders of Collings Avenue to West Cuthbert Boulevard and Haddon Avenue to the southern border of Collingswood and Haddon Township. Most students will use Lees Avenue or Stokes Avenue to get to Zane North Elementary, which is located at the northwest portion of the intersection, as shown in Map 2.

Some roadways around south of Haddon Avenue are one-way streets. These streets include:

- Lees Lane, north from Ventnor Avenue to Stokes Avenue
- North Atlantic Avenue, east from West Homestead Avenue to West Cuthbert Boulevard

Transportation Concerns:

- Illegal parking at the intersection of Stokes Avenue and Lees Avenue, shown in Figure 11. This was also observed at the intersection of Park Avenue and Dill Avenue. A school district employee stated that illegal parking and a lack of enforcement are the biggest safety issues around Zane North Elementary.
- While much of the residential area south of Haddon Avenue has continuous sidewalk coverage, there are a few areas where sidewalk connectivity is lacking. These areas include:
 - The east side of Lees Lane, from Stokes Avenue to Merrick Avenue
 - Both sides of Lees Lane, from Merrick Avenue to Mansion Avenue
 - The east side of Lees Lane, from Mansion Avenue to Ventnor Avenue
 - The west side of Bettelwood Avenue to Harding Terrace
- Sidewalks were in disrepair at two locations. These areas include:
 - Linwood Avenue, between Lees Lane and Dill Avenue, as shown in Figure 12
 - Stokes Avenue, between Dill Avenue and Conard Avenue, as shown in Figure 13



Figure 11: Intersection of Stokes Avenue and Lees Avenue



Figure 12: Sidewalk Disrepair at Lees Avenue



Figure 13: Sidewalk Disrepair at Stokes Avenue

- There is a general lack of ADA-compliant curb ramps in the study area south of Haddon Avenue.
- There are no crosswalks at Dill Avenue and Park Avenue. All other intersections at every corner around Zane North Elementary have crosswalks.

CHAPTER 3: ACTIONS: 5 E's

The following are the actions and recommendations suggested to achieve the goals listed in the Introduction by addressing the 5 E's of Safe Routes to School: Education, Encouragement, Enforcement, Engineering, and Evaluation.

Education

Education efforts are an important component in developing a sustainable Safe Routes to School Program and to relieve pedestrian and bicycle travel issues. These actions can help change community perceptions about how children should travel to and from school safely. They will also ensure that children receive proper instruction on walking and bicycling while raising community awareness of the benefits of walking and biking. Table 3 details the recommended Education Actions.

Table 3: Education Actions

Education Actions	Responsibility	Time Frame
Creation and distribution of educational materials to students, parents/guardians and community members	Tatem and Zane North Elementary Schools/Cross County Connection TMA /NJSRTS Program	Annually
In-class education on safe walking practices, along with their health and environmental benefits	Tatem and Zane North Elementary Schools /Cross County Connection TMA	Annually
In-class education on railroad safety	NJ TRANSIT	Annually
Inclusion of SRTS elements in Teacher and Student Handbooks	Tatem and Zane North Elementary Schools	Annually
Participate in New Jersey's SRTS Webinar Program	Tatem and Zane North Elementary Schools	Ongoing
Social Media Account	Tatem and Zane North Elementary Schools	Ongoing

Cross County Connection and the Alan M. Voorhees Transportation Center will provide safety education and outreach materials for distribution to students, parents and school staff. These materials may be circulated at parent-teacher meetings, school walking events, in-class, or included with municipal information. Pedestrian and bicycling safety education should also be addressed at parent-teacher meetings. Inclusion of parents in educational programming is a good way to reinforce safety education at home.

The school district should take advantage of Cross County Connection's 1st-3rd Grade Pedestrian Program on an annual basis. Through active participation, students will learn about the benefits of walking, ways to avoid potential hazards while walking, how to properly understand and obey pedestrian signals, cross roadways safely, and understand traffic flow. New Jersey Core Curriculum Standards Cumulative Progress Indicators are covered in this program. Many schools in southern New Jersey use the Pedestrian Program as a building point for their SRTS programs. After the pedestrian lesson is administered, it is followed by an encouragement activity, such as a walk to school day. This method builds the excitement of students by preparing them to participate as safe and knowledgeable pedestrians. In the past, Zane North Elementary School has participated in the program.

