Learn it. Do it. Live it!

Dupont Elementary School Walkabout Report

Introduction

On March 10, 2022, stakeholders at Dupont Elementary School in Hopewell, Virginia met to discuss conditions for walking and bicycling to school and to identify potential projects to be included in a future infrastructure grant application. Stakeholders also discussed future infrastructure plans in the city that will potentially influence biking to the elementary school. Their participation in a VDOT Safe Routes to School (SRTS) Walkabout shows their support for improving the walking and bicycling environment and increasing the number of students safely walking and bicycling to school.

Figure 1. The entrance to the elementary school.

Meeting participants included the principal of Dupont Elementary School, the assistant principal, the PE teacher, a student, the Richmond Safe Routes to School Coordinator, members of the Hopewell Sherriff's Department, the superintendent of Hopewell City Schools, Hopewell's city engineer and the director of Recreation and Parks, a representative from Virginia Department of Transportation, and Virginia Safe Routes to School (SRTS) staff. See Appendix A for a complete list of participants.

School Location and Demographics

Dupont Elementary School is located at 300 S. 18th Ave, Hopewell, VA 23860. A private school, West End Christian School, is a quarter of a mile to the east.

Dupont Elementary serves about 589 students in grades K-5. The student body is diverse, with 77% students of color. The school has been serving the Hopewell community for almost 100 years, with the original building being built in 1929. In 1990, the new school building that is still utilized today was completed. There are about 530 students living within a mile of the school and 59 within two miles. However, only about 20 students regularly walk to school, and there are no regular bicyclists. The school is centrally located within its attendance boundary (Figure 2) and has a walk zone of about a half-mile radius (Figure 3).

Dupont Elementary is located within a play desert, where children living in the surrounding neighborhood do not have safe access to adequate play spaces. Children often utilize the school campus after hours as a play space, though most of the school grounds are fenced in due to security issues. This brings further importance to the need for safe bicycle and pedestrian infrastructure near the school, as it also provides a safe place for neighborhood children to play.

