School Travel Plan

April 2018

Roosevelt Elementary School – Manville, NJ









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Disclaimer

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Executive Summary - Roosevelt Elementary School Travel Plan

Prepared by: RideWise Inc. March 2018

The purpose of the Roosevelt Elementary School Travel Plan is to identify measures, including both infrastructure projects and programmatic activities, aimed at improving and/or encouraging safe walking and biking to school. These measures will serve as part of an implementable action plan which, when carried out by the schools, the Manville School District, Manville Borough, and partners, will encourage more students to bike or walk to school.

School Travel Plans are location-specific and describe the needs of each school being studied. The plan includes observations, ideas and an action plan to address issues and problem areas. The Plan covers five aspects of the Safe Routes to School program – *Education, Encouragement, Enforcement, Evaluation*, and *Engineering*. The School Travel Plan outlines the timeframe and funding priorities to support improvements. Additionally, the New Jersey Safe Routes to School (SRTS) infrastructure funding program strongly recommends applicants have an approved School Travel Plan to apply for a grant through New Jersey Department of Transportation (NJ DOT)

Traditionally, SRTS programs look at a 2-mile radius from the school. Because of the size of the borough, a 1-mile radius from Roosevelt School will cover virtually the entire school district.

Manville Borough is planning a North Jersey Transportation Planning Authority (NJTPA) Street Smart campaign for the summer of 2018. Through public outreach, RideWise has repeatedly heard from long-time residents almost all students walked to school every day. By 2nd grade, most students were walking alone or with neighbors which continued until they had access to a car or graduated from Manville High School. Walking and biking to school were part of every student's educational experience. This school travel plan, when implemented over time, will again make walking and biking to school a regular safe and sustainable mode of transportation.

The goals of the Roosevelt School Travel Plan are:

- Identify any issues that impact safety on the key travel routes used by students.
- Provide a list of suggestions to improve the school travel environment (e.g.
 improve safety, reduce congestion) to encourage more students to walk and bike
 to school.
- Categorize the suggestions in terms of cost and time needed to make repair.
- Implement solutions to encourage more students to walk and bike to school.

The observations and recommendations detailed in the School Travel Plan are captured in an action plan. The Safe Routes to School program categorizes the action plan into the "Five E's:" Education, Encouragement, Enforcement, Engineering and Evaluation. This format helps the school and borough prioritize next steps and anticipated costs. In each community, some of the E's may be more urgently needed than others. The school can execute the recommendations in the order they choose based on priority, timeframe and/orcost. The action plan can be used to support SRTS and other federal or state grant applications.

It is very important to note that if applying for an NJ DOT SRTS grant, the application should not only be a sidewalk replacement plan. A successful grant application considers multiple perspectives which make biking and walking to school safer and more appealing. This can be accomplished by repairing and installing infrastructure such as sidewalks, crosswalks and signs; slowing or reducing traffic near schools; having a plan to enforce parking, maintenance or speed ordinances, and improving health and air quality.

High-level Actions & Recommendations include:

- Work with parents and school district to improve safety, specifically around Roosevelt School;
- Work with school district and borough to put in place policies and controls to make the area immediately around Roosevelt School safer.
- Install, expand and repair sidewalks and other pedestrian and bicyclist facilities;
- Install solutions to slow car speeds and better identify school zones;
- Encourage more students to walk and bike to school to reduce congestion and traffic while improving air quality;
- Provide annual, in-school safety education working with RideWise Inc.



RideWise Inc. 360 Grove Street Bridgewater, NJ 08807 www.ridewise.org



School Description

SCHOOL NAME: Roosevelt Elementary School

SCHOOL DISTRICT: Manville School District

SCHOOL ADDRESS: 410 Brooks Blvd, Manville, NJ 08835

CITY: Manville

GRADE LEVELS: Grades 4-5 until end of 2017-18 school year. Starting 2018-19, will

change to grades 3-4.

STUDENT POPULATION:

235

SCHOOL HOURS:

Teachers Report: 7:45am
Breakfast: 7:30am
Students Enter: 7:55am
Students Depart: 2:25pm
Teachers Depart: 2:35pm

	Regular Day	Early Dismissal (Half Day)	Delayed Opening
Homeroom	8:00 - 8:15	8:00	10:00
Period 1	8:15 – 9:00	8:00 - 8:35	10:00 – 10:35
P2	9:00 - 9:45	8:35 – 9:10	10:35 – 11:10
P3	9:45 - 10:30	9:10 - 9:45	11:10 – 11:45
P4	10:30 – 11:15	9:45 – 10:20	11:45 – 12:20
P5 LUNCH	11:15 – 12:05	10:20 – 10:50	12:20 – 12:50
P6 LUNCH	12:05 – 12:55	10:50 – 11:20	12:50 – 1:20
P7	12:55 – 1:40	11:20 – 11:55	1:20 – 1:55
P8	1:40 - 2:25	11:55 – 12:30	1:55 – 2:30
Dismissal	2:25	12:30	2:30

Emergency Early Dismissals will follow regular bell schedule, eliminating the last periods. Lunch will be provided on Early Dismissal days.



BOROUGH DESCRPTION:

Manville Borough:

Manville is a borough in Somerset County. As of the 2010 United States Census, the borough's population was 10,344, reflecting an increase from the 10,343 in the 2000 Census. Manville was named after the Johns-Manville Corporation which had maintained a large manufacturing facility in the borough for several decades.

Historically, many of Manville's residents are of Slavic, mostly of Polish and Ukrainian, descent. At one time, Manville had a number of businesses and restaurants geared towards the Polish-American community located along Main Street. One of the catholic parishes still has a Saturday evening mass in Polish and information sent home from the school district is available in English, Spanish and Polish.

Borough profile:

The borough is heavily residential with distinct neighborhoods – Northside, Southside, Weston / Little Weston, Lost Valley. The neighborhoods are roughly defined by the train tracks that divide the borough but do not impact which schools students attend. Schools are grade-specific and do not have catchment areas.





The borough's history goes back to the Revolutionary War period when the area was almost entirely farmland. It remained farmland until the 1920s when the Johns-Manville plant was established and a large group of Polish, Slovak and Ukrainian workers relocated from the coal mining areas of Pennsylvania to Manville. Over the next several decades, the population has diversified but materials from the schools are available in English, Polish and Spanish. Due to its proximity to the downtown business district, the former J-M plant, and 3 of the borough's four schools, the Northside neighborhood has the most complete sidewalks and pedestrian facilities. They are significantly less available in other neighborhoods. The borough began installing new sidewalks and repainting crosswalks around Weston School in mid-2017.

Because of the proximity to the Raritan and Millstone rivers and the Weston Canal, Manville has historically had severe flooding problems. This has limited construction and investment and caused a significant decline in the borough's population between 1990-2000. The area was particularly hard hit during Hurricane Floyd in September 1999 when over 13" of rain fell in Somerville.

Crash Data:

Pedestrian safety is a growing concern in Manville. RideWise Inc. is working with Manville Borough to launch a *Street Smart* campaign on S.Main Street in response to a growing number of car – pedestrian crashes, including at least two fatalities along with several serious injuries in 2017.

Pedestrian safety concerns and dangerous driving activities are not limited to S.Main Street. Data from Numetric, from 2006-16 shown on the next page, there have been a number of incidents within two blocks of Roosevelt School. Across there borough, there have been 104 total crashes involving pedestrians or bikes in the same time period.





