

August 2015

City of Vineland

Safe Routes to School Travel Plan



Max Leuchter Elementary School



Public Health
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City of Vineland Department of Health





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Introduction

The City of Vineland, located in Cumberland County, is the largest city in the state of New Jersey by area. Max Leuchter Elementary School is one of nine public K – 5 schools within the City of Vineland. The staff of Max Leuchter Elementary School and members of the local government recognize the correlation between active transportation and the health of the student population. In an effort to increase the number of children that walk or bike to school, create safe walking and biking environments, and reduce traffic congestion at arrival and dismissal times, the City of Vineland has chosen to develop a School Travel Plan.

This School Travel Plan incorporates the “Five E’s” of Safe Routes to School (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 and bike to school. The plan was created through guidance from the faculty of Max Leuchter Elementary, Vineland Police Department, and the City of Vineland.

School Description

Max Leuchter Elementary School (Map 2) is located at 519 North West Avenue in a residential area roughly one block north of Park Avenue and seven blocks south of Oak Road. Max Leuchter is a small public school with approximately 253 students in grades K-5. The student teacher ratio is 16.3 students to 1 teacher, which is the highest ranked among all elementary schools in the Vineland City School District. Students with disabilities make up 7% out of the entire student body.

Vineland is a diverse and multicultural, urban community with approximately 60,854 residents. The Caucasian population accounts for 49.2% of the population, Hispanic population 34.9%, African American population 12.2%, and Asian population 1.7%. Of the 202 students who attend Max Leuchter Elementary, 60.9% are Hispanic, 17.8% are African American, 13.4% are White, and 1.5% are Asian.

There are 18 apartment complexes within a 2-mile radius of the school, one of which lies across from the school, Herola Court Apartments (Figure 1). There are also several parks located within a 2-mile radius of Max Leuchter Elementary (Map 1). Four of these parks lie directly outside of the two-mile buffer around Max Leuchter Elementary School.

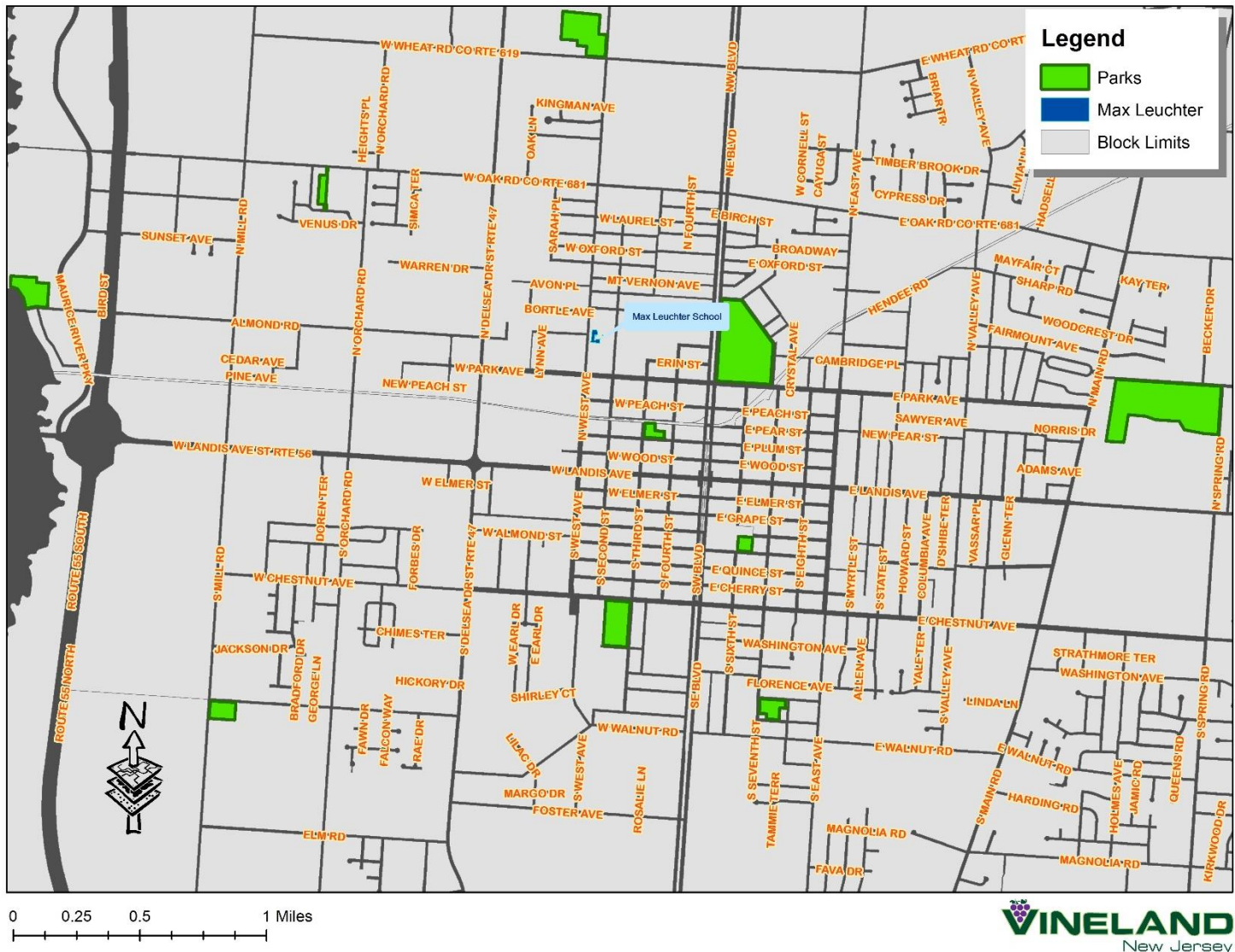
Figure 1. Herola Court Apartment Complex



Table 1. Parks close to Max Leuchter Elementary School

Name	Location	Amenities
Landis Park	600 E. Park Ave.	Ball fields, basketball and hockey courts, batting cages, picnic areas, disc golf, and walking trail
Carl V. Arthur Park	N. 3 rd St. & W. Plum St.	Basketball court, a tot-lot, in-ground swimming pool
Roberto Clemente Park	7 th & Humbert St.	Softball fields, tennis courts, basketball courts, a tot-lot, and handball court
Cunningham Park	1676 N. West Ave.	Little League fields, Senior League fields, practice areas, clubhouse refreshment stand, restrooms, and playground equipment
Gonzales Park	301 S. East Boulevard	Playground equipment, basketball courts, softball field, and indoor swimming pool (open when school is not in session)
Normandie Lane	W. Chestnut Ave. & S. 3 rd St.	Lighted midget football field, football practice areas, and Babe Ruth baseball field, tennis courts, basketball courts, and a tot-lot
Frank A. Tejas Park	Mercury Way & Neptune Drive	Playground equipment and tot-lot equipment
Joseph E. Romano Sports Complex	1911 E. Maple Ave.	Soccer fields, a baseball field, walking tract, football field, and all-purpose field
Westside Park	2680 W. Almond Rd	Swimming area, picnic area, and playground equipment
Mill & Walnut Road Recreational Area	1271 S. Mill Road	Softball field, basketball courts, volleyball courts, tot-lot, and in-line hockey rink