Due to the close proximity of the PATCO Speedline, it would be beneficial to the health and safety of students for both Tatem Elementary School and Zane North Elementary School to take advantage of NJ TRANSIT's Rail Safety in-class education program. By participating, students will learn how to recognize rail signage and cross railways. Students will also receive informational giveaways. For more information, contact Barbara Lazaro at (856) 614-7010 or blazzaro@njtransit.com.

Social media accounts, such as Facebook and Twitter can be created to solicit input from the community, as well as to disseminate information and request volunteers for encouragement activities. An email account can also be created to gather data.

Encouragement

Encouragement actions promote walking and biking to school through programs such as walking school buses, satellite walking events, a Golden Sneaker Award, and other activities that generate excitement about walking and biking. These programs are essential to building the momentum necessary to significantly change school travel habits.

Table 4: Encouragement Actions

Encouragement Actions	Responsibility	Time Frame
Walking School Bus (WSB) Pilot Program	Tatem and Zane North Elementary Schools/Cross County Connection TMA	Fall 2014
Satellite Drop Off Program/Walking School Bus	Tatem and Zane North Elementary Schools/Cross County Connection TMA	Fall 2014
Bicycle Rodeo	Tatem and Zane North Elementary Schools /Collingswood Police Dept./Cross County Connection TMA	2014-2015 School Year
Participation in International Walk to School Day	Tatem and Zane North Elementary Schools	Annually in October
Participation in International Bike to School Day	Tatem and Zane North Elementary Schools	Annually in May
Golden Sneaker Award Pilot	Tatem and Zane North Elementary Schools	2014-2015 School Year, Monthly

A Walking School Bus (WSB) is a group of children walking to school along a fixed route with one or more adults. It is suggested that Tatem Elementary School and Zane North Elementary School look into developing a pilot program next school year. By doing so, younger students will be given the opportunity to learn about safe pedestrian practices, while familiarizing themselves with their neighborhoods. This would also serve as an opportunity to encourage proper roadway crossing techniques to the students that must cross Haddon Avenue.

The SRTS Team should explore the opportunity to organize a Satellite Drop-off Program if a WSB pilot is unable to be coordinated. Much like a Walking School Bus, students are asked to meet school faculty at a designated location where the group then walks to the school. It is suggested that these events be coordinated at various times throughout the year to ensure sustainability and keep momentum going through future years. Jennifer McPartland, Elementary Supervisor of Instruction, expressed interest in organizing a Satellite Drop-off Program. Cross County Connection will work with either elementary school to identify safe satellite drop-off locations based upon where students reside.

If the Collingswood School District was to eliminate their no biking policy, Cross County Connection would assist in coordinating a bicycle rodeo on school grounds. Bicycle rodeos are used to teach a large group of schoolchildren safe bicycling practices, such as how to check tire pressure, brakes and bike chains, fit a helmet, signal for turns, and come to quick stops.

To further promote walking, each school should participate in International Walk to School Day and if the Collingswood School District was to eliminate their no biking policy, International Bike to School Day events should be organized, as well. International Walk to School Day and International Bike to School Day are held in the months of October and May, respectively. School events may be registered online by visiting www.walkbiketoschool.org. International Walk to School Day can act as the official kick off to their SRTS Programs, annually. Zane North Elementary School has participated in International Walk to School Day in previous years.

A Golden Sneaker Award Program is an incentivized contest that can be run in various ways. Some schools tally each student that walks or bikes to school daily, and at the end of each month the homeroom with the most walking students will earn the “Golden Sneaker.” A Golden Sneaker Award, like the one shown in Figure 14, can be created by spray painting an old running shoe gold and mounting it on top of a trophy stand. Incentive programs are a good way to keep the momentum going with SRTS programs.



Figure 14: Golden Sneaker Award

Enforcement

Enforcement of safe and lawful travel behavior around schools, on all travel corridors and throughout the town is important to ensuring a safe walking environment for children.