Source: Rutgers CAIT Numetric

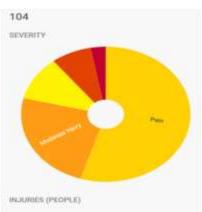
Crash Severity	Total	Bike / Ped Involved
Property damage only	19	1
Pain	2	0
Moderate injury	2	0

- Most common timeframe for crashes in this area is 2:00 4:00pm (9 occurred)
- Most crashes occurred in March & August (4 each month)
- Most common days for crashes are Monday & Friday

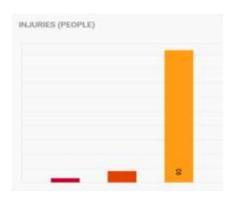
The greatest period of risk around Roosevelt School is at the beginning and end of the week during afternoon pick-up. The most dangerous intersection is several blocks away at N.Main Street & Brooks Blvd.





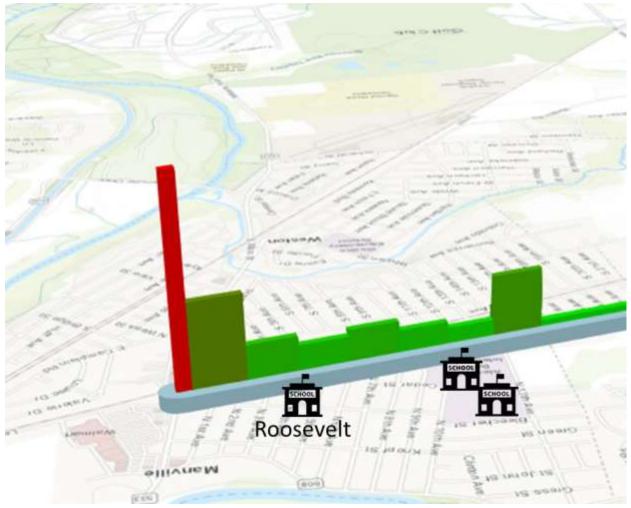


Crash Severity	Total
Fatal	3
Incapacitating	8
Moderate	25
Pain	57
Property Damage only	11



Impact to people	Total
Fatal	3
Incapacitating	8
Other injuries	93

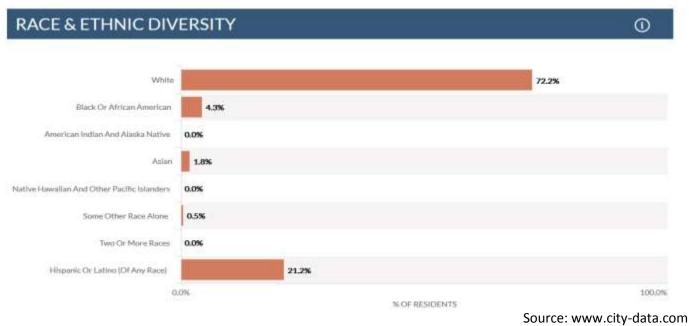
3-D crash pictograph



Source: NJ Safety Voyager



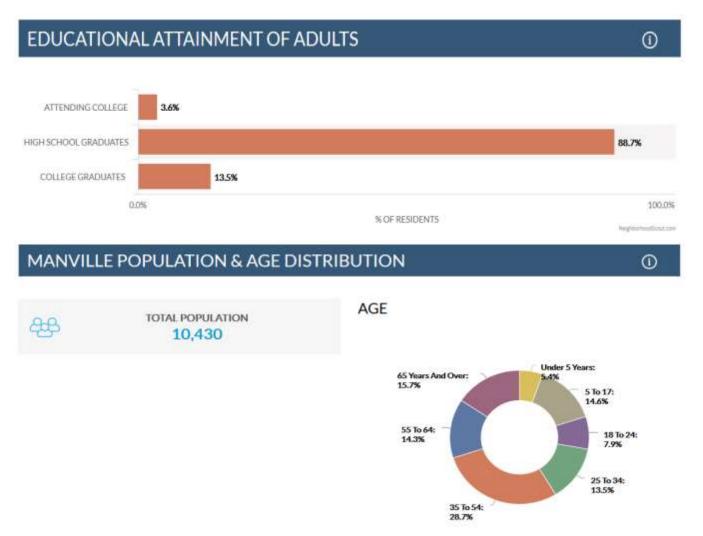
Borough Demographics:





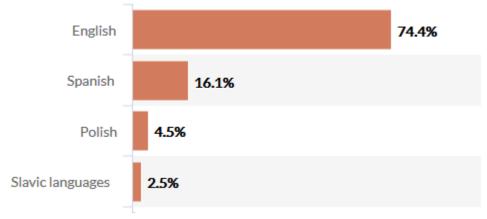
Source: www.city-data.com





Source: www.city-data.com

Most common languages:

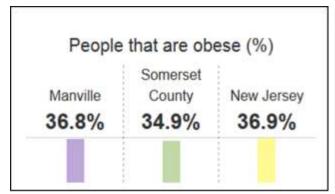


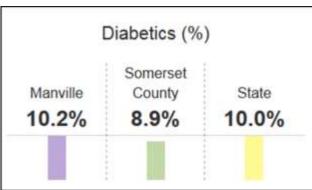
Source: www.city-data.com

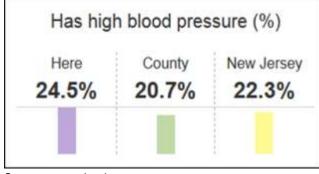
Community Health Profile Data:

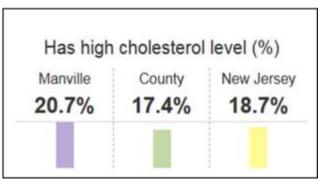
Several key health indicators in Manville are higher than both county and state averages. These include obesity, diabetes, high blood pressure and high cholesterol. The reason these metrics are significant is they can be predictors of future student health. All of these health indicators can be improved through changes to diet and exercise.

Student exercise can be significantly increased by regular walking and biking to school. As a walking district, 24% of students live within .25 miles and 92% live within 1 mile of Roosevelt School. Students within .50 miles of the school would walk between 10-20 minutes in each direction. Walking to school would help students achieve a large amount of the 60 minutes of recommended daily exercise. The existing Walking Wednesday can be a springboard to getting students walking almost every day.



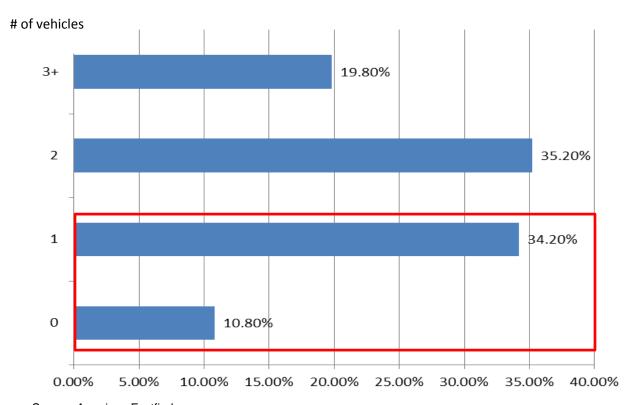






Source: www.city-data.com

Another health consideration is household accessibility to vehicles. In households with 1 or no vehicles, a working parent may use the only transportation option, potentially resulting in chronic absenteeism or increased household expense for taxis or other one-way transportation options. There is currently no data available on how children in households with 1 or no vehicles get to school but that is a group which can be strongly encouraged to regularly walk or bike to school. In Manville, 45% of households have 1 vehicle or less.