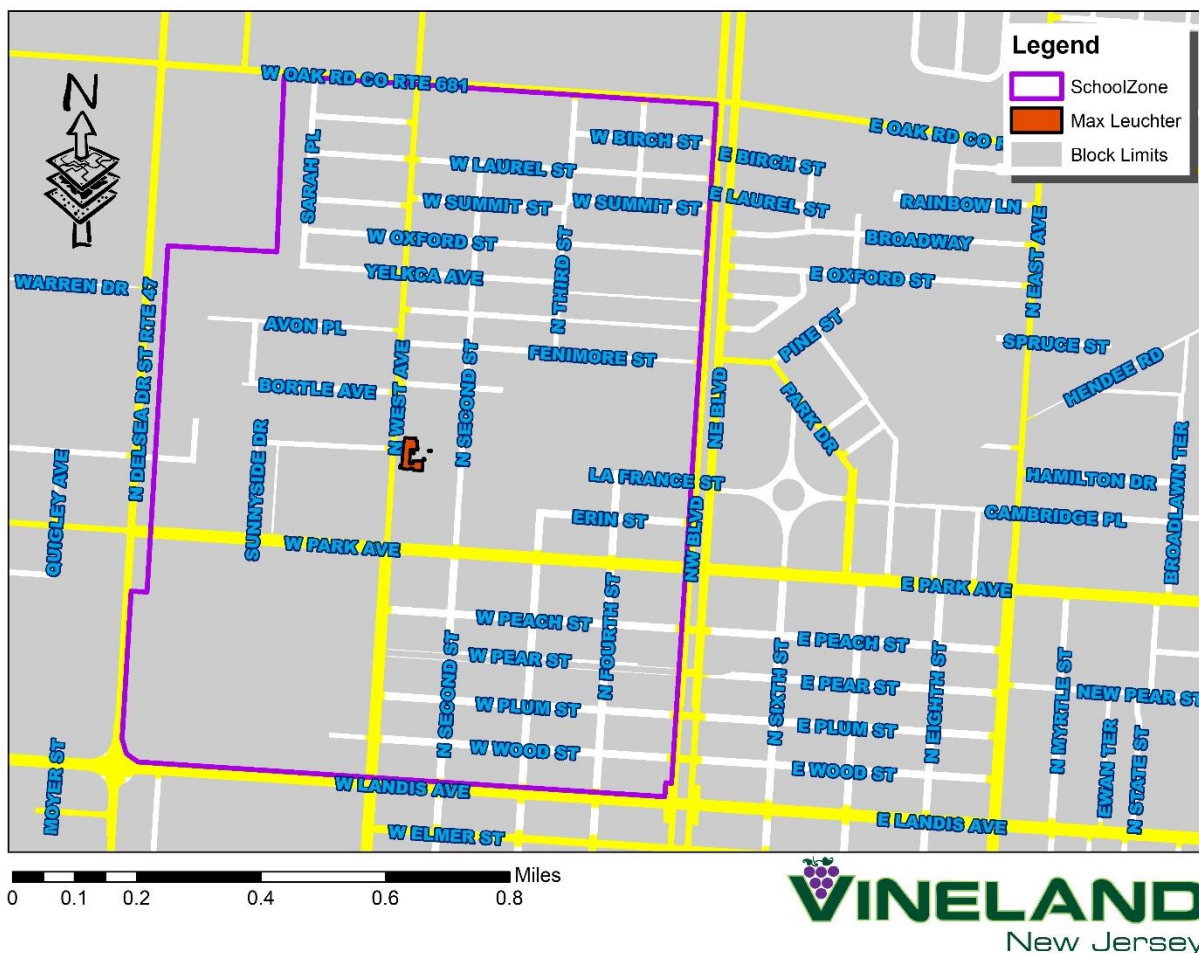
Map 1. Parks Close to Max Leuchter Elementary School



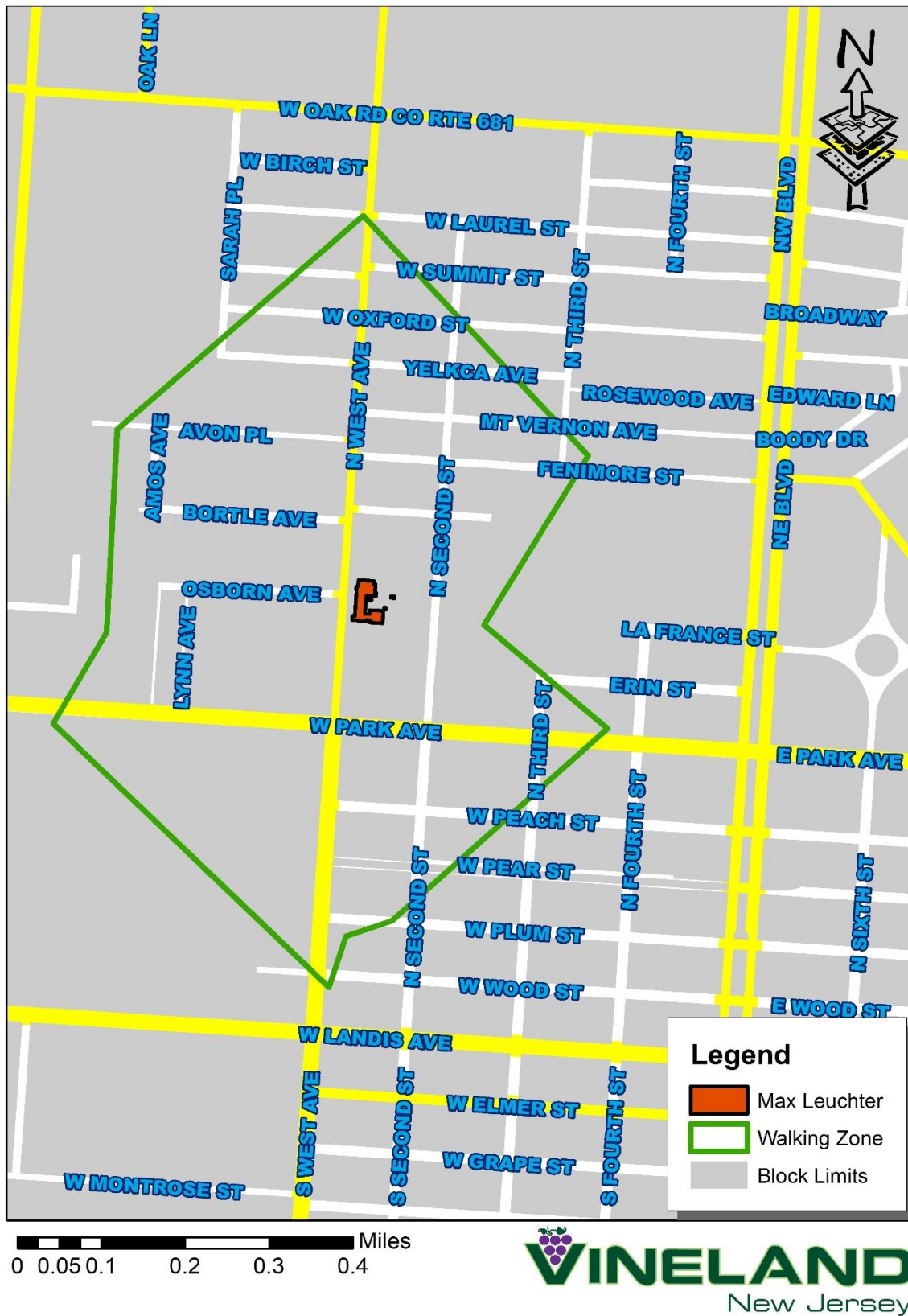
There are many major street corridors in Vineland, with Landis Avenue being the main east to west street corridor. The city has recently completed some streetscape improvements to Landis Avenue such as resurfacing areas of sidewalks, street trees, bike bollards, building facades, new street lighting, and overall curb appeal. Landis Avenue has been proposed to be repaved from Myrtle Street to East Boulevard.

Due to Vineland's low economic status, Vineland School District is considered an Abbott school district. More than 13% of Vineland residents are living in poverty and the unemployment rate is 4% higher in Vineland than it is in the entire state. Seventy six percent of the students at Max Leuchter Elementary are eligible to receive free or reduced-price lunches. Recent studies have shown that lower-income children have higher obesity rates, which makes active modes of transportation even more important to the health and well-being of school-age children in Vineland. Nearly 40% of the children in Vineland are overweight or obese compared to the national average of 21%. According to Active Living Research, "people who live in neighborhoods with sidewalks on most streets are 47% more likely to be active at least 30 minutes a day."