Table 5: Enforcement Actions

Enforcement Actions	Responsibility	Time Frame
Speed Enforcement	Collingswood Police	Ongoing
Stop for pedestrians in crosswalks enforcement	Collingswood Police	Ongoing
Parking Enforcement	Collingswood Police	Ongoing

Roadways directly around each school should be targeted for enforcement due to concerns about speeding and a lack of adherence to crosswalk and parking regulations. In addition to existing efforts, participation in New Jersey’s Pedestrian Decoy Safety Program⁴ should be considered. This program has been a successful enforcement tool in many New Jersey communities to ensure that vehicles stop for pedestrians in crosswalks and obey New Jersey’s “Stop and Stay Stopped” law (NJ 39:4-36).

While performing field audits, it was noticed that Center Avenue had sidewalks obstructed by vegetation. Maintenance on all locations throughout the Borough is important so as not to impede pedestrian activity, thus forcing students into the street. Well-maintained vegetation also improves the aesthetic quality of the pedestrian environment, improves visibility, and

⁴ “Cops in Crosswalks: Pedestrian Decoy Enforcement in New Jersey”, Pedestrian and Bicycle Information Center, Accessed on 3/25/2014, <http://www.pedbikeinfo.org/data/library/details.cfm?id=4649>

improves the comfort level of the sidewalk user. Maintenance responsibilities will be subject to the ownership of adjacent parcels. However, the school district and local government should educate residents about this problem and encourage them to maintain their properties.

Engineering

Engineering recommendations in this Travel Plan are discussed in Chapter 4 and shown on Map 3. These recommendations focus on safety improvements throughout the study area that can be implemented in a short timeframe. These recommendations are general in nature and should be examined in more detail. Any improvement would be subject to American Association of State Highway and Transportation Officials (AASHTO) and Manual on Uniform Traffic Control Devices (MUTCD) regulations and guidelines.

Evaluation

Determining participation in walking and biking programs, and parent concerns is an important part of a SRTS program. Evaluating these factors allows school staff to determine the success of their SRTS activities and how they might best prioritize and modify their efforts to encourage more children to walk and bike to school.

Table 6: Evaluation Actions

Evaluation Action	Responsibility	Time Frame
Student Travel Tally	Tatem and Zane North Elementary Schools	2014-2015 School Year; Quarterly
Parent Survey	Tatem and Zane North Elementary Schools /Cross County Connection TMA / Voorhees Transportation Center	2014-2015 School Year; Annually

School staff should conduct student tallies and/or parent surveys to measure the number of children walking. Student tallies are held in-class by school staff to determine how children arrived at school that day. Tallies should be held at regular intervals to determine the impact of SRTS activities in student travel choices. Tallies should also be compared yearly to measure annual success.

Parent surveys may be sent home with children or distributed to parents electronically to determine parent attitudes and concerns about children walking or biking to school. Cross County Connection TMA will assist schools in assessing results and coordinating follow-up activities, if desired.

Additional information on evaluation methods is available at the New Jersey Safe Routes to School website: <http://www.saferoutesnj.org/resources/stp/measuring-progress/>

CHAPTER 4: RECOMMENDATIONS

Based on the findings of this Travel Plan and discussions with the Working Group, the following improvements should be considered to accommodate and encourage safe walking and bicycling to and from Tatem Elementary School and Zane North Elementary School. These recommendations are shown on Map 3.

Bicycle Facilities

If the Collingswood School district were to lift the ban on bicycling to and from school, proper bicycle facilities should be in place. Bicycle facilities such as bike lanes or shared lane pavement markings (sharrows), designate a roadway as a shared travel environment for bicycles and automobiles. Sharrow markings, seen in Figure 15, alert motorists to expect and share the road with cyclists and also show bicyclists where to ride. “Share the Road” signage, or plaques used to warn drivers that bicyclists will be using the road, can be utilized in combination with sharrows. Guidance on shared lane markings and signage can be found in the Manual on Uniform Traffic Control Devices (MUTCD).



Figure 15: Sharrow

Based upon guidelines set forth by the National Association of City Transportation Officials (NACTO) and the American Association of State Highway and Transportation Officials (AASHTO), it is recommended that a professional Engineer be contacted about providing bicycle facilities on the roadways in the study area.