Source: American Factfinder



School district & education:

The Manville School District has 4 schools:

- Weston Elementary School for grades PK-3 students (503)
- Roosevelt Elementary School for grades 4-5 students (224)
- Alexander Batcho Intermediate School for grades 6-8 students (303)
- Manville High School for grades 9-12 students (389)

Christ the King School, which was part of the Diocese of Metuchen, closed in 2015 due to declining enrollment.

The Education Law Center found that Manville was the eighth most underfunded district in New Jersey from their May 2016 report. Manville School District is a walking district, no busing is provided. Students and families are required to support transportation to school. Three of the district's four schools are located along Brooks Blvd on the northside, only Weston School is outside of that area. Schools catchment areas are not determined by address, each school houses specific grades.

Beginning in 2018-19, grades are being moved around at the schools.

2018-19 planned re-alignment:

- Weston Elementary School for grades PK-2 students
- Roosevelt Elementary School for grades 3-4 students
- Alexander Batcho Intermediate School for grades 5-7 students
- Manville High School for grades 8-12 students

Almost every student lives within .70 miles of any school. Manville is not a choice school district, all students are borough residents.

Manville was previously a section of Hillsborough Township called Harmony Plains until 1929. Roosevelt School was the first school built by Manville Borough. The two existing one and two-room schools were built by the Hillsborough Board of Education and did not meet Manville's growing educational needs. Construction of Roosevelt School started in 1928 and the school opened in 1929. Additional schools were built across Manville starting in the 1950s. Students previously attended Bound Brook High School before Manville built its own school.

NEW JERSEY Safe Routes to School



Parks & public space:

The borough maintains several parks, sports fields and pools apart from playgrounds and facilities found at the schools. Park locations are:

Lincoln Park, Lost Valley Section

- 3 Softball/Baseball Fields
- 4 T-Ball Fields
- 1 Basketball Court
- 1 Playground

Huff Avenue Sports Complex, Lost Valley Section

- 1 Soccer Field
- 1 Flag Football Field

Cooper Street Park, Lost Valley Section

- 1 Adult Pool
- 1 Playground

Papwick Park, Weston Section

- 2 Soccer Fields
- 1 Basketball Court
- 1 Playground

Haran Ave Park, Little Weston Section

- 1 Basketball Court
- 1 Playground
- Four Square

Memorial Park, Weston Section

- 1 Adult Pool
- 1 Kiddie Pool
- 1 Basketball Court
- 1 Playground

10th Avenue Park, Northside

1 Playground

Manville Mustangs Football Complex, Northside

1 Football field

Dukes Parkway Park, Northside

Seasonal amenities



Shops & economic center:

The Johns-Manville manufacturing plant declined in the 1970s and closed in the mid-1980s after its main product, asbestos, was found to be a cancer hazard. The J-M plant was gradually torn down as part of a Super Fund project, the site was replaced by the Marketplace At Manville which has a Walmart Super Center as the anchor store. There are still several smaller, family-owned businesses along North and South Main Street (County Route 533) although a large number have closed after Rustic Mall was torn down and Walmart became the center of the borough's economic hub. ADESA New Jersey, a car wholesaler, has become the borough's largest employer.

Transit & rail:

Manville is not served by NJ Transit buses or trains. The Somerville, Bridgewater, Raritan and Bound Brook rail stations are all within 5 miles of the borough. NJ Transit buses also do not connect to the borough but Somerset County provides bus service via their R1, R2 and Peak routes which connect to transit options in Somerville.

The Norfolk Southern Railway Lehigh Line, Conrail Shared Assets Operations Lehigh Line and the CSX Transportation Trenton Subdivision freight lines all connected at Port Reading Junction in Manville. This results in several freight trains going through the borough daily. The immediate danger is much of the track is at grade, including at 13th Street which is the only safe crossing point for students heading from different neighborhoods to the schools. There have been train-related fatalities and safety is a key concern for both parents and the school district. RideWise SRTS has specifically been asked to cover that topic in Safety Town pedestrian education classes.



Traffic generators:

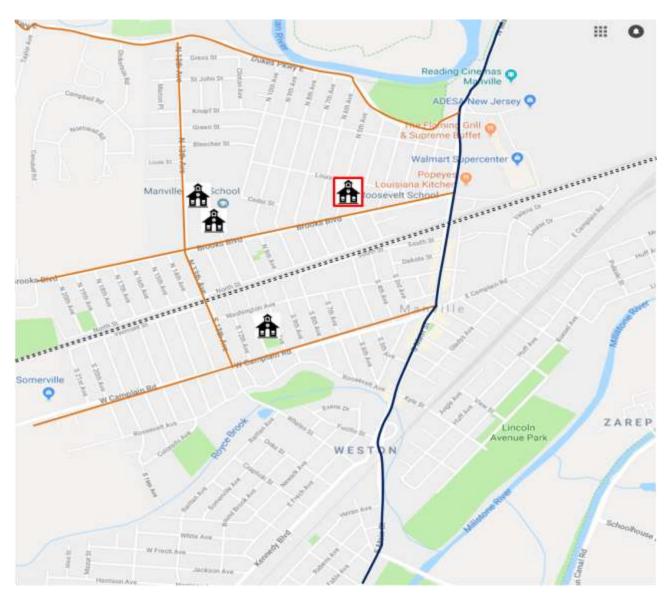
Manville has become a pass-through, not necessarily a destination. Main Street (County Road 533) connects Franklin, Hillsborough and Bridgewater. Due to its proximity to I-287 and corporate parks in the Somerset section of Franklin, several cars pass through Manville to get to those destinations.

Car-ped crashes have become a very big problem with 9 pedestrians being struck on S. Main Street in 2017 resulting in 2 fatalities. Somerset County has approved a project to redesign Main Street starting in 2019-20 which will install pedestrian refuge islands, traffic calming and safer pedestrian crossings. RideWise Inc. has targeted the area for a Street Smart campaign in spring 2018. Less than 3 miles of the 42 miles of roadway in the borough are the county's jurisdiction. The borough is responsible for enforcement, maintenance and upkeep of all other roads. State Route 206 does not go through Manville but the borough serves as a shortcut connecting via both Camplain Road and Brooks Blvd.

Within the borough, Brooks Boulevard, W. Camplain Road, 13th Avenue and Dukes Parkway East are major roads.

- Brooks Blvd connects Rt. 206 to Main Street in Northside and passes 3 of the 4 schools.
- 13th Street connects Northside and Southside, it is the only signalized crossing of the train tracks and the common connection leading to all 4 schools.
- Dukes Parkway East connects Rt. 206 to the far end of N.Main Street and carries a high volume of traffic but none of it is near the schools or walkable sections of the borough.
- W.Camplain Road connects South Main Street and Rt. 206. It bisects 13th
 Avenue and runs through largely residential neighborhoods. The road is used
 heavily by trucks to get to a metal recycling company in Hillsborough on the
 same road, and to connect to Rt. 206.