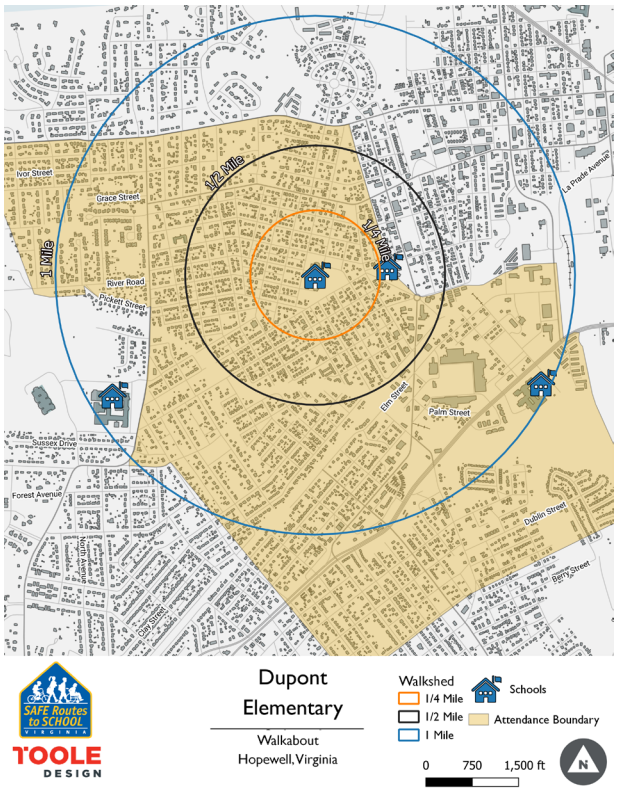

Figure 2. The attendance boundary

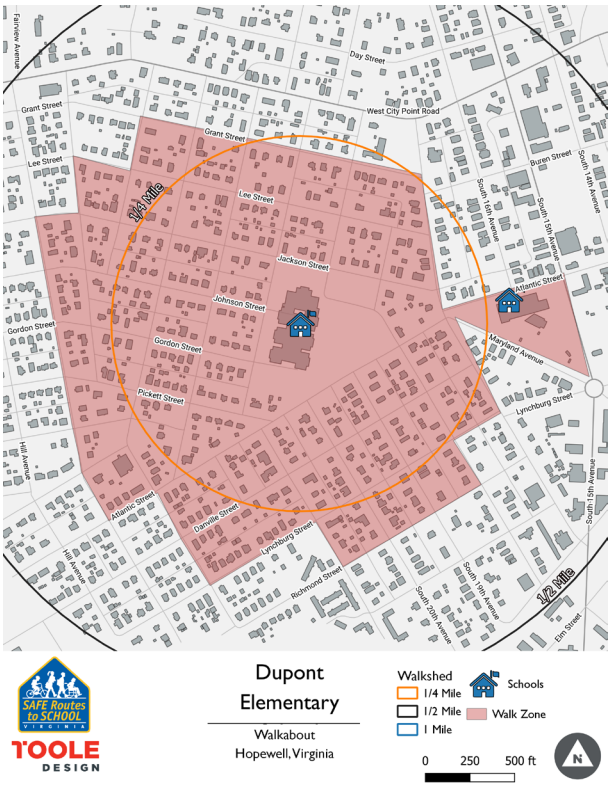

Figure 3. The 1/4 mile walk zone

Crash Data

From 2014 to 2021, a total of 1,507 crashes occurred within a one-mile radius of Dupont Elementary School. Of those crashes, 35 resulted in death or serious injury. 30 crashes involved cyclists or pedestrians, with 7 resulting in death or serious injury. 8 of the pedestrians or cyclists involved in these crashes were under the age of 18, which accounts for 22.8% of all pedestrian and bicyclist involved crashes within a mile of the school. Many crashes had been noted for the driver failing to yield or follow signage appropriately. Unfortunately, Dupont Elementary faced a tragedy in 2017 when a 1st grade student was killed by a driver while playing in his apartment complex parking lot.

Table 1. Crash statistics within a one-mile radius of Dupont Elementary School

Crashes within One Mile of the School (2014-2021)	Crashes Resulting in Serious Injury or Death within One Mile (2014-2021)	Bike and Pedestrian Crashes within One Mile (2014-2021)	Bike and Pedestrian Crashes within One Mile Resulting in Death or Serious Injury (2014-2021)
1057	35	30	7