Crosswalk Markings

Currently, there are some crosswalks missing on primary school travel corridors. High visibility marked crosswalks are important in locations with significant pedestrian traffic because it both alerts motorists to the presence of a crosswalk and designates proper crossing locations to pedestrians.

It is recommended that an engineer be consulted regarding the installation of appropriate crosswalk markings at:

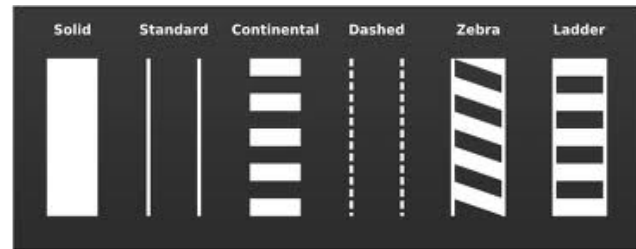
- The Intersection of Maple Avenue and Washington Avenue
- The intersection of Dill Avenue and Park Avenue

Recommended repainting of appropriate crosswalk markings at:

- The intersection of Cedar Avenue and Woodlawn Avenue
- The intersection of Lincoln Avenue and Center Avenue
- The intersection of Woodlawn Terrace and Highland Avenue
- The intersection of Autumn Avenue at Woodlawn Terrace and Woodlawn Avenue

Installation of higher visibility zebra, ladder, or continental crosswalk markings, shown in Figure 16, should be considered instead of the existing double line marking to delineate heavily-used crosswalks in the study area. These higher visibility crossings have been shown to reduce vehicle-pedestrian conflicts.

Figure 16: Crosswalk Treatments



Missing Curb Ramps

There are a number of non-ADA compliant curb ramps at intersections and crosswalks in the study area. This creates a safety hazard for students with mobility impairments and impedes bicycle travel for younger students that ride on sidewalks. The Americans with Disabilities Act (ADA) requires state and local governments to follow specific standards at pedestrian crossings that dictate the width, slope and placement of curb ramps. ADA requirements also specify that curb ramps must be equipped with detectable warning surfaces that provide detectable warning to visually impaired pedestrians. The ADA rules and requirements vary depending on whether the roadway was constructed “Pre-ADA” – 1992 or earlier – or, “Post-ADA” – 1993 to present.⁵ Cross County Connection recommends consulting with an engineer or other qualified professional familiar with ADA requirements when exploring options to improve pedestrian safety in the study area.

Traffic Control

Speeding along Haddon Avenue was a concern mentioned by local police and school officials. During the audit, motorists were also observed not stopping for pedestrians in crosswalks. Additional traffic calming measures could slow vehicle traffic and alert motorists to the presence of pedestrians.

Recommended installation of traffic calming devices or infrastructure at:

- Haddon Avenue, between Irvin Avenue and East Homestead Avenue

Wayfinding Signage

Wayfinding signage and markings provide direction to students and parents and mark roads as preferred travel routes. Wayfinding could include paint markings designating preferred corridors by color or markers designate safe travel routes. These markings and signs also increase visibility of walking routes among the community and encourage more children to walk or bike to school. This plan recommends consideration of wayfinding markings or signage to be placed throughout the neighborhoods north and south of Haddon Avenue.

⁵ For more information on the Specific Requirements for local governments under the Americans with Disabilities Act please visit *ADA Best Practices Tool Kit for State and Local Governments* at <http://www.ada.gov/pccatoolkit/toolkitmain.htm>.

Missing Sidewalks

While the majority of the study area has continuous sidewalk coverage, there are several locations with gaps in the network.