NEW JERSEY Safe Routes to School



Municipal

Dukes Parkway E N.13th Ave S.13th Ave Brooks Blvd W.Camplain Road County

CR 533 - Main Street

= = = CSX Railroad

Freight only



EXISTING SRTS PROGRAMMING:

Roosevelt School has the only sustained SRTS program in the district. The first Wednesday of every month is Walking Wednesday. Roosevelt School and RideWise Inc. seek to get as many students biking or walking to school as possible. This is particularly important because Manville is a walking district. The police department provides crossing guards at several key intersections and around the schools. Any reduction in car traffic around schools will increase safety and reduce carbon emissions which can get pulled into classrooms. Monthly walk to school days are fully supported and celebrated by the school.

The principal and SRTS champion meet students at the school to provide stickers and raffle tickets. Students who walk to school get 1 ticket, students who bike, skateboard or come via scooter with a helmet, get 2 tickets. Each school day starts with a short, all-school assembly in the gym. The principal, special guest or staff member selects 2-3 raffle tickets and students who biked or walked get a small prize. Roosevelt School earned Silver Recognition for New Jersey Safe Routes to School Walk to School program in 2017.

RideWise Inc. has worked with the school to help address parking issues and dangerous parent driving behaviors which occur at pick-up and drop-off. The school has been very proactive responding to parent concerns and has hosted meetings with representation from parents, the police, and the borough. An on-going project team has been established to help address issues and make the school zone safer.

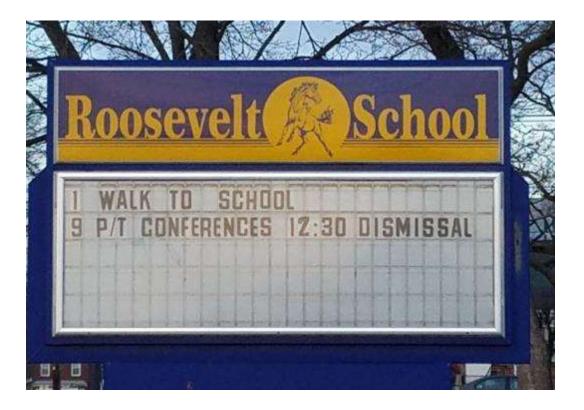
Bike parking exists at the school and is located in a safe, highly visible location.

At this time, Roosevelt School has not had an opportunity to teach RideWise Inc.'s Safety Town course due to logistics. The only available space is a combination activity room, gym and lunch room which has made scheduling classes challenging. RideWise and the school continue to look for solutions to provide student education this spring.

Roosevelt also partners with RideWise Inc. on special events which involving walking within the borough. Fifth grade students celebrate "Step Up Day" in the late spring when they walk from their school to Alexander Batcho Middle School for orientation. A rolling Manville PD patrol closes intersection as students cross, RideWise provides a safety overview before the event starts on where and how to safely cross streets.



Step Up Day 2017





Roosevelt School SRTS Working Group

Member Name	Organization / Title	Role / Responsibility	Contact Info (Phone, email)
Gerry Montague	RideWise Inc.	SRTS Coordinator	Gerry@ridewise.org
Erin Bolte	Roosevelt School	SRTS champion	ebolte@manvillesd.org
Jamil Maroun	Roosevelt School	Principal	jmaroun@manvillesd.org
Ryan McNally	Roosevelt School	Student guidance councilor	rmcnally@manvillesd.org
Bob Beers	Manville School District	School Superintendent	rbeers@manvillesd.org
Sandy Kopp	Roosevelt School safety working group	Parent	misssandy@optonline.net
Kimberly Bias	Roosevelt School safety working group	Parent	Kim.Evans@adesa.com
Heather Ball	Manville Arts Council	Parent	heatherb@manvillearts.org
Donna Lewin	Roosevelt School safety working group	Parent	donnalewin@holnc.il.com
Jennifer Sanders	Roosevelt School	School secretary	jsanders@manvillesd.org
Sgt. Jeff Petrone	Manville Police	Traffic officer	jpetrone@manvillepd.org
Andrea Bierwirth	Manville Borough	Borough Administrator	ABierwirth@manvillenj.org



SCHOOL TRAVEL TALLIES

The student travel tallies collect data on how students are arriving at and going home from school. Collecting this data before and after infrastructure investments are completed, it helps measure the effectiveness of the Safe Routes to School program. The data was collected at Roosevelt School in March 2018. Travel tallies are a snapshot in time and reflect transportation choices during that specific period. For travel tallies to paint the most accurate picture, they should be taken at different times during the school year. Tallies taken in nicer weather, at the start of the school year and in late spring, are more likely to show a larger number of students biking and walking to school.