Map 2. Max Leuchter Elementary School Zone



Map 3. Max Leuchter Elementary School Walking Zone



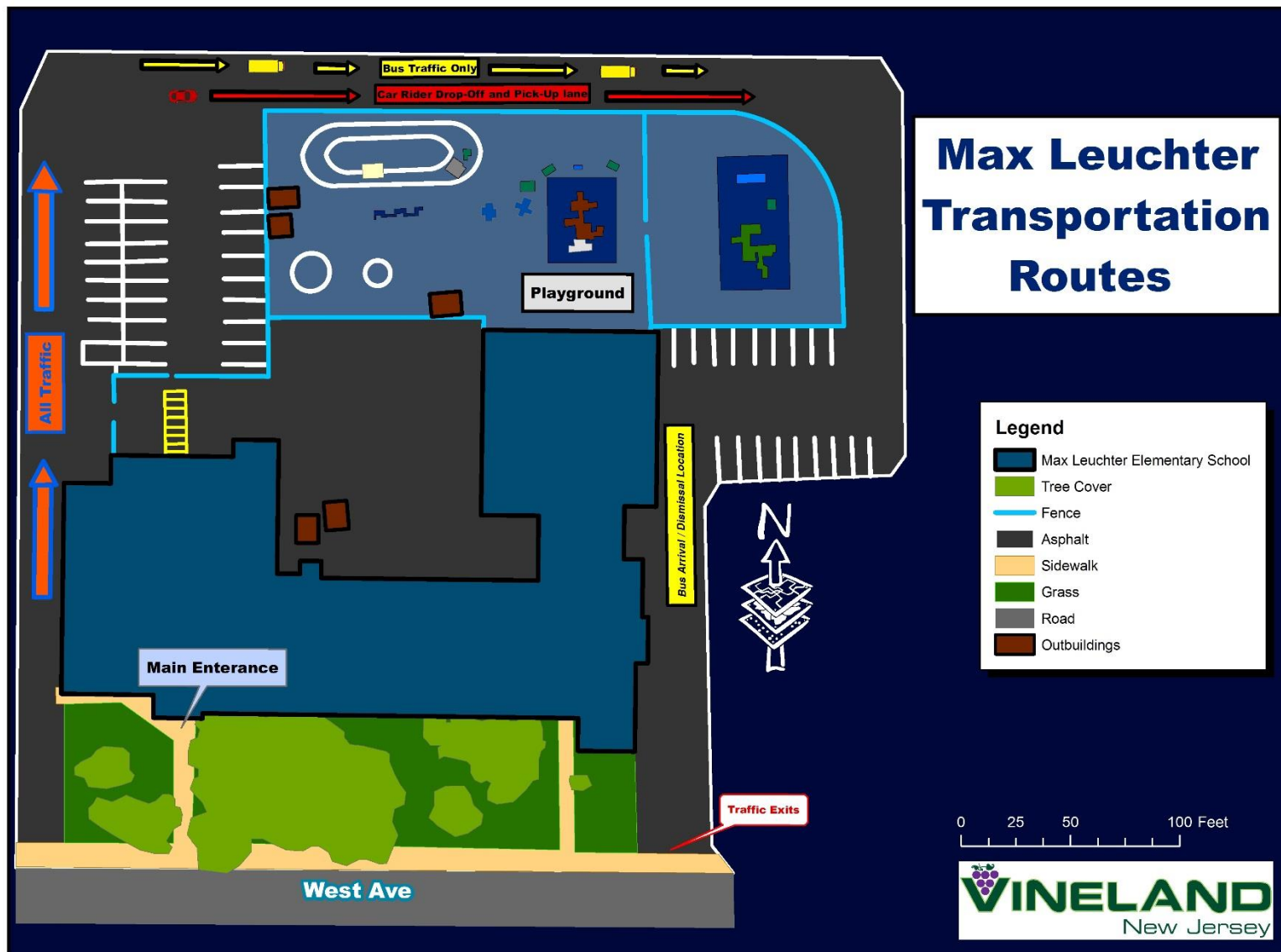
Existing Policies and Practices

Due to its size, Vineland School District is not considered a walking district. However, students are permitted to walk or bike to school. Students that bike to school are required to wear a helmet. The Vineland Police Department stations one crossing guard directly in front of the school. Map 3 shows the size of the walking zone for Max Leuchter.

During student arrival and dismissal times, teachers are assigned various monitoring posts on school grounds to monitor pedestrian activity. Students are permitted to enter the building at 8:45 AM with the exception of students enrolled in the YMCA program who are permitted to enter before 8:45 AM. Walkers enter through the main entrance of the school. Car riders enter through the rear of the playground gate where staff greet them and watch them enter the building.

Dismissal begins at 3:40 PM. Car riders, bus riders, and walkers are dismissed at different times and locations. Car riders are the first to be dismissed followed by walkers, bus riders, and lastly the afterschool YMCA program. Car riders are dismissed via the rear of the school building through the playground and are escorted to the cars in which security has collected parent pick-up cards. Walkers are dismissed through the front doors of the school. Bus riders are also dismissed through the front doors, but one at a time in the order of the bus's arrival. Bicycle riders are dismissed from the playground and either ride their bicycles through the building or around the side of the building, increasing safety concerns due to the car and bus traffic during dismissal. School staff developed an arrival and dismissal transportation route (Map 4) as a calming measure on the school property.

Map 4. Max Leuchter Transportation Routes



Walk/Bike Barriers & Opportunities

Working Groups and Partnerships

Table 2. Working Groups and Partnerships		
Organization	Role/Responsibility	Contact
YMCA Project Director	SRTS Program Assistance	David Calderetti, Project Director Email: dcalderetti@ccaymca.org
Vineland School District	Program Administration & Implementation	John Frangipani, Assistant Superintendent Email: jfrangipani@vineland.org
Max Leuchter Elementary School	Implementation	Carmella Heer, Principal Email: cheer@vineland.org
Max Leuchter Elementary School	Implementation	Sylvester Cifaloglio, PE Teacher Email: scifaloglio@vineland.org
City of Vineland Police Department	Safety Education and Enforcement	Timothy Codispoti Email: tcodispoti@vinelandcity.org
City of Vineland	Engineering Project Implementation	David J. Maillet, Principal Engineer Email: dmaillet@vinelandcity.org
City of Vineland	Engineering Project Implementation	Ruben Bermudez, Mayor Email: rbermudez@vinelandcity.org
City of Vineland	Implementation	Emma Lopez, Health Educator Email: elopez@vinelandcity.org
The Brain Injury Alliance	Safety Education	Sue Quick Email: squick@bianj.org
Cross County Connection	SRTS Program Assistance	Sean Schweitzer Email: schweitzer@driveless.com
City of Vineland	GIS	Emmanuel John Email: ejohn@vinelandcity.org

This plan was developed by the City of Vineland Health Department in partnership with the Vineland Engineering Department, Cross County Connection Transportation Management Association, and the C.C.A.Y.M.C.A. The Vineland Health Department met with the Assistant Superintendent on November 19, 2014 to discuss Safe Routes to School Programs for Vineland Public Schools. The Vineland Health Department along with the C.C.A.Y.M.C.A presented Live Healthy Vineland at a principal's meeting on March 18, 2015. At the meeting, Safe Routes to School Programs were discussed and promoted. Upon completion of the meeting, Carmella Heer, principal of Max Leuchter Elementary School requested that a Travel Plan and a Bike to School Day be organized for the school. With Administrative support, student and school information was collected.

Travel Patterns

Student Travel Survey

A Student Travel Tally Survey was conducted the last week of May 2015. Tally results as reported by the school are shown in Table 3. The school-wide Student Travel Tally Survey revealed that most students (70%) ride the bus to school. Approximately 14% (11 students) of the 75 students that are not bussed indicated that they walk/bike to school equaling only 4% of the total population.