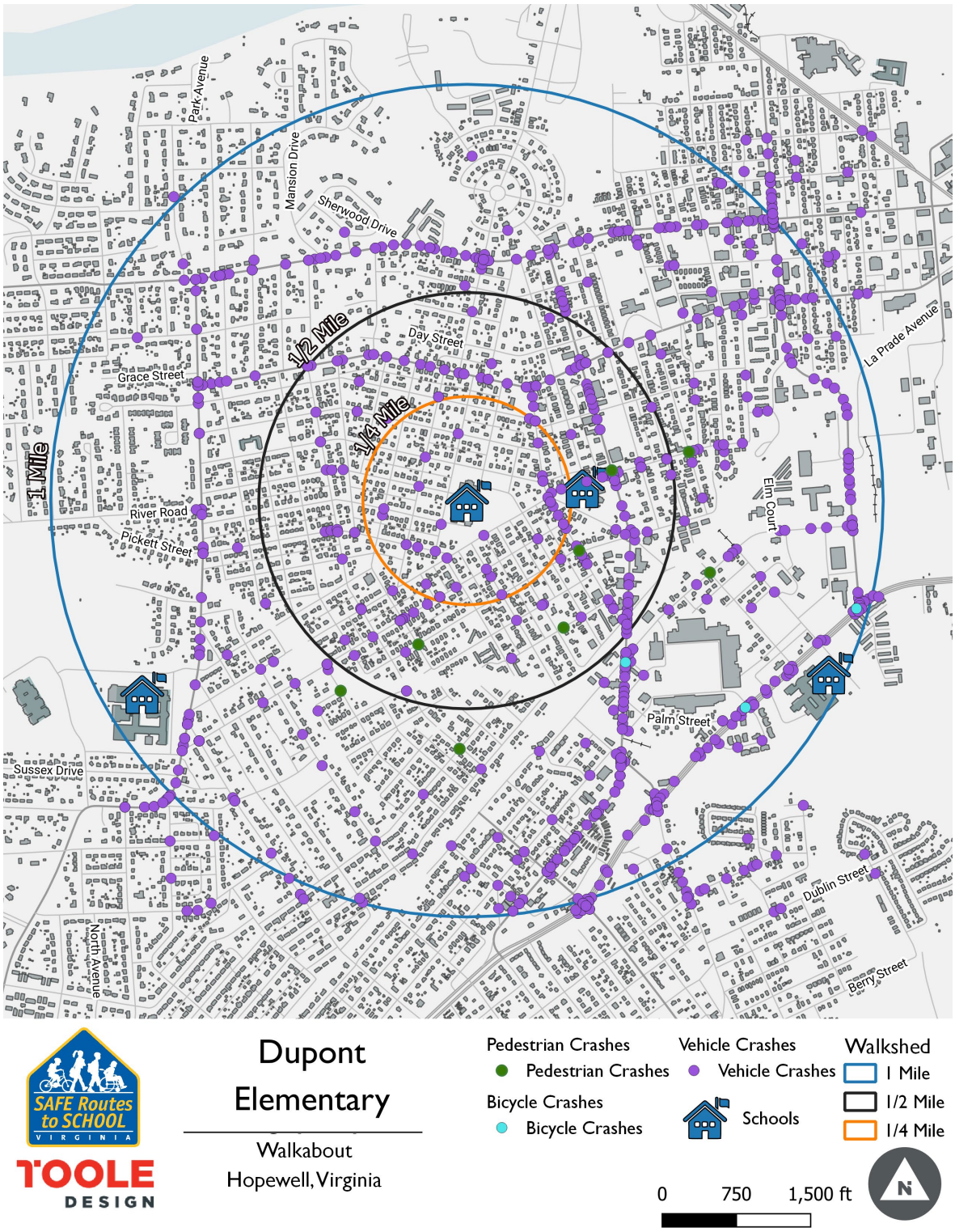

Figure 4. A map of crashes within a mile of the school from 2014-2021

Bicycle and Pedestrian Infrastructure

There are on-campus sidewalks that give students access to the car rider and bus loops, as well as a paved path providing students with additional access to the buses on Jackson Street. However, most of the streets around the school campus do not have sidewalks or marked crosswalks. There are marked crosswalks at the following intersections: 21st Avenue and Jackson Street, Atlantic Avenue and South 20th Avenue, and Atlantic Street and South 18th Avenue. There are sidewalks on one side of these crossings.

Dupont has one bike rack at the main entrance of the school. It is not used frequently, as there are not any students biking to school right now due to the lack of safe places to bike.

There are not many sidewalks in the neighborhood surrounding the school, and those that do exist are older and do not meet ADA requirements for accessibility. Lack of dedicated space for walking and biking is one barrier that prevents more students from walking and biking to school.

Planned Projects

To encourage and facilitate more walking and biking in Hopewell, the city has released its plans to install improved bike infrastructure within existing streets of the community. Formally presented as Hopewell Active Connections, the plans will install on-street bicycle facilities that will provide connections from residential neighborhoods to schools, parks, businesses, downtown destinations, and riverfront access points (Figure 5).