Consider completing the sidewalk network on the following roadways:

- West side of Woodlawn Avenue, from Cedar Avenue to Autumn Avenue
- South side of Highland Avenue, from Woodlawn Terrace to Woodlawn Avenue
- Hillcrest Avenue
- The east side of Lees Lane, from Stokes Avenue to Merrick Avenue
- Both sides of Lees Lane, from Merrick Avenue to Mansion Avenue
- The east side of Lees Lane, from Mansion Avenue to Ventnor Avenue
- The west side of Bettelwood Avenue to Harding Terrace

In addition to the above locations, there were areas where sidewalks were in disrepair. It is recommended that Collingswood look into repairing the following sidewalks:

- Linwood Avenue, between Lees Lane and Dill Avenue
- Stoke Avenue, between Dill Avenue and Conard Avenue

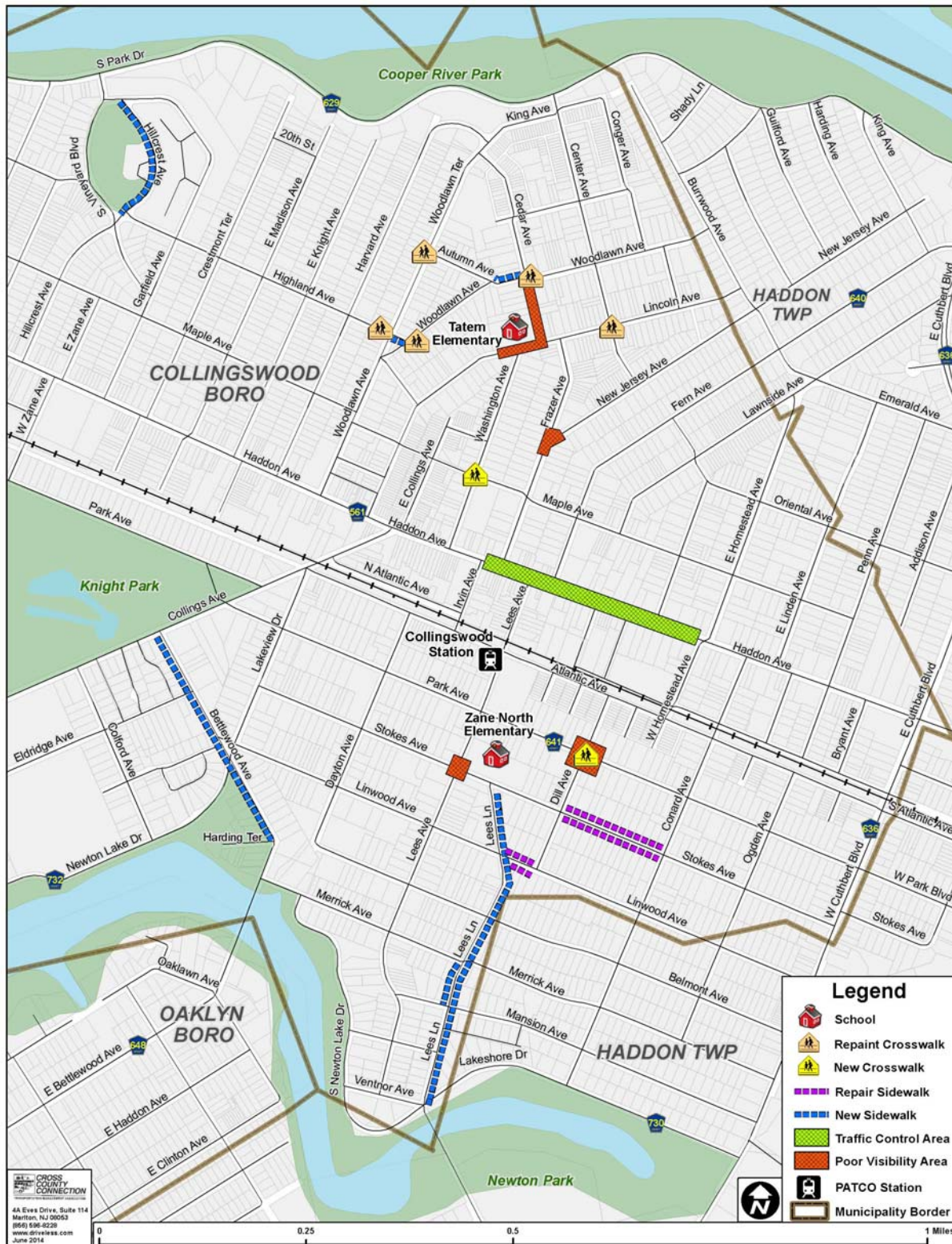
Intersections: Visibility/Safety

During walking audits, obstruction of crosswalks by motorists was observed at intersections around both Tatem Elementary School and Zane North Elementary School. It was also observed that trees and vehicles parked close to intersections decreased visibility for motorists.