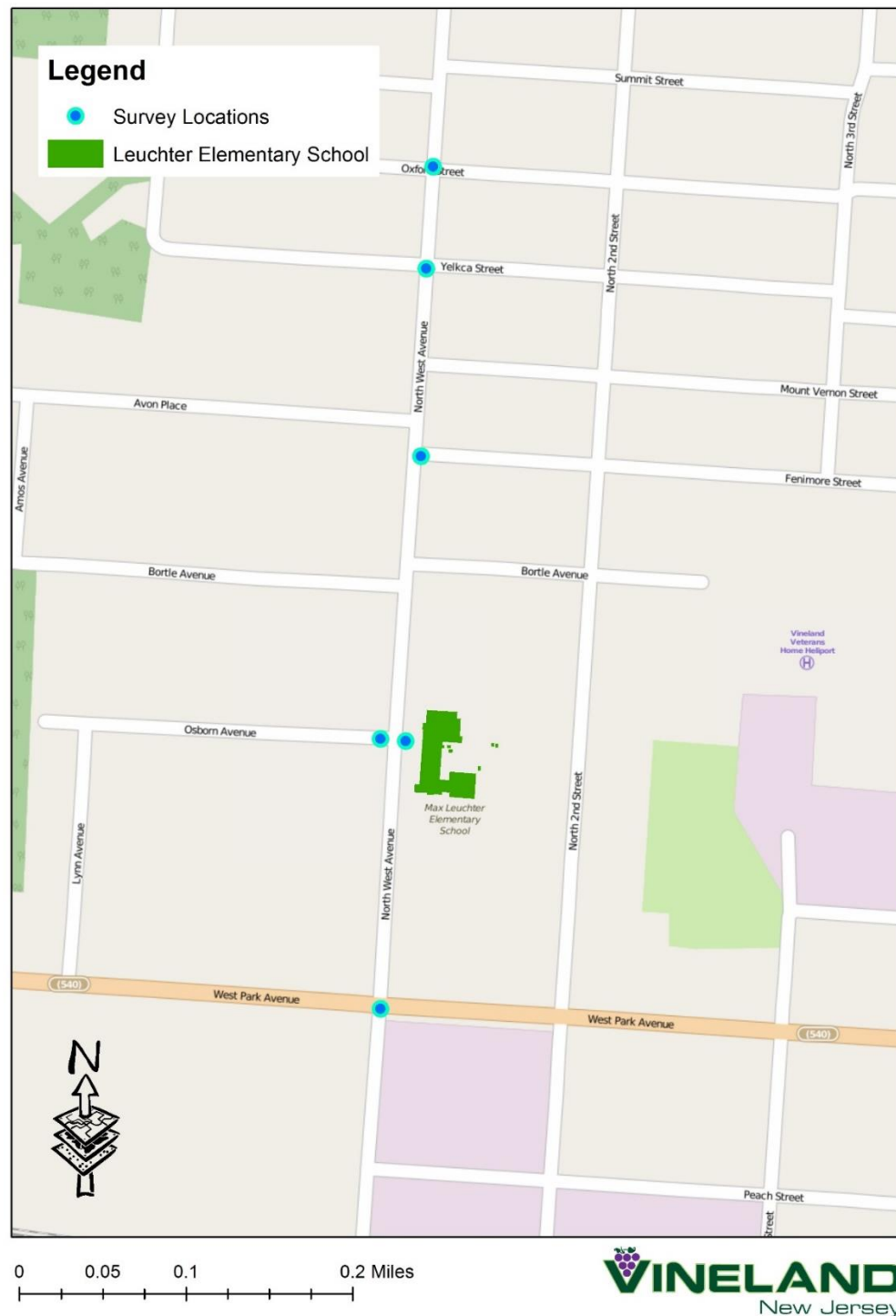
Table 3. School Travel Information, Max Leuchter Elementary School		
Location	519 North West Avenue	
Grades	K - 5	
Arrival Time	8:35 AM – 9:20 AM	
Dismissal Time	3:30 PM – 4:05 PM	
Student Participants/Student Population	245 / 253	
Travel Mode	TOTAL	PERCENTAGE
That are bussed	178	70%
That are not bussed	75	30%
That walk	10	13%
That Bike / Scooter	1	1%

AM/PM Pedestrian Traffic Survey

Two surveys of pedestrian travel were performed on June 16, 2015; one in the hour before school and one in the hour after school. The morning count was performed from 8:30 AM to 9:30 AM. The school day for Max Leuchter Elementary School begins at 9:20 AM and ends at 3:30 PM. The afternoon count was performed from 3:15 PM to 4:15 PM. The goal of the survey was to determine the general volume and direction of student pedestrians to and from school. There were 5 individuals stationed at intersections near the school which during an initial investigation were expected to generate the most foot traffic. Map 5 displays the locations of 5 observers. One individual observed Osborne Avenue and Max Leuchter Elementary School.

The surveys did not discriminate between student and non-student traffic. Those involved in the survey indicated that the vast majority of pedestrians appeared to be students. The sheets used to tally the traffic included spaces to count both pedestrians and bicyclists, as well as a space for noting instances of jaywalking, biking against traffic, and bikers disregarding traffic signals and signage.

Map 5. Pedestrian Traffic Survey Locations



AM/PM Pedestrian Traffic Survey Results

The surveys revealed that the majority of bicycle and pedestrian travel was on West Avenue, north of the school, as was expected given the student distribution within the Walking Zone. The volumes were also consistent with the results of the Student Travel Tally Survey.

Previously mentioned, participants were asked to note instances of jaywalking, biking against traffic, and bicyclists not obeying traffic signals (including stop signs). Only a couple of incidences of jaywalking were observed and none of bicyclist infractions.

An interesting observation was that a number of parents parked on Osborne Avenue and walked across West Avenue to the school to pick up their students. There is a mid-block crosswalk at the school, which is manned by a crossing guard.

Walking Audit

A walking audit was conducted on July 17, 2015 (Figure 2) by the civil engineer for the City of Vineland, Vineland Health Department, CCAYMCA Project Director, and the Safe Routes to School Coordinator for Cross County Connection to evaluate walking and biking conditions, as well as to identify areas in need of infrastructure improvement. The participants toured the school grounds and investigated West Avenue from Park Avenue to Laurel Street, Park Avenue from Third Street to approximately 500 feet west of West Avenue, and from Second Street from Park Avenue to Bortle Avenue. The audit was held in warm weather during the morning and into the early afternoon.

Bicycle Facilities

There are two bikeways in center city Vineland. One is located on Wood Street and runs the length of the entire street, extending from East Avenue to West Avenue. The other is located on Elmer Street (Figure 3) and also runs the length of the entire street, extending from West Avenue to East Avenue. However, both of these bike lanes are outside of Max Leuchter Elementary's School Zone.

Bicycle parking is not available at Max Leuchter Elementary School. Students currently park their bicycles in the back of the school. Approximately 21 students currently ride their bicycles to school. Max Leuchter saw an increase in the number of students walking and biking to school at the conclusion of their first annual bike to school day, making bicycle parking a top priority.

Figure 2. Walking Audit



Figure 3. Elmer Street - Bike Lane



Traffic Crash Report

Crash data from the last five years was reviewed for accident rates, types, and severity for the areas surrounding the school where the majority of pedestrian traffic was observed in the Traffic Survey. The accidents were from the following areas:

Table 4. Traffic Crash Report Analysis

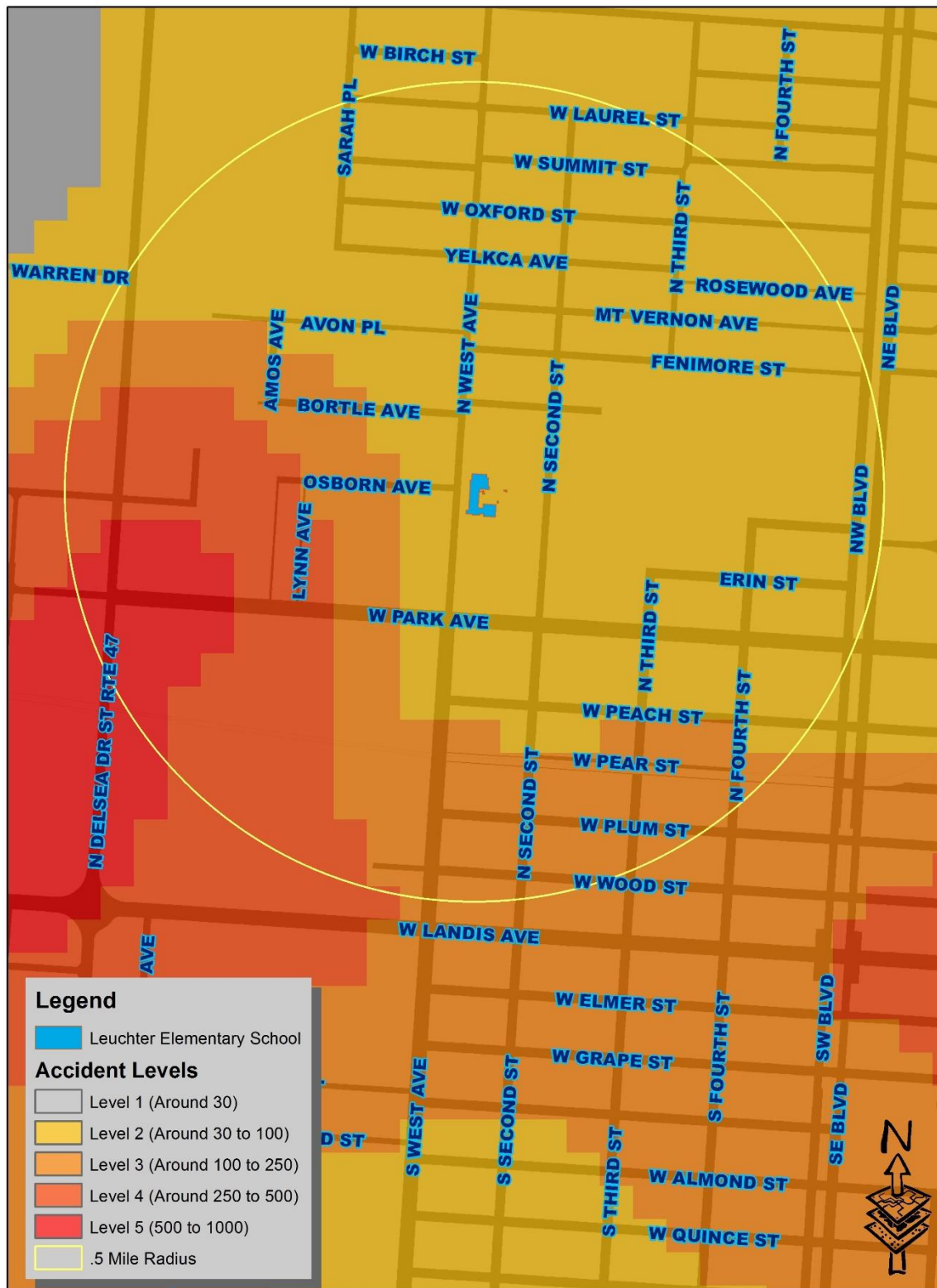
Street Name	From	To
West Avenue	Park Avenue	Laurel Street
Park Avenue	Third Street	Lynn Avenue
Second Street	Plum Street	Summit Street

A review of the crash data from the previous five years revealed a total of 109 accidents two of which involved pedestrians. None of the accidents involved bicyclists. Park Avenue had the highest accident rates with a total of 79 accidents. Approximately 62 percent of the accidents resulted in property damage only. Thirty eight percent of the accidents resulted in injury. No fatal accidents occurred within the limits during the study period.

No pedestrian injuries were found on Second Street or West Avenue during the study period, however one pedestrian injury was found on Park Avenue. Within the study area, Park Avenue can be considered a “Minor Arterial” roadway. Roads of this type carry a large volume of traffic, generally beyond municipal borders, and connect to collector streets and local roads. West Avenue would be considered a “Major Collector” roadway. Roads of this type carry traffic from minor collectors and local streets to the arterial roadways. The remaining streets are local streets.

The predominant accident type on Park Avenue are “Right Angle” (26), with “Same Direction – Rear End” accidents (23) also making up a large portion. Right angle accidents are common on wide roadways, especially roads without center two way left turn lanes and dedicated left turn lanes at intersections. Rear end accidents are common on roadways with traffic signals.

Map 6. Crash Data Analysis



0 0.125 0.25 0.5 Miles

VINELAND
New Jersey

Travel Safety Concerns

Travel safety concerns were identified through walking audits and meetings with school staff, who related parent feedback they have received. Three major safety concerns were identified:

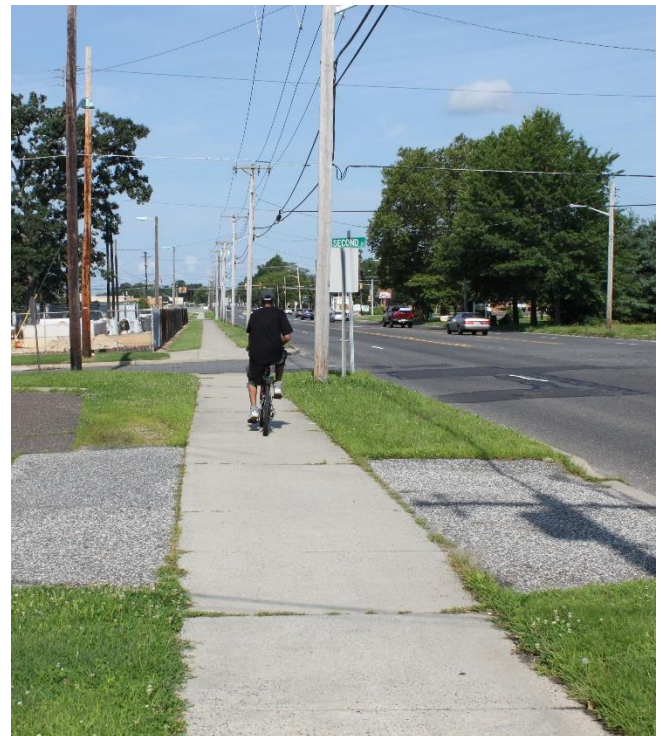
School Site – There is a one way entrance and exit for Max Leuchter Elementary School. Therefore all traffic enters and exits the school site at one location. Walkers and bike riders are dismissed between car riders and bus riders. Bicycle riders exit the site by either going through the school building and out the front or around the side of the building where cars and busses enter. It was noted during the PM Pedestrian Survey that students were being picked up on the side street, Osborne Ave (Map 3), directly in front of the school. Osborne being a small side street has caused considerable vehicle congestion due to cars being parked on both sides of the street close to the intersection. There is little room to accommodate parent vehicles when the busses utilize the site.

Bicycle Facilities – Biking is a great way to for children to get to school and add more physical activity into their day. Children that walk or bike to school are less likely to be overweight. The rate of children walking and biking to school has dropped drastically from 50% in 1969 to 13% in 2009. Currently, there are no bike racks on site nor a bikeway connection to Max Leuchter Elementary School such as a bicycle lane or path.

Biking on sidewalks is permitted in the city, however sidewalks are not built for bicycle travel and biking on sidewalks often results in conflicts with pedestrians. During the walking audit, bicyclists were observed riding on the sidewalk along Park Avenue (Figure 4). For children under the age of 10, it is appropriate and even desirable for them to ride with parental supervision on sidewalks away from vehicular traffic. For older students that have received bicycle safety instruction, it may be appropriate to ride on roadways that safely accommodate bicycle travel. Students at any age should always wear a properly fitting bicycle helmet.

Some residential streets in the city are already conducive to general bicycle travel due to their low volume and low traffic speeds, but lack additional amenities that would increase safety and encourage bike travel to schools.