Total Travel Modes - March 2018

MODE	ARRIVAL	DEPARTURE
Car	448	350
Carpool	52	74
Bus	0	11
Walk	110	175
Bike	0	0



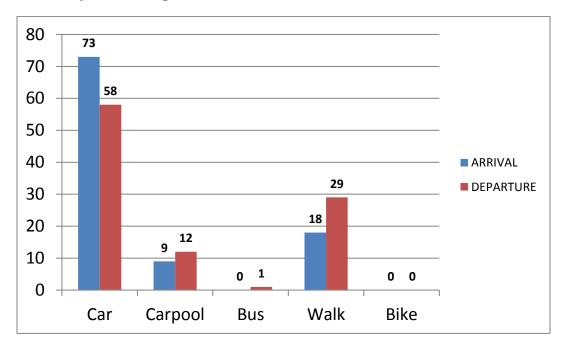






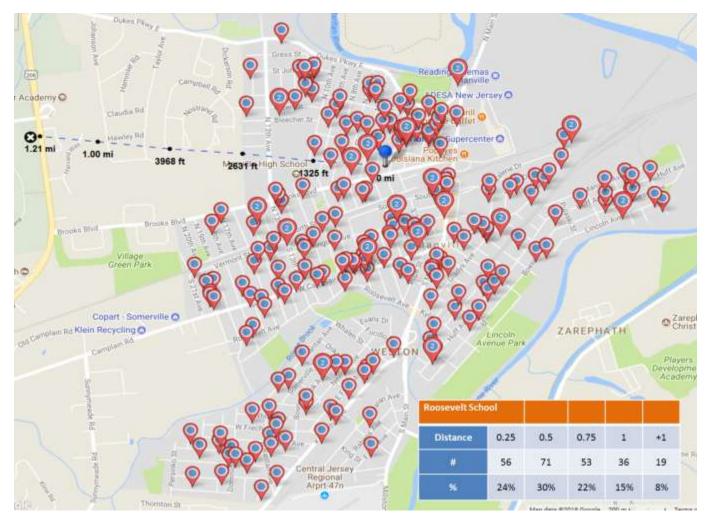


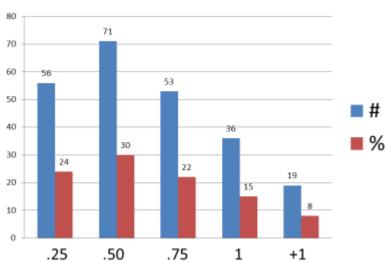
Travel Mode by Percentage





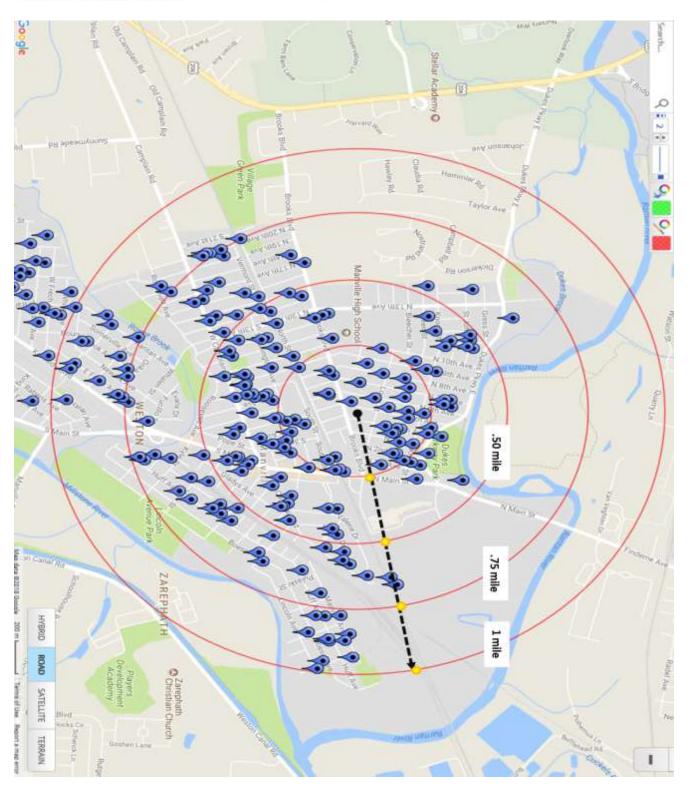
Student Distribution & Distance





54% of Roosevelt students live within .50 miles of the school. A student can walk that distance in 20 minutes. The furthest distance any current student from the school is 1.34 miles. Subtracting students from Lost Valley and Little Weston which are the longest trips, there are about 90 students who can easily walk to school every day via safe pedestrian facilities.

NEW JERSEY Safe Routes to School

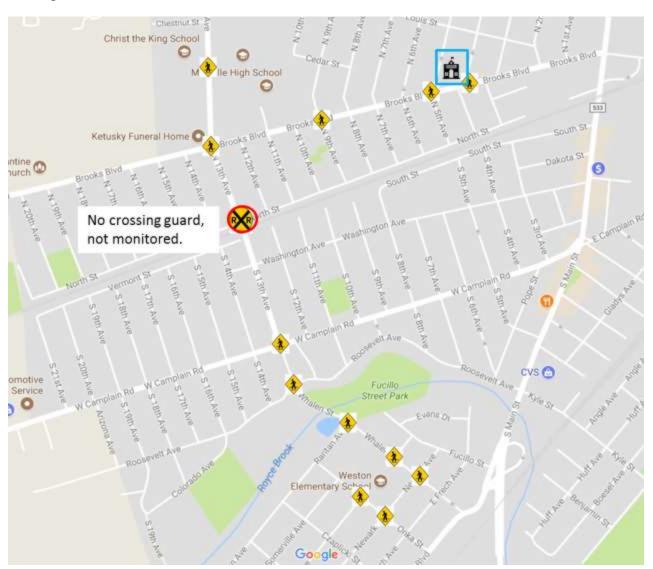




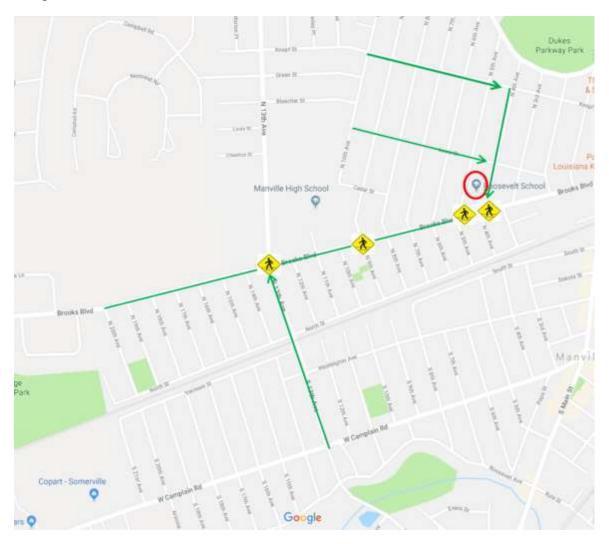
SECTION 1: Roosevelt School Zone Safety Issues

Roosevelt School is located at 410 Brooks Boulevard. The school opened in 1929 just as Manville split off from Hillsborough Township and became an independent borough. The school rides in an almost entirely residential area although Brooks Blvd is a main street in the borough. Because of its proximity to the former J-M plant, the area immediately around the school has complete sidewalks. There is no catchment area for each school, they are grade-specific so complete sidewalks around the school may be of limited value based on where a student lives in the borough.

Manville police train and provide crossing guards at several locations across the borough:



There are no established walking school buses or specific walking routes to Roosevelt School. Students predominantly walk from northside and southside neighborhoods. Most seem to travel along 13th Avenue to cross the train tracks then proceed to Brooks Blvd, or travel along Knopf Street or Louis Street to 4th Avenue. Because of the proximity of Manville High School and Alexander Batcho Intermediate School to Roosevelt, some students may walk longer distances with older siblings. There are a few students who bike, ride a scooter or skateboard to school. Observations along S.Main Street show there are almost no students walking in that area. It can be surmised no students are walking to school from Lost Valley. Concerns about distance, crossing S.Main Street and anecdotal concerns about safety walking past some business establishments have been cited by parents as the most common issues preventing students from walking. The Manville police no longer post crossing guards along S.Main as a result.





The most common way students get to school is driven in privately-owned vehicles. Over 66% of students are driven to or from school daily. Student drop off is along 4th Avenue. The school has designated a specific drop-off point.





High level view:



There are multiple locations where unsafe interactions between people and cars occur daily:

- There is a dedicated pick-up & drop-off point on the school-side curb of N. 4th Avenue.
- There are posted no parking zones from 8am 4pm on either side of the school.
- There is bike parking on the side of the school facing 4th Avenue.
- A parking lot owned by Christ the King Church is adjacent the school, it is heavily used at pick-up time.
- 4th & 5th Avenues are one-way streets which can accommodate parked cars on both curbs with a full travel lane in the middle.

Driver behavior at both drop-off and pick-up has become dangerous. Parents regularly make mid-block crossings on 4th Avenue with and without students even though a crosswalk is only yards away. They instruct children to sprint across 4th Ave so they don't need to leave their cars parked in the church lot at pick-up.



Parents also drop-off and pick-up on the opposite curb of 4th Ave creating situations where students may open doors and exit into the flow of traffic or need to run between stopped cars on either side of the street and cross the travel lane in the middle.

During morning drop-off, parents park in the drop-off line just beyond 'no parking' sign and wait in their cars until right before the bell rings to let their children out. This results in other cars waiting behind the stopped car blocking the line and drivers are forced to aggressively pull around a stopped car and cut into the drop-off line. .