It is recommended that visibility issues and motor vehicle infractions be reviewed at the following intersections:

- Lincoln Avenue, in front of Tatem Elementary
- Cedar Avenue, from Lincoln Avenue to Woodlawn Avenue
- The intersection of Frazer Avenue and New Jersey Avenue
- The intersection of Lees Avenue and Stokes Avenue, adjacent to Zane North Elementary
- The intersection of Dill Avenue and Park Avenue

Map 3: Study Area Recommended Improvements



Project Funding

Implementation of engineering improvements can be expensive. Fortunately, there are funding programs at the state and federal level dedicated to assist with the implementation of projects that would improve the safety of Tatem Elementary School and Zane North Elementary School students walking to school. These funding programs are competitive, have deadlines and the application process requires time to complete. In addition, the programs listed below receive far more funding requests than can be obligated. Cross County Connection is available to provide assistance in determining appropriate funding sources and preparing grant applications.

The funding programs listed below are provided as a general guide, and are not an exhaustive list of available funding sources. For more information on a specific program, please contact the granting agency or refer to the grant program guidelines found on the program websites.

Safe Routes to School (SRTS) Infrastructure Program

Federal funding is available for SRTS projects that improve the safety of children walking or biking to school. The program is administered through NJDOT. Eligible projects may include the planning, design, construction or installation of sidewalks, crosswalks, signals, traffic-calming and bicycle facilities within two miles of an elementary or middle school (K-8). Local and regional governments, school districts and individual schools are eligible to be project sponsors and receive direct funding.

Transportation Alternatives Program (TAP)

TAP is a federal funding program administered through NJDOT. The program is designed to foster more livable communities and promote alternative modes of transportation such as biking and walking. Eligible activities include bikeway construction, acquisition of right-of-way for bikeways and many other projects. Activities funded by TAP were previously funded by the Transportation Enhancements (TE) Program contained in previous federal transportation bills. A key addition to the TAP program in the current federal transportation bill (MAP-21) is the funding eligibility for projects dedicated to the construction, planning and design of infrastructure projects that provide “safe routes for non-drivers” which includes children, seniors and disabled persons. NJDOT is providing the 20% match required under the new MAP-21 legislation. Eligible project sponsors for TAP funds include local and regional governments, transit agencies, school districts and individual schools.

Municipal Aid Program

Municipal Aid is a state-funded program administered by NJDOT for roadway and bridge improvements, including bicycle and pedestrian projects. Each county is appropriated funds for their constituent municipalities based on a formula. Municipalities must submit applications, detailing a potential project, to their local NJDOT District Office. Projects awarded funds in 2013 included construction of bicycle lanes and pedestrian safety improvements.

School districts and individual schools are not eligible to apply for these funds directly, but should encourage their municipal government to apply for these funds and direct them towards improving the bicycle and pedestrian safety around their schools.

For more information regarding these three funding programs contact:

New Jersey Department of Transportation (NJDOT)

Website: <http://www.state.nj.us/transportation/business/localaid/>

District Manager, NJDOT

1 Executive Campus

Route 70 West, 3rd Floor

Cherry Hill, NJ 08002

Phone: 856-486-6618

Fax: 856-486-6771

Conclusion

William P. Tatem Elementary School and Zane North Elementary School are committed to increasing the number of children who walk to school through safety improvements and programs that educate and encourage walking. The municipality and school district currently addresses child walking safety by providing crossing guards at busy crossings. This Travel Plan was undertaken to address the school district's interest in improving walking programs, and the continued concerns about existing and potential safety issues due to speeding, road crossings and pedestrian infrastructure gaps in the community it serves.

Implementation of this plan and the sustained success of any effort to increase walking to school will require continued partnership among local and regional organizations. Infrastructure improvements must be employed alongside hands-on education and encouragement programs to maintain momentum towards achieving the goals set forth by the SRTS Team. Tatem Elementary School, Zane North Elementary School and the municipality have demonstrated through current and previous efforts that they are committed to creating a community that fosters active and healthy children, as well as providing a safe environment for walking.