Figure 4. Park Avenue - Biking on Sidewalk



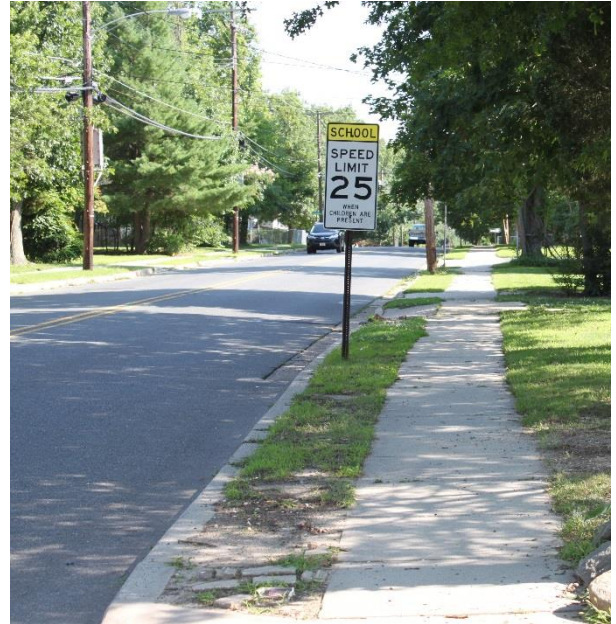
Primary School Travel Corridors

West Avenue is the primary travel corridor along with multiple feeder streets for Max Leuchter Elementary School students who choose to walk or bike to school. These areas were identified by city officials as areas where children currently walk and as a focus areas for safety efforts. Sidewalk is not present and continuous on feeder streets surrounding Max Leuchter Elementary School.

West Avenue

West Avenue is residential and runs north to south parallel to Delsea Drive through the City of Vineland. Max Leuchter Elementary School is located on West Avenue between Park Avenue and Bortle Avenue. The speed limit on West Avenue is 40 mph during non-school hours and 25 mph during school, making it a high speed area. Many drivers fail to obey traffic laws and do not drive 25 mph when students are present. Four foot wide sidewalk is present entirely along the east side completely, however the west side only has sidewalk from Bortle Street to Park Avenue. In some parts the sidewalk is overgrown with vegetation, resulting in substandard useable width. It was suspected that some of the handicapped accessible ramps may have been non-compliant within the area, though no measurements were taken.

Figure 5. West Avenue



Transportation concerns:

- Traffic congestion and queuing at arrival and dismissal times creates a potential safety hazard for pedestrians crossing feeder streets along West Avenue.
- There are no bicycle accommodations on West Avenue.
- Sidewalk does not run along both sides of West Avenue in Max Leuchter's School Zone.
- Non-compliant handicap ramps.
- Portions of sidewalk on West Avenue are unsafe and non-conductive to individuals with special needs.

Figure 7. West Avenue - Unsafe Sidewalk



Figure 6. Narrow Sidewalk - Non-conductive for individuals with special needs

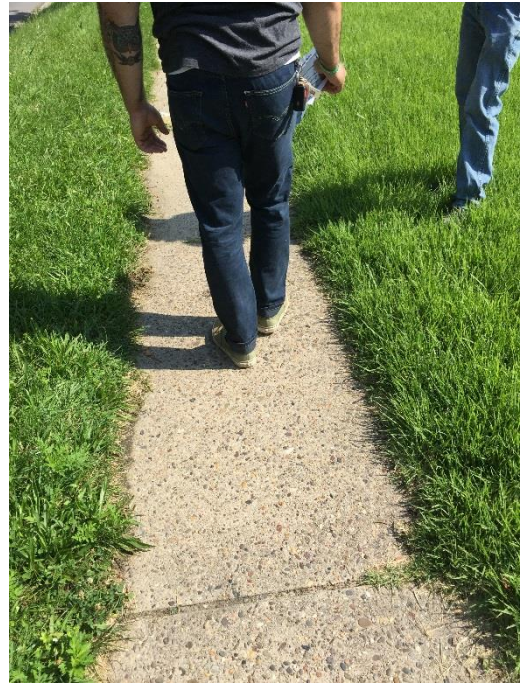


Figure 8. West Avenue & Bortle Avenue - Missing sidewalk and ramp



Figure 9. West Avenue & Mt. Vernon Avenue - Non-compliant handicap ramp



Additional Concerns

Max Leuchter Elementary School's Zone has multiple streets where students walk/bike that are not primary travel corridors and should be improved for the safety of children, one of which is Park Avenue (Figure 10). Park Avenue, from Lynn Avenue and Third Street, is very wide (over 60 feet), with four travel lanes and one two way left turn lane. There is no striped shoulder on Park Avenue.

There is six foot wide sidewalk on the south side of Park Avenue from Third Street to a point past West Avenue, where it becomes asphalt. On the north side of the road, there is six foot sidewalk from Second Street to a point past West Avenue (Figure 11), where the sidewalk ends at an earthen foot path. Non-compliant handicapped accessible sidewalk ramps were observed at the side streets along Park Avenue (Figure 13).

The handicapped accessible ramps at the Park Avenue and West Avenue intersection appear to be non-compliant in that the slopes seem too high. The ramps on the south side of the intersection do not have truncated dome castings.

Additionally, the signalized intersection at Park Avenue and West Avenue is lacking in that there are no pedestrian push buttons or count down timers. There are left turn lanes on all approaches, but no protected left turn signals.

While walking along Park Avenue, a bicyclist was observed traveling westerly, against traffic, in the easterly travel lane (Figure 12).

Second Street, from Park Avenue to Bortle Street, was acknowledged by the group to be a good representation of the remaining side streets within the limits. Compared to the east-west streets like Bortle, however, Second Street is a larger and likely more travelled roadway. The lack of sidewalk did not seem to be a concern to the audit team.

West Avenue has multiple feeder streets that students walk/bike through in order to get to and from school. Multiple streets lack bicycle accommodation, crosswalks, and intersections that are non-conductive to individuals with special physical needs. None of the feeder streets within Max Leuchter's walking zone have sidewalk. Figure 11 and 12, display Osborne Avenue, a small, residential feeder street on West Avenue. Osborne Avenue lies directly across from Max Leuchter and has no sidewalk or bicycle accommodations. There is a distinct foot path about 50 feet from the intersection, as well as across the southwest corner of the intersection. During the walking audit, multiple students were picked up from Osborne Avenue as they were being dismissed from school. Multiple cars were stacked going each way making it difficult for cars to pull onto and off Osborne Avenue (Figure 15). Map 4 demonstrates that the majority of students that do not receive transportation are located on the small feeder streets.

Figure 10. Park Avenue & West Avenue Intersection



*Figure 11. Park Avenue & Second Street -
Discontinue of sidewalk*



*Figure 12. Park Avenue - Bicyclist in road going
against traffic*



Figure 13. Park Avenue - "Foot Path"