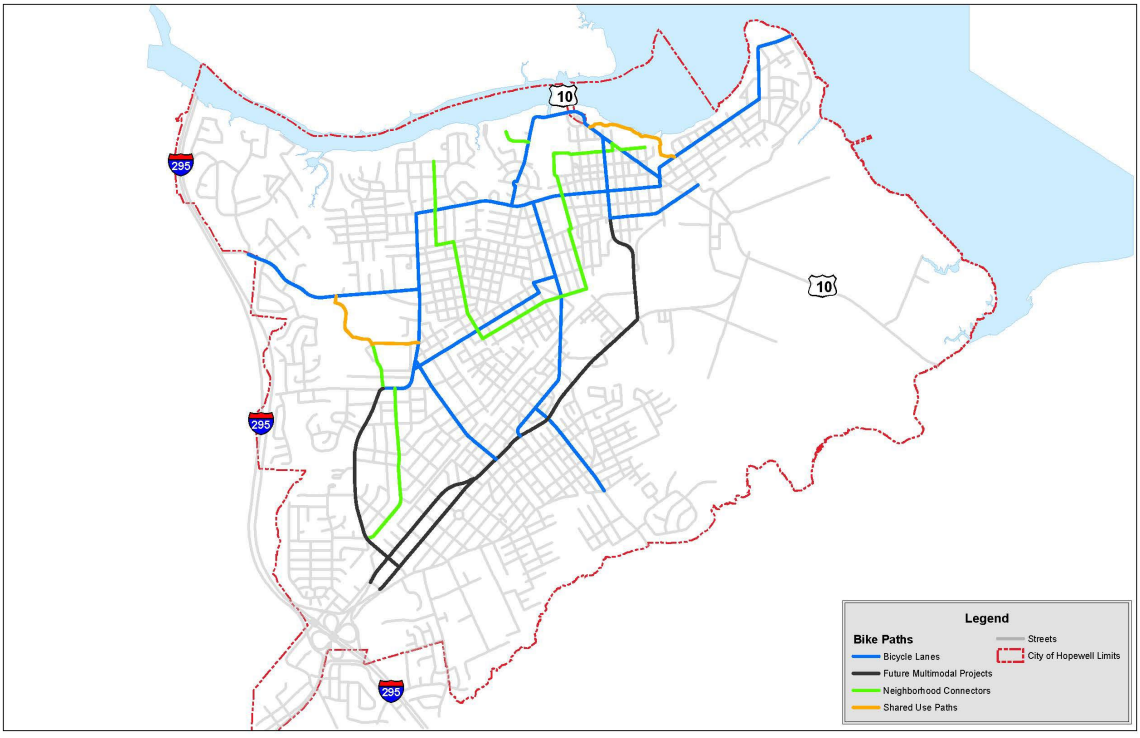

Figure 5. A map of the Hopewell Active Connections project

There is a nearly ¼ mile paved walking loop on the school grounds, and the Walkabout Applicant is in the process of applying for funding to install a paved path on the southern side of the campus. The path would connect Atlantic Street & 20th Avenue to the sidewalk on the car loop (Figure 6). Students are involved in the design of the path and will help clean up the landscaping around the new path. The Walkabout team observed a family walking this route and crossing Atlantic Street at 20th Avenue.

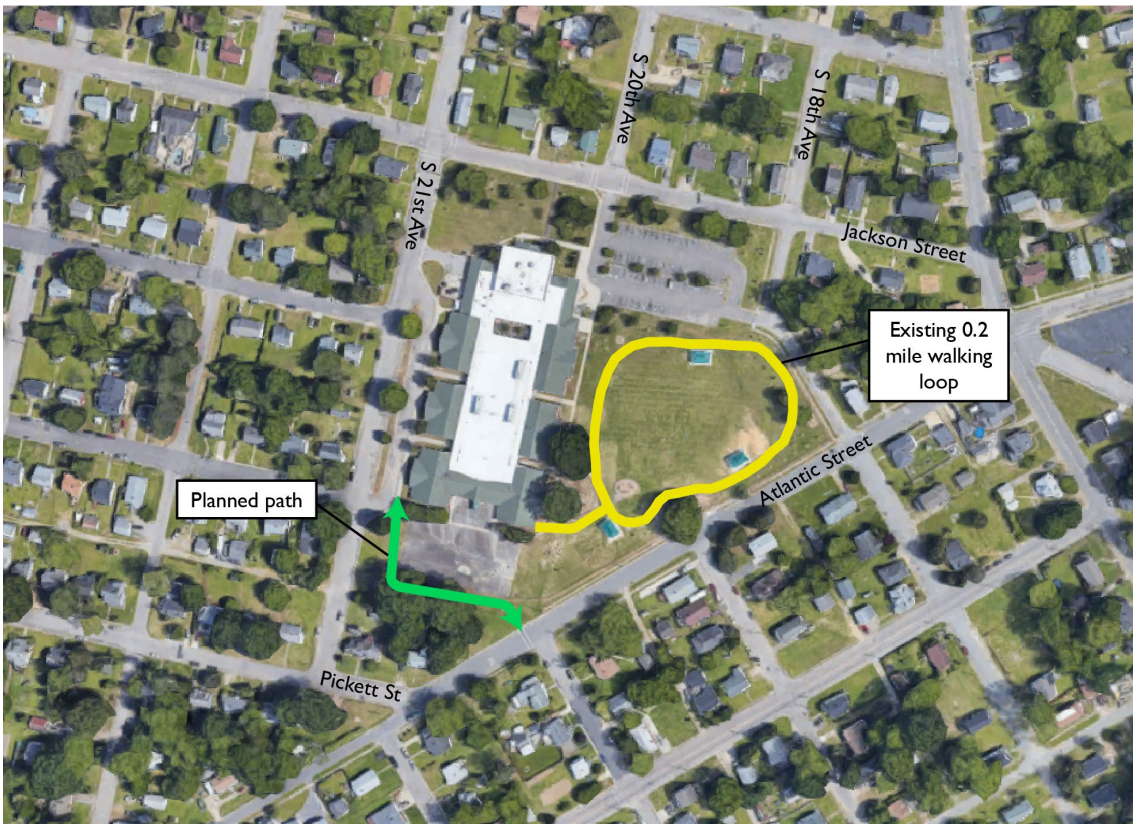

Figure 6. Existing and planned on-campus pedestrian paths

Walkabout Summary

Before meeting Walkabout Participants, Virginia SRTS staff walked around the school campus to observe and document existing conditions. After a brief meeting with the principal, applicant, and other participants to review existing procedures and community concerns, the Walkabout team and SRTS staff split up to observe Dupont Elementary School's dismissal process from both the bus loop and car rider loop.