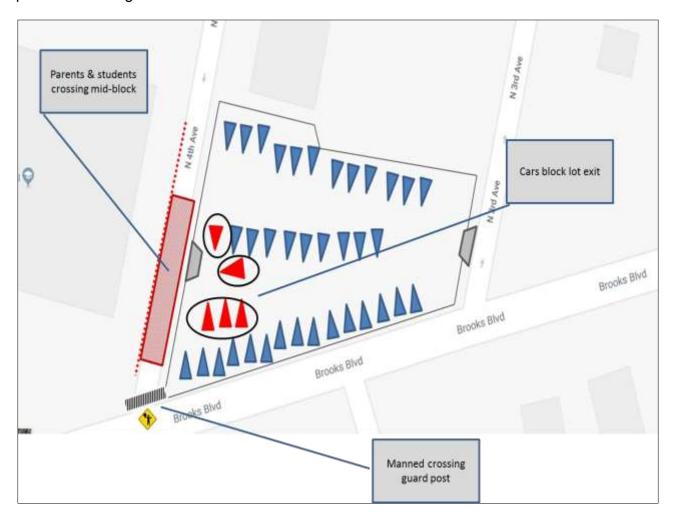


Most drivers regularly exhibit dangerous, "me-centric" behaviors in the parking lot. One or two cars block the parking lot exit, as well as other cars, to ensure they get out quicker. One driver in particular appears to do that daily. Most drivers don't look for children as they enter or exit the lot, they drive very quickly to get into and out of spaces, and cut off traffic turning onto N.4th Avenue as they exit. A contributing factor may be there is not enough time between dismissal at the various schools, particularly between Roosevelt and Weston School. Parents have stated there is a fine charged by schools if children are not in an aftercare program and parents are late picking them up.

Problems at morning drop-off are not as bad as afternoon pick-up; the greatest challenges occur at pick-up on early dismissal days.

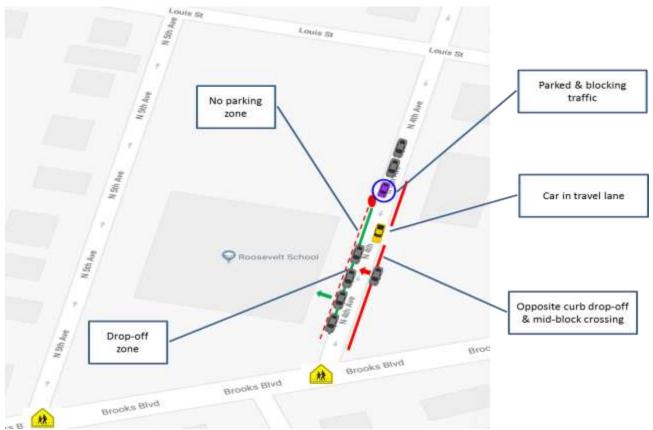
The school principal and parents are actively looking for solutions to make drop-off and pick safer. Sgt. Jeff Petrone from the Manville police and Andrea Bierwirth from Manville Borough are also part of that working group.

The working group is recommending posters to be hung along the fence which runs parallel to N.4th Avenue, blocking the N.4th Avenue entrance to the church parking lot, and a 'town hall style meeting' with parents in the parking lot at pick-up. Pick-up is much safer when the police have an officer at the school which is not a sustainable solution. The school has also asked the borough to extend no parking zones and has requested permission to paint the sidewalks and crosswalk to get more students and parents crossing at the safest location.



Afternoon pick-up





Morning drop-off



Crossing guard – 4th Ave & Brooks Blvd

NEW JERSEY Safe Routes to School



Cars lining both side of N.4th Ave at pick-up.





Cars parked in no parking zones on 4th & 5th during posted no parking times. Cars on N.4th will park in the morning drop-off line and wait til the last minute to drop students off so they don't need to spend time outside when it's wet or cold. This blocks the drop-off line and creates situation where cars aggressively cut into line.



Cars – circled in red – park between rows of cars so they can get out of parking lot as fast as possible. This blocks other cars from entering and exiting creating more aggressive driving habits. The orange gap where cars should be parked is used by students who crossed N.4th Ave to get to parents' cars. They believe that open spot is safe to enter the parking lot and aren't seen by cars trying to get around the 3-4 cars that intentionally block the exit every day.

Signage and safety warnings around the schools can be improved. Three of the 4 schools in the borough are on or just off Brooks Blvd. Although the speed limit has been reduced to 25 mph, cars regularly exceed it. Markings for the school zones are too close to the school to be effective. Many of the signs are small and outdated based on current standards in the 2009 edition of the Manual on Uniform Traffic Control Devices (MUTCD). Section 7B.08 covers School Sign (S1-1) and Plaques. The current standard calls for signs with a fluorescent yellow-green background which replaced school bus yellow.

Moving schools further away from the school will give drivers more notice that they are entering a school zone.





Signage on Brooks Blvd before N.3rd Ave and N.4th Ave

Another recommendation is installing flashing warning lights which can be limited to operate only during school hours and have an additional display when cars are exceeding the posted speed limit.

Signage can be solar powered to reduce some expense. A further recommendation is installing the signs around N.15th Ave heading towards N.Main Street and at N.2nd Ave when heading towards Route 206. Several variations are available.

Finally, installing speed tables between the school zones, placed between 11th and 6th Avenues, would have the effect of slowing traffic along Brooks Blvd. Cars tend to accelerate after they pass Manville High School, this would help ensure lower speeds. Speed tables can also be used as crosswalks as well to help identify safe pedestrian crossing locations.



Example: Flashing school zone signage with speed readout



Example: Speed table crosswalk



Example: On-street school zone markings



SECTION 2: Sidewalks and Pedestrian Facilities

Home and business owners are responsible for maintaining sidewalks in front of their property. The borough has responsibility for maintenance on their properties, and the school district is responsible for maintaining sidewalks around their grounds. The borough does have right of way where no sidewalks are in place and can install them on a home owner's property when funds are available. Several sidewalks along Brooks Blvd and around Weston School were repaired or installed in 2017. The borough is continuing to expand sidewalks and install curb ramps with truncated domes around the schools.

Overall, the physical condition of sidewalks across the borough is good, particularly around the schools. Complete sidewalks on at least one side of the street are rare in most parts of the borough however. The area from N.2nd to N.10th between Brooks Blvd and Dukes Parkway East has the most complete sidewalks, crosswalks and curb cutouts. This may be due to the fact these are the older homes in the borough and were located directly in front of the former Johns-Manville plant. Sidewalks may have been installed to help employees reach work when cars were rare or because Roosevelt was the largest school in the borough when it opened in 1929. Sidewalks between N.10th to N13th are not as complete even though the middle school and high school are located there.

There are significantly fewer sidewalks in the other 3 sections of the borough – Southside, Weston and Lost Valley. Sidewalks are complete allowing students to safely get from Roosevelt School to the Manville Public Library on S.10th Avenue or to N.Main Street. There is a controlled intersection at Brooks Blvd & N.Main Street which would allow students to reach businesses such as Quik Chek or fast food at the Marketplace At Manville mall.