*Figure 14. Park Avenue & 2nd Street - Non-
compliant handicap ramp*



Figure 15. Osborne Avenue - Foot Path



Figure 16. Osborne and West Avenue – Foot Path

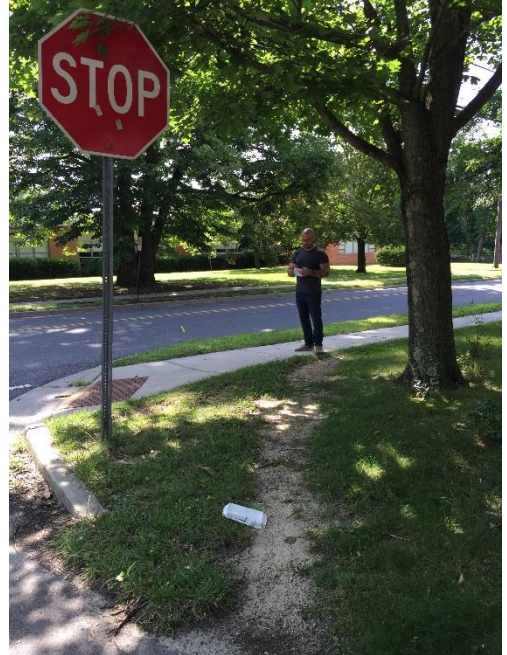


Figure 18. Osborne Avenue



Figure 17. 2nd Street – No Sidewalk

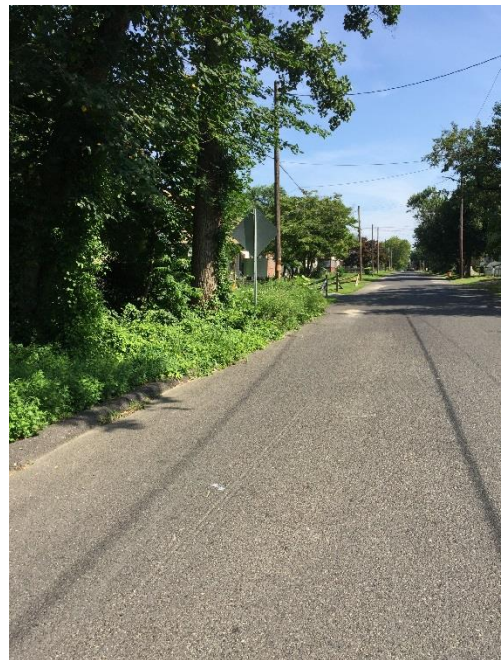


Figure 19. West Avenue - Unsafe sidewalk



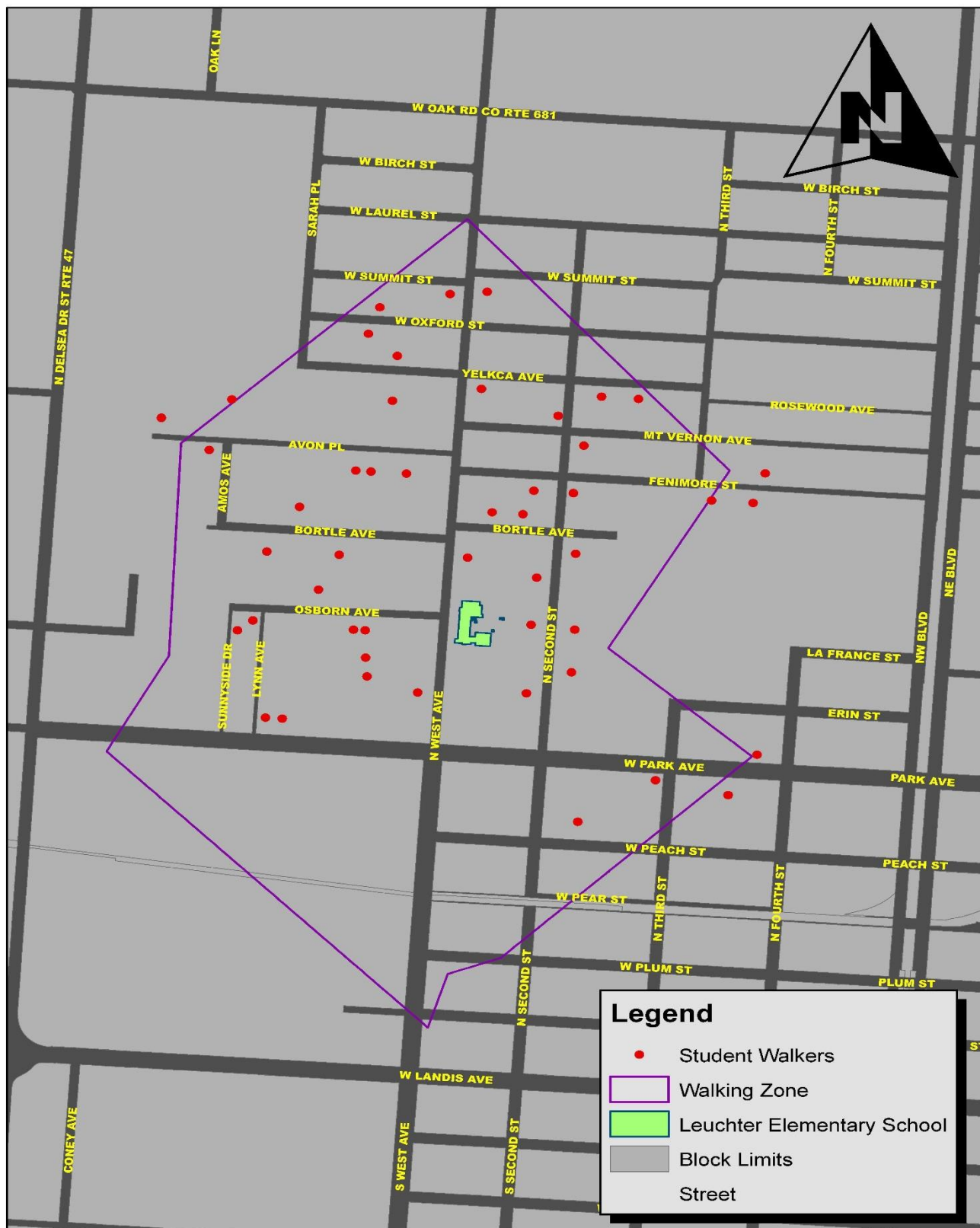
Figure 20. Summit Street - Restripe crosswalk, no sidewalk



Figure 21. Yelka Avenue and West Avenue - No crosswalk, missing sidewalk, no ramp



Map 7. Max Leuchter Elementary School Walking Zone - Student Locations



0 0.05 0.1 0.2 0.3 0.4 Miles

VINELAND
New Jersey

Goals and Action

Goals

- Encourage more students to walk and bike to and from school.
- Improve the health of schoolchildren through increased physical activity.
- Make it safer for children to walk and bike to and from school.
- Establish healthy lifestyles habits among schoolchildren.
- Reduce traffic congestion around schools at arrival and dismissal times.
- Reduce the negative environmental impacts of automobile trips to schools.
- Ease staff workload during drop-off and pick-up times.

Action

The following are strategies to achieve the goals listed above by addressing the Five E's: Education, Encouragement, Enforcement, Engineering, and Evaluation.

I. Education

Education efforts are an important component of developing a sustainable Safe Routes to School Program. These actions can help change community expectations about how children should travel to and from school and ensure that children receive proper instruction on walking and biking safely.

Table 5. Education Efforts		
Education Actions	Responsibility	Time Frame
Bicycle and Pedestrian Safety Presentation	Safe Kids – NJ Cooper University Health Care/Brain Injury Alliance of NJ/Max Leuchter Elementary School	Fall 2015
In-class education on the health and environmental benefits of walking and biking	Max Leuchter Elementary School	Annual
In-class education on safe walking and biking behavior	Safe Kids – NJ Cooper University Health Care/Brain Injury Alliance of NJ/Max Leuchter Elementary School	Fall 2015
Participate in Vineland City's Bike Rodeo	SRTS/Cross County Connection TMA/Vineland Police Department/Safe Kids NJ – Cooper University Health Care/ Vineland Health Department/ Live Healthy Vineland	Annual

Max Leuchter Elementary School has not pursued education efforts in the past on street safety. During field audits, bicyclists were observed riding against traffic, on sidewalks, and without helmets. This plan recommends that bicycle safety and riding instruction be performed to reduce unsafe riding behavior in the City of Vineland. Max Leuchter Elementary has requested that they be a part of Safe Kids USA's "Clifford Takes

a Walk Campaign.” Safe Kids USA and FedEx worked with Scholastic books and developed a special pedestrian safety book, “Clifford Takes a Walk”. Prior to participating in Max Leuchter’s Walk to School Day, Safe Kids New Jersey will do a pedestrian safety presentation to the kindergarten students and will read and distribute “Clifford Takes a Walk.” Safe Kids New Jersey gave away over 50 helmets to children in need at the Bike Rodeo held on May 16th.

Cross County Connection TMA will make safety education and outreach materials available for the distribution to students, parents, and school staff. These materials may be circulated at parent teacher meetings, school walking events, and in-class or included with municipal notices.

II. Encouragement

Encouragement actions promote walking and biking to school through programs such as, the Fitness and Walking Club, the Bike Rodeo, Bike/Walk to School Day, and other strategies that generate excitement around walking and biking. These programs are essential to building the momentum necessary to significantly change school travel habits and create a sustained, successful SRTS program.