Figure 7. The walkabout team debriefing after dismissal

Dismissal Overview

Dismissal begins at 2:45 pm. Since returning to in-person learning, Dupont has transitioned to new dismissal protocols utilizing a mobile phone app. The dismissal process is shown in Figure 8 and described below.

Bus riders: Ten buses line up along Jackson Street and in the front parking lot. The assistant principal inputs the number of each bus that is present, and teachers dismiss their students as their bus number is called. Students and teachers exit using the two doors on the north side of the building. The buses double park on Jackson Street, and sawhorses are placed on Jackson Street to prevent private vehicles from using the street between 20th and 21st Avenues during dismissal. Sawhorses are also placed at the northern driveway to prevent parents from entering the parking lot.

Car riders: Each caregiver places a number on the car dashboard, and the assistant principal inputs the number of each car that is present. Teachers dismiss their students as their car number is called. Students exit at the western door. The car rider line often extends down 21st Avenue, along Pickett Street, to Atlantic Street, though the pick-up process goes very quickly.

Walkers: Caregivers must sign a form allowing their students to walk to school. Students exit at the door that is closest to their route home.

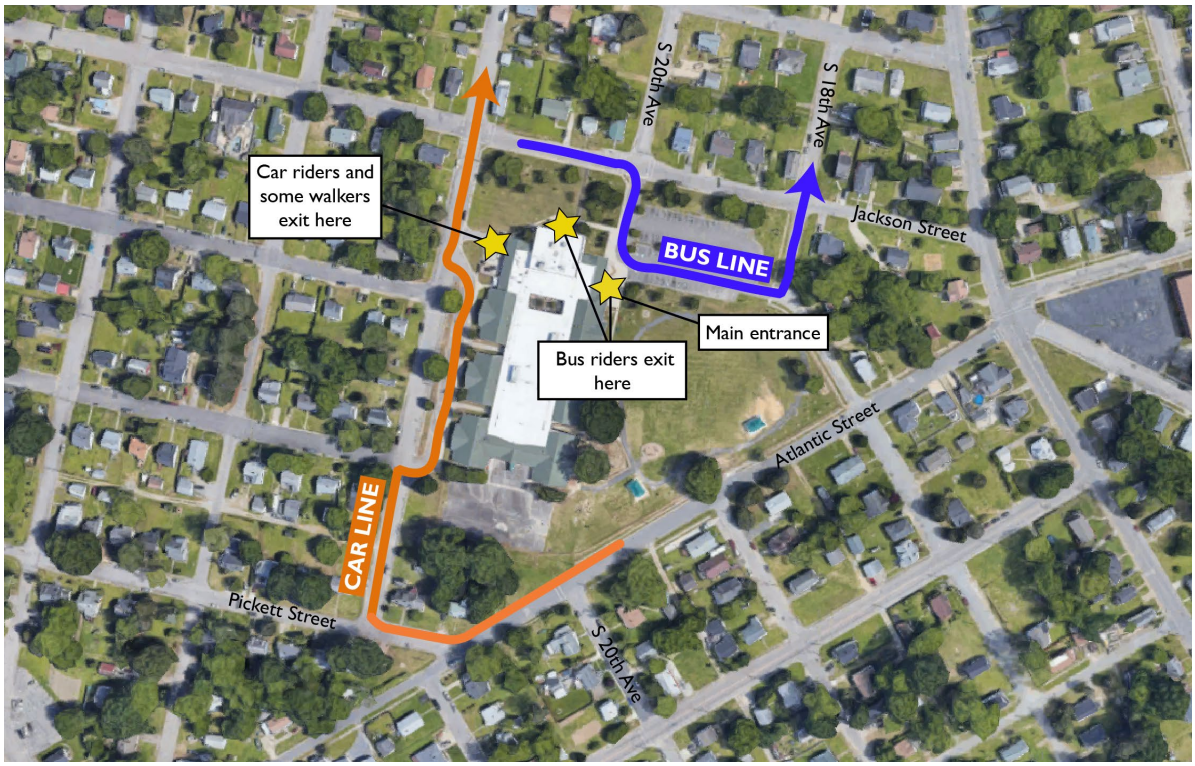

Figure 8. Car and bus circulation at dismissal

Key Issues and Barriers

The key barriers and issues identified by the Walkabout Team are listed below. Location specific issues and recommendations are listed on the following pages. For additional information regarding key roadways mentioned in the recommendation section, including speed limits and roadway width, see Appendix B.