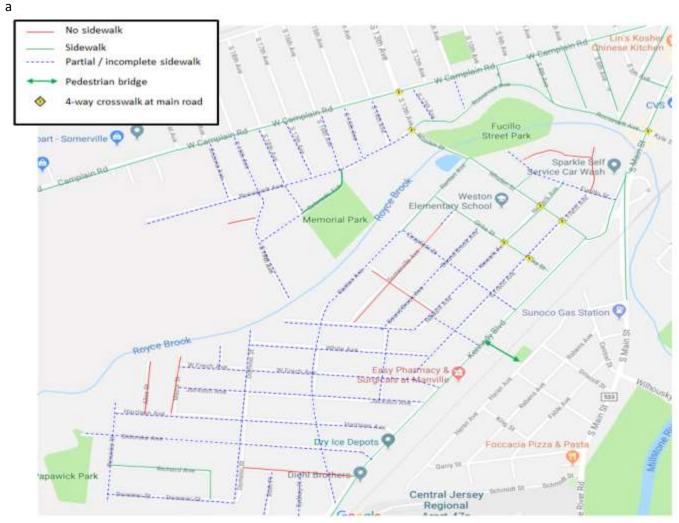


Student walking home near Weston School

The current sidewalk map as of February 2018:



Dukes Parkway East to Camplain Road



Camplain Road to JFK Parkway



There are common issues with sidewalks, crosswalks and curb cutouts:



Cracked sidewalks impede persons with mobility impairments (wheelchair, walker, visually impaired) or families pushing strollers, wagons or grocery carts.



Stretch of damaged sidewalk on Brooks Blvd north of 13th Avenue





Cracked and partially blocked sidewalk.



Sidewalk upheaval caused by tree roots on Brooks Blvd between N.11th & N.10th





Seasonal flooding (Brooks Blvd just north of 13th Ave)

NEW JERSEY Safe Routes to School

The largest challenge is not sidewalk maintenance but incomplete sidewalks. In some cases, sidewalks only need right of way through one or two homeowners' property to complete the full length of the block.

















Some crosswalks are in need of repainting, particularly around the intersection of N.13th and Brooks Blvd which is a high traffic area.





Curb cuts or engineering which prevents them from being installed presents a common problem. On several streets from N.14th through N.19th, catch basins are built into the curb which prevents a curb cut from being installed. In several locations, the sidewalk is up to 3" below the height of the curb creating a tripping hazard, particularly for people with mobility issues.



N.14th Avenue



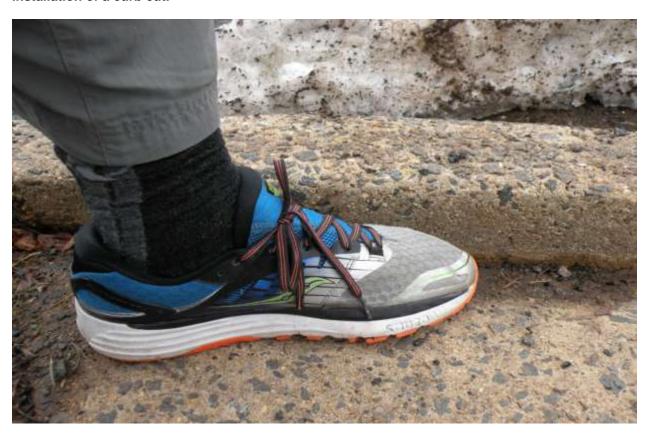
Missing curb cut on opposite corner with snow removal issue in the curb cut.



Missing curb cut on one corner across from Manville High School



Curb drop with pencil highlighting perspective with catch basin on opposite corner preventing installation of a curb cut.





Home owner issues have also been identified including seasonal snow removal and maintaining vegetation which is overgrown and blocking sidewalks in several areas.









Louis Street & N.5th Ave, March 2018

It's important to note, Manville Borough has continually made improvements to sidewalks, intersections and pedestrian facilities. There is a focus on making Manville more walkable and bikeable which will continue to expand as grants or other funding is available.



Work in progress - new sidewalks and truncated domes with faded crosswalks and snow removal issues, Brooks Blvd & $N.9^{th}$ Ave.

NEW JERSEY Safe Routes to School



New curb ramps with ped head at N.13th & Brooks Blvd





NEW JERSEY Safe Routes to School









Improvements along Brooks Blvd and Louis Street around Roosevelt School.





New sidewalks near Weston School.





Public art installation, Manville High School



SECTION 3: Train Tracks

Manville is bisected by two major rail lines, Norfolk Southern and CSX. More than 20 people have been killed by trains in the borough's 90-year history with the most recent fatality on July 4, 2017. From roughly 5th Avenue to the end of the town line beyond 21st Avenue, the tracks are at grade with no fencing or other barriers blocking access to the tracks. The only safe crossing is at S.13th Avenue.

There is strong evidence train tracks are crossed at 9th Avenue & North Street. There is also evidence of train tracks being crossed unsafely at other locations as well. People walking along the train tracks is also a common sight. When RideWise taught pedestrian education at Weston School, the former school superintendent requested focus on students crossing only at safe locations and never play on train tracks.



Goat trail across gravel path leading off 9th Avenue, foot prints are in snow on opposite side of tracks



Footprints across tracks at N.6th Avenue & North Street



Memorial from fatality



Tracks are common de facto shortcut within borough



Unprotected tracks at grade level near N.20th Avenue

Manville Borough is responsible for 13th Avenue but the rail right of way is controlled by Norfolk Southern and CSX. There are limited actions the borough can take on the right of way itself. Fencing the entire length of the tracks on borough property at grade level would be cost prohibitive.





Manville Borough has painted crosswalks leading to the train track; there are pedestrians gates but no markings on the right of way.



Train track safety education:



In-school pedestrian education, Weston School 2017

High school and older borough residents regularly cut across train tracks from 4th or 5th Avenues up to 21st Avenue. The right of way is also used as a shortcut rather than traveling to Brooks Blvd, North Street or Camplain Road to cover the same distance. It is very difficult to change behavior in older residents but there is an opportunity to provide safety education for grades 1-4 at Weston and Roosevelt schools. RideWise provided in-school education at Weston School in 2017 and 2018. A component specifically requested in 2017 was student safety crossing train tracks.

RideWise is able to provide education specific to Manville Borough which includes safely crossing streets and the train tracks only at 13th Avenue. This can be delivered at the schools' convenience during physical education class or activity periods. It can also be included before students start walking trips to the Manville Public Library from Roosevelt School or ABIS.

SECTION 4: Recommendations & Action Plan

The Safe Routes to School Action Plan is categorized into the "Five E's": Education, Encouragement, Enforcement, Engineering and Evaluation. Additionally, each recommendation in the Action Plan considers two parameters – time and cost. Many solutions can be implemented quickly with no-to-low cost while others which require specific funding, permitting or construction may take on or more years to complete.

The tables below identify preliminary recommendations specific to Roosevelt School and its immediate area. To realize the full benefit of the SRTS program, it is suggested this school travel plan be used to apply for a SRTS grant to fund and fully implement all the action steps.

Timeframe Definition	Cost Model Definition
Short-term = 0 to 3 months	Low = less than \$2500
Mid-term = 3 to 6 months	Medium = between \$2500 - \$10000
Long-term = 6 months or longer	High = more than \$10000

Education – Programs which educate students, parents and the public about safe walking and biking.