Table 6. Education Efforts

Encouragement Actions	Responsibility	Time Frame
Fitness and Walking Club	1 st Grade Teacher – Diana Ulrich; Max Leuchter Elementary School	Academic School Year; Annual
Bike to School Day/Walk to School Day	Max Leuchter Elementary School	Annual
Participate in Vineland City’s Bike Rodeo	SRTS/Cross County Connection TMA/Vineland Police Department/Safe Kids NJ – Cooper University Health Care/ Vineland Health Department/ Live Healthy Vineland	Annual

Max Leuchter Elementary School has a fitness club, known as the Fitness and Walking Club, which meets on school property after school hours. The Fitness Walking Club is for students in kindergarten through second grade. Students participate in and learn the importance of physical fitness and activity in their daily life. They examine the ways to maintain healthy lifestyles and how to make good choices when it comes to nutrition and safety. The club rotates between weekly hourly sessions before and after school. The club averages about 25 students.

Students of all schools within the City of Vineland were encouraged to participate in the Bike to School Day on May 6, 2015 and will be encouraged to participate in the International Walk to School Day on October 7, 2015. Max Leuchter Elementary School will be participating in International Walk to School Day on October 7, 2015. They participated in Bike to School Day on May 6, 2015 where the Vineland Police Department provided bicycle safety talks and Cross County Connection donated 10 helmets to be raffled off to students in need of one (Figure 22).

Figure 22. Max Leuchter - Bike to School Day
Helmet Raffle



Students were also encouraged to participate in the City of Vineland's Bike Rodeo that was held on May 16, 2015. The Vineland Police Department, the Vineland Health Department, Safe Kids New Jersey, Safe Routes to School, and Live Healthy Vineland provided bicycle safety inspections, bicycle safety talks, an obstacle safety course, and a helmet check. Safe kids New Jersey gave away over 50 helmets to children who were in need of one.

III. Enforcement

Enforcement of safe and lawful travel behavior around schools, on primary school travel corridors and throughout the city is important to ensure a safe walking and biking environment for children. The Vineland Police Department is currently working with the school district to help ensure schoolchildren travel safely.

Table 7. Enforcement Actions		
Enforcement Actions	Responsibility	Time Frame
Speed enforcement	Vineland Police Department	Ongoing
Stop enforcement for pedestrian crosswalks	Vineland Police Department	Ongoing

Park Avenue and West Avenue should be targeted for enforcement due to concerns about speeding along these corridors. Currently, the Vineland Police Department has one crossing guard located directly in front of Max Leuchter Elementary School. In addition to existing efforts, participation in New Jersey's Pedestrian Decoy Safety Program should be considered. This program has been a successful enforcement tool in many New Jersey communities to ensure that vehicles stop for pedestrians at crosswalks and obey New Jersey's "Stop and Stay Stopped" law (NJ 39:4-36).

IV. Engineering

Engineering recommendations based on findings of the observations and data analysis revealed that there are opportunities to enhance pedestrian and bicyclist safety in the area surrounding Max Leuchter Elementary School. It is recommended that physical improvements be first addressed in higher vehicular and pedestrian areas as well as areas that provide direct access to public entities.

Recommendations:

On School Grounds

- The addition of bicycle racks may encourage students to bike to and from school.

In the Right-Of-Way

- Replacing deficient, or missing, handicapped accessible sidewalk ramps with compliant ones.
- Repairing damaged sidewalk and building new sidewalk where none exists.
- Trimming trees which obstruct sidewalk.
- Clearing sidewalk of soil and vegetation which restrict useable width.
- Creating delineated shoulder areas on West Avenue and on Park Avenue.
- Upgrading the traffic signal and ramps at the intersection of West Avenue and Park Avenue to include compliant ramps and pedestrian amenities.

Outside of the physical improvements, further education and enforcement of pedestrian and bicycle laws are recommended.

The North Jersey Transportation Planning Authority (NJTPA) has initiated a program called StreetSmart which seeks to change driver and pedestrian behavior through education and enforcement on a community-wide basis. The South Jersey Transportation Planning Organization (SJTPO) is a sister agency to NJTPA which services Southern New Jersey and would be a valuable partner in developing a similar initiative in Vineland.

Additional Recommendations:

Bicycle Accommodations:

This plan recommends the installation of bicycle facilities on the travel corridors listed above. Shared lane pavement markings, or “sharrows,” designate a roadway as a shared travel environment for bicycles and automobiles. These markings alert automobile drivers to expect and share the road with cyclists, designate a roadway as a preferable bicycle route and guide cyclists on where to ride in the lane. “Share the Road” signage, shown in Figure 23, is recommended to be used in combination with sharrows. Guidance on shared lane marking installation is found in Section 9C.07 of the Manual on Uniform Traffic Control Devices (MUTCD).

Figure 23. Shared Road Designation



Crosswalk Markings and Improvements

Several crosswalks located on primary school travel corridors are unmarked and unstriped. High visibility marked crosswalks are important in locations with significant pedestrian traffic because it both alerts automobiles to the presence of a crosswalk and designates proper crossing locations to pedestrians. Much of the signage within the project limits is faded or otherwise not in conformance with the Manual of Uniform Traffic Control Devices (MUTCD). Re-striping the stop bars and cross walks further reinforces good behavior by drivers and protects the pedestrian population. Replacing these signs allows motorists to make better decisions which have a direct impact on the safety of pedestrians and bicyclists in the area.

Figure 24. In-Street Crossing Signage



Mobile in-street pedestrian crossing signage should be considered for placement at heavily used crossing locations during arrival and dismissal times. Signage shown in Figure 24 may be mounted on a portable base to allow for easy placement and removal. This mobile signage should be monitored and placed at crossing locations approximately 45 minutes before school starts, and removed approximately 30 minutes after school dismissal. Signage should be placed in the roadway centerline adjacent to the crosswalk.

Handicapped Accessible Sidewalk Ramp

There are intersections within the project limits that do not have handicap accessible sidewalk ramps and many that do have them are not in accordance with the Federal Americans with Disabilities (ADA) standards. Therefore, sidewalk ramps will be redesigned to better conform to those standards. Each ramp will be individually designed, ensuring conformance with the Public Right-Of-Way Accessibility Guidelines (PROWAAG). This should further encourage pedestrian use of the sidewalks by students, especially those with special needs. Figure 25 displays a handicap accessible sidewalk ramp.

Figure 25. Handicap Accessible Sidewalk Ramp



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, such as the one pictured in Figure 26 that 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 on primary school travel corridors.

Figure 26. SRTS Route Marker



V. Evaluation

Determining participation in walking and biking programs, how many children walk and bike to school, and parent concerns is an important part of the 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 8. Evaluation Actions

Evaluation Actions	Responsibility	Time Frame
Student Travel Survey	Vineland Health Department/Max Leuchter Elementary School	May 2015
Parent Survey	Vineland Health Department/ Max Leuchter Elementary School	Spring 2016

Max Leuchter Elementary School conducted a survey to measure the number of students walking and biking to school. Student Travel Tallies should be held at regular intervals to determine the impact of SRTS activities in student 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. Survey results may be submitted to the Vineland Health Department for compilation and reporting. 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/>.

Conclusion

Max Leuchter Elementary School is committed to increasing the number of children that walk and bike to school through safety improvements and programs that educate and encourage biking and walking. The city and school district currently address child walking safety by providing crossing guards at busy crossings, and have proactively pursued pedestrian safety improvements and bicycle infrastructure in the city. This School Travel Plan was commissioned to address the School's interest in walking and biking programs, and its continued concerns about existing and potential safety issues due to high-speed roads, road crossings, and walking and biking infrastructure gaps in the city.

The School Travel Plan outlines several education and encouragement programs that the School District is either actively pursuing or has expressed interest in, including a walking school bus program, encouragement programs and events, and participation in walk/bike to school month activities. Infrastructure improvements such as crosswalk installation, signage, bikeways and shared road treatments were recommended on the priority travel corridor, West Avenue. Implementing these improvements will make the walking and biking environment safer, better connected, and more attractive for schoolchildren and the community.

Implementation of this Travel Plan and the sustained success of any effort to increase walking and biking to school will require continued partnership among local and regional organizations. Infrastructure improvements must coincide with hands-on education and encouragement programs, to maintain momentum towards achieving the goal of reducing the amount of children in the city that are currently driven to school. The Vineland School District and the City of Vineland have demonstrated through past successes and current efforts that they are committed to both creating a community that fosters active and healthy children, and providing a safe environment for walking and biking.