- **Missing walking/biking facilities –** There are sidewalks on most of the school block, but adjacent streets are currently lacking dedicated spaces for walking and biking. Many of the existing sidewalks are older and in poor condition.
- **Few marked crosswalks –** There are few marked crossings to indicate where students and other community members might be crossing the street. The crosswalks that are marked are faded and hard to see from a distance.
- **High motor vehicle speeds –** Members of the Walkabout Team reported high vehicle speeds on streets surrounding the school block, which are exacerbated by low vehicle volumes and lack of traffic calming.
- **Missing and outdated school zone signage –** Many of the existing signs have outdated information or are not retro-reflective. Additional school zone speed and crossing signs are needed to establish the school zone and make drivers aware of the recommended 15 mph speed limit on the school block.

Recommendations

The map below (Figure 9) shows the locations of key recommendations to improve the walking and bicycling environment near Dupont Elementary. Recommendations are categorized as corridor or intersection improvements. Recommendations include making crosswalks more visible, providing dedicated space for walking, and traffic calming measures to slow vehicle speeds. Detailed issues and recommendations for each numbered location are described on the following pages.

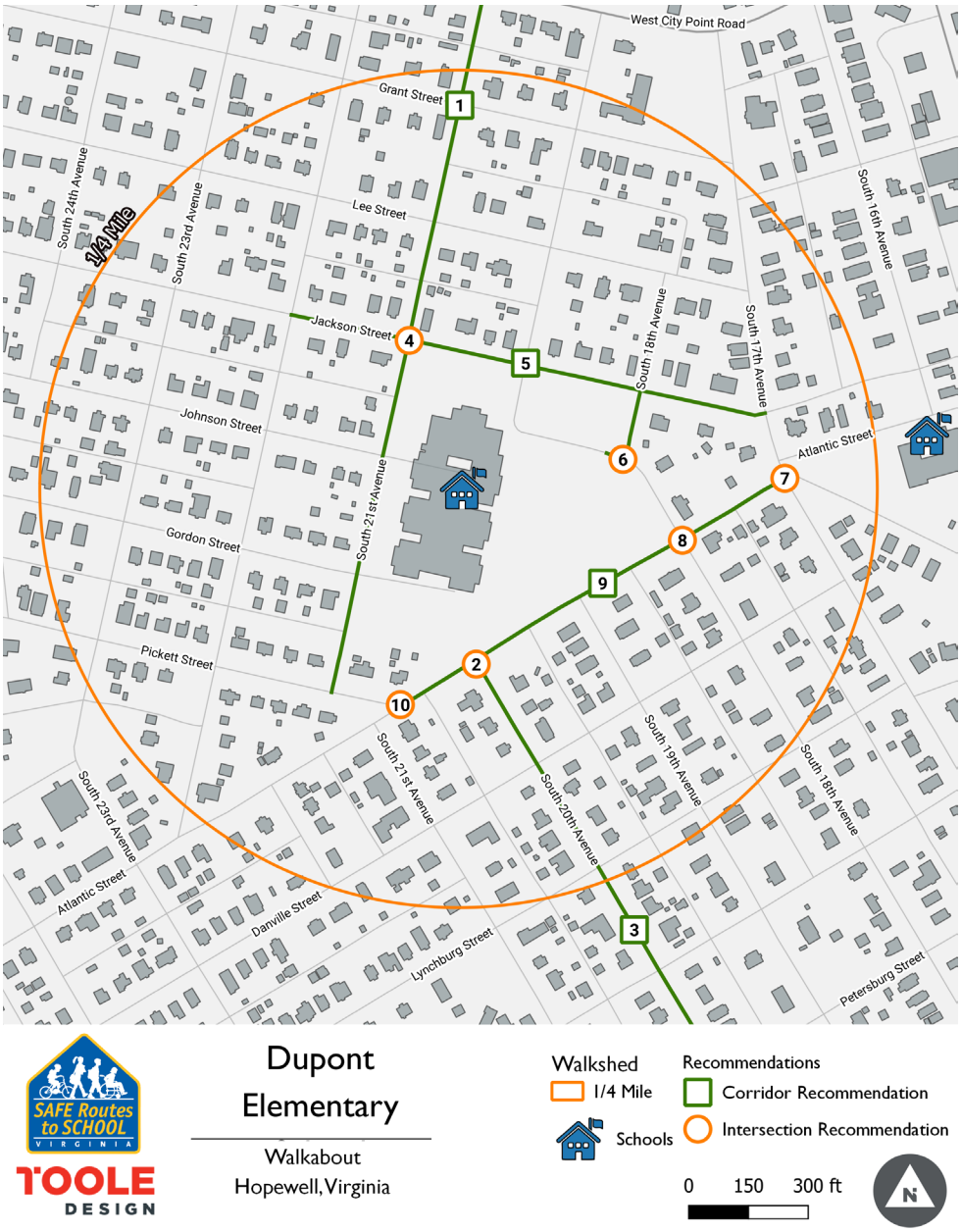

Figure 9. Infrastructure Recommendations Map

Map ID 1: 21st Avenue (between City Point Road & Pickett Street)

Issue: Lack of pedestrian paths and marked crossings.
With the exception of the 4-foot sidewalk on the school block between Jackson Street and Pickett Street, there are no sidewalks on 21st Avenue. The street is 32 feet wide with on-street parking on both sides. School staff reported high vehicle speeds. During pick-up and drop off, the queue of vehicles extends down 21st Avenue. Installing safe pedestrian paths and crossings on this street would improve safety and connectivity to destinations north and south of the school block.

Short-Term Recommendations (1 to 3 years)

- Provide continuous pedestrian route with paint or parking stops on the east (school) side from City Point Road to Jackson Street. The path should be at least 6 feet wide.
- Mark high visibility crossings and install ADA-compliant curb ramps at the following locations. On-street parking should be restricted at proposed crosswalks to maintain sight lines between approaching motorists and pedestrians waiting to cross.
    - On the eastern legs of all streets intersecting with 21st Avenue.
    - On at least one leg across 21st Street at each intersection for students who live west of 21st Avenue.
- Mark high-visibility crosswalks on both entrances to the car loop. Install ADA-compliant ramps at crossings.
- Install school zone speed signage (S4-3P with R2-1 and S4-2P) to limit speeds to 15 mph on the school block.

Long-Term Recommendations (4 to 7 years)

- Install wide sidewalks (6-8 feet) on the east side from City Point Road to Jackson Street.
- Widen existing sidewalks on the school campus (from Jackson Street to Pickett Road) to 6-8 feet.

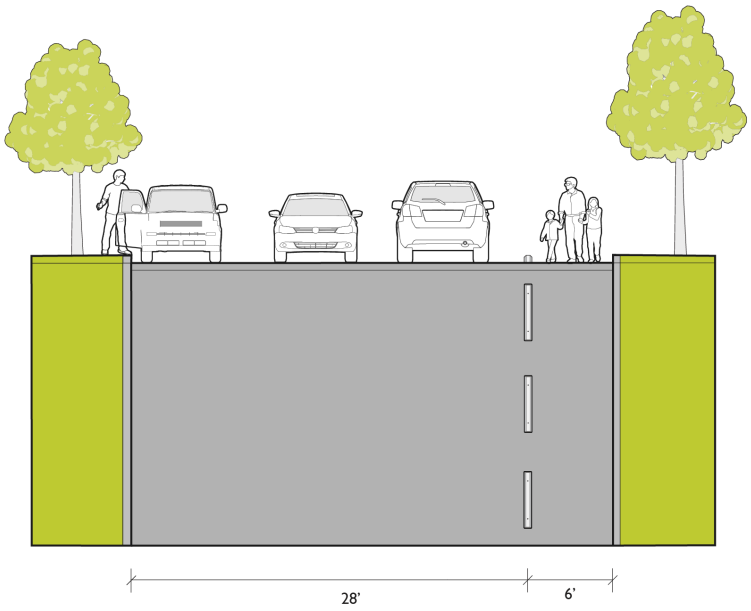

Figure 10. Proposed short-term cross section

Map ID 2: Atlantic Street & 20th Avenue

Figure 11. The crosswalk at Atlantic Street and 20th Ave. There is no existing sidewalk on the northern side of Atlantic Street.

Issue: No sidewalk connection to marked crossing; higher motor vehicle speeds.
The street is 32 feet wide with on-street parking on either side. West of 17th Avenue, Atlantic Street has existing sidewalks on the north side; at 20th Avenue the sidewalk switches to the south side of the street. The marked crossing on the west leg of Atlantic Street is not connected to an existing sidewalk on the north side of the street.

Short-Term Recommendations (1 to 3 years)

- Mark a high-visibility crosswalk on the southern leg.
- Install a pedestrian crossing island with paint and flex posts to slow vehicles on Atlantic Street.
- Install ADA-compliant curb ramp on the southern corners of Atlantic Street & 20th Avenue.

Long-Term Recommendations (4 to 7 years)

- Align planned pedestrian path to western crosswalk; include ADA-compliant curb ramp. The existing sidewalk on the north side of the street should be extended to connect to the pedestrian path.
- Remark the western crosswalk with high-visibility markings. Note: this recommendation is long-term because the restriped crosswalk requires an ADA-compliant curb ramp.

Map ID 3: 20th Avenue (between Atlantic Street & Petersburg Street)

Issue: Lack of pedestrian paths and marked crossings.
There is no existing sidewalk between Atlantic & Lynchburg Streets. There is a need for a safe pedestrian route between the school and the neighborhood to the south, including Madison Terrace Apartments at Richmond Street & 21st Avenue. School staff report there is a crossing guard at the intersection of Danville Street & 20th Avenue. Danville Street is part of the Hopewell Active Connections.

Short-Term Recommendations (1 to 3 years)

- Provide continuous pedestrian route with paint or parking stops on the west side. The path should be at least 6 feet wide. Parking stops provide more protection for people walking by preventing vehicles from accessing the pedestrian route.

Long-Term Recommendations (4 to 7 years)

- Install wide sidewalks (6-8 feet) on the west side. The sidewalk should be installed to preserve on-street parking.
- Install high-visibility crosswalks with ADA-compliant curb ramps on intersections along 20st Avenue.

Map ID 4: 21st Avenue & Jackson Street

Figure 13. The intersection of 21st Avenue and Jackson Street

Figure 12. Flex-post curb extensions with paint at a crosswalk in Washington, DC.

Issue: Faded crosswalks and wide crossings.

There are two existing standard crossings at this intersection. During arrival and dismissal, a school staff member is stationed on the corner to assist with crossing the street. Traffic is stop-controlled on 21st Avenue only, which is 32 feet wide. There is a 4-foot sidewalk on the east side of 21st Avenue, but many families were seen walking on the grass of the school campus to this intersection.

Short-Term Recommendations (1 to 3 years)

- Mark high-visibility crosswalks on the south and eastern legs of the intersection.
- Install flex-post curb extensions on 21st Avenue crossings. Install street art in the curb extensions to encourage slower motor vehicle speeds and add interest to the streets. Street art helps to remind motorists that streets are for all types of road users, not just vehicles. Street art may be designed by students at Dupont or by other community members.
- Install school crossing signage (S1-1 with W16-9p) in advance of crossings.

Long-Term Recommendations (4 to 7 years)

- Install ADA-compliant curb ramps on the southwest, southeast, and northeast corners.
- Install street art on the entire intersection to slow motor vehicle speeds and improve visibility of pedestrians.

Map ID 5: Jackson Street (between 21st Avenue & 17th Avenue)

Issues: Faded crosswalks, high motor vehicle speeds.
The Walkabout Team observed two families walking along Jackson Street during dismissal, including an older sibling helping his two younger siblings walk home. School staff report high motor vehicle speeds.

Short-Term Recommendations (1 to 3 years)

- Mark high-visibility crosswalks across Jackson on both legs of the intersection with 20th Avenue.
- Install speed humps along Jackson Street in front of the school property.
- Install school zone speed signage (S4-3P with R2-1 and S4-2P) to limit speeds to 15 mph.

Long-Term Recommendations (4 to 7 years)

- Widen sidewalk on south side of Jackson between 21st and 20th Avenues to create space for students to safely wait for and board buses.
- Install sidewalk on south side of Jackson Street between 18th and 17th Avenues.
- Install ADA-compliant curb ramps at the intersections of 18th and 20th Avenues.

Map ID 6: School Driveway & 18th Avenue

Figure 14. The pavement along the school driveway is in poor condition.

Issues: No pedestrian path to the front door; outdated signs and pavement markings.
18th Avenue functions as a school driveway that connects to the front parking lot. There is no direct path for pedestrians between 18th Avenue and the front door. The pavement and pavement markings are in poor condition.

Short-Term Recommendations (1 to 3 years)

- Remove old one-way signs to reflect current two-way operations.
- Refresh painted arrows in school driveway and parking lot.
- Repave 18th Avenue between Jackson Street & Atlantic Street.
- Add a gate in the fence near the intersection of the driveway & 18th Avenue to allow students to use the walking path on the school campus to access the front door. Install a paved path from the sidewalk to the campus walking path.

Recommendations for Further Study:

- Investigate the installation of a sidewalk on the south side of the front parking lot, from the sidewalk on 18th Street to the school's main entrance. The declining and winding topography of the parking lot may make this sidewalk challenging and/