Action Item	Responsible Party/Person	Delivery Timeframe	Cost
Invite RideWise to provide annual, in-school pedestrian education to all 3 rd grade students during physical education or activity periods. Content also includes safety around train tracks.	School, RideWise	Short-term	No cost
Hang banners on N.4 th Ave fence with safety-specific messages for parents.	School	Short-term	Low
Create / update and share school handbook to document arrival and dismissal policies covering both full school days and early dismissal days.	School	Mid-term	Low
Invite Manville Police to present during Back To School night about speeding, traffic safety, parking restrictions in school zones and hand out tip cards on how to make school zone safer.	School, Police	Mid-term	Low



Provide in-school safety messages during morning	School, RideWise	Short-term	No cost
announcements and conduct safety poster contests at			
the school.			
Use school's social media to spread awareness and	School	Short-term	No cost
messaging about school zone safety.			
Include agenda item on parking lot norms, school safety	School, PTO,	Mid-term	No cost
and using crosswalks to help keep children safe at Back	Spanish-speaking		
to School, PTO and other parent-focused meetings.	parent group		

Encouragement – Programs to encourage and promote regular, sustainable biking and walking to school.

Action Item	Responsible Party/Person	Delivery Timeframe	Cost
Encourage more students to bike and walk to school by connecting with parents to change travel mode through Back to School, PTA, social media and other means. 54% of students live within half a mile of the school but 66% are driven to or from school every.	School district, RideWise, School, PTO	No cost	No cost
Dismiss students who bike or walk to school 5 minutes earlier than students driven to school. Allow those students to leave the area before vehicles start to move. This encourages other students to walk or bike so they can 'leave early'.	School	Mid-term	No cost
Continue participating in <i>International Walk to School Day</i> in October, <i>Walking Wednesdays</i> year round, and start celebrating <i>Bike to School Day</i> in May.	School, RideWise	Short-term	No cost
Paint sidewalks and crosswalks to direct students and parents to safe crossing locations along N.4 th Avenue.	School, Manville Arts, Borough	Mid-term	Low cost
Use school website, message board in front of the school, digital message board at the high school and	School	Short-term	No cost



social media accounts to advertise walk / bike to school events and broadcast safety messages.			
Implement monthly poster contests focused on a specific safety themes, winning entry hung up in the school for the month.	School, RideWise	Short-term	No cost
Re-start in-school Safety Patrol. Give students active role helping to make school zones safer by directing younger students to use crosswalks.	School	Short-term	No cost

Enforcement – Actions taken to improve safety for those walking and biking to school.

Action Item	Responsible Party/Person	Delivery Timeframe	Cost
Extend no parking zones on N.4 th Avenue to allow for only pick-up or drop-off on the school-side curb.	Borough	Mid-term	Low cost
Conduct speed enforcement on Brooks Blvd during school hours.	Police, Borough	Mid-term	Medium cost
Enforce parking laws on N.4 th Avenue	Police, Borough	Mid-term	Medium cost
Students without helmets after one warning are not permitted to ride to school until they comply with state law & school policy.	School	Short-term	No cost
Place variable message board along Brooks Blvd reminding drivers of speed limit in school zones. Recommendation is at start of the school year (Sep-Oct)	Police	Mid-term	Medium cost
Close N 4 th Avenue entrance & exit to parking lot during school dismissal to reduce direct vehicle traffic further away from school's main exit	Borough, diocese	Long-term	High cost
Enforce timely snow removal and property maintenance ordinances to ensure sidewalks are not blocked by overgrown vegetation, leaves or snow & ice.	Borough, home owners, businesses	Mid-term	Low cost



Engineering – Infrastructure installation or improvement that improve walking and biking environment and increase safety.

Action Item	Responsible Party/Person	Delivery Timeframe	Cost
Install flashing signs with variable speed monitoring along Brooks Blvd.	Borough	Long-term	High cost
Update school zone signage to current MUTCD standards and relocate existing signage further from the schools to alert drivers sooner they are entering a school zone.	Borough	Long-term	Medium cost
Paint "SLOW SCHOOL ZONE" on Brooks Blvd entering school zones.	Borough	Mid-term	Medium cost
Continue to extend sidewalks across the borough.	Borough	Long-term	High cost
Restripe crosswalks.	Borough	Short-term	Medium cost
Add speed tables between the school zones (between 11 th and 6 th avenues) on Brooks Blvd as traffic calming devices.	Borough	Long-term	High cost
Redesign school side of N.4 th Ave as no parking from Brooks Blvd to Louis Street. Repaint curb to reflect no parking zone.	Borough	Mid-term	Low cost
Install ADA-compliant curb ramps and truncated domes at corners. Extend sidewalks in locations where catch basin is at the curb to allow them to be installed across the borough.	Borough	Long-term	High cost
Work with Norfolk Southern and CSX to identify solutions to make rail crossing at N13th Ave safer for pedestrians. Solutions could include adding signage or extending painted crosswalk into rail right of way.	Borough, rail companies	Long-term	High cost
Repair cracked and sidewalks displaced by tree roots.	Borough, home	Long-term	High cost



Fix curb drops between inside of the curb and the	owners,	
sidewalk	businesses	

Evaluation – Monitor and evaluate progress towards increasing the number of children biking and walking by increasing safe infrastructure, policies and practices.

Action Item	Responsible Party/Person	Delivery Timeframe	Cost
Conduct annual school travel tallies to measure how effective the SRTS program and safer infrastructure has been increasing the number of students walking, biking or carpooling instead of arriving in singe vehicles.	RideWise, school	Long-term	No cost
Establish a mechanism for collecting feedback from the school, PTO, parents and the borough to address issues and continuously improve safety.	School, PTO, Parents	Long-term	Low cost
Conduct regular speed and traffic studies around the schools.	Police	Long-term	Medium cost
Conduct online resident survey after planned Main Street road diet completes in 2020 assessing if residents feel safe walking or allow their children walk to school in Manville	Borough	Long-term	Low cost

Cost Estimating

The NJ SRTS program has provided an estimating tool for determining requirements and expected costs associated with implementing solutions recommended in this travel plan. It can be found at:

http://www.saferoutesnj.org/wp-content/uploads/2013/07/SRTS-Costs-August-2017-update.pdf

Conclusion

Community priorities around Roosevelt School are improved safety for students, reducing the speed of traffic in the school zone along Brooks Blvd, and encouraging students to regularly walk and bike to improve health & wellness. Recommended education, encouragement, enforcement, and evaluation efforts should be pursued as practicable within the borough school district's capital plans.

Key engineering recommendations implemented across the borough, particularly on Brooks Blvd and around the school zones, will slow traffic, make street crossing locations more visible and safer, and repair or install pedestrian facilities such as curb ramps and sidewalks to make mobility more accessible and equitable in Manville.

Re-striping crosswalks should be done as soon as possible and regularly as they fade. Students are crossing at intersections where cars are turning and not stopping for pedestrians in crosswalks which is a state law. The school zone can be better marked to slow traffic at dismissal and arrival, alleviate congestion and help reduce dangerous situations occurring at pick-up

This school travel plan should be used by the school district or borough to apply for SRTS infrastructure grants to make the sidewalks and neighborhoods around Roosevelt School safer for students to walk and bike to school. Given the relatively small size of the borough, improvements near the schools will have a highly beneficial impact for all residents in Manville. Improved pedestrian / cyclist safety will help adults and children reach local parks and playgrounds, the library, shopping and other destinations in the borough. It will allow playgrounds or sports facilities, like the basketball courts behind Roosevelt School, to be accessible while allowing students and everyone in the community to be more active, mobile and connected to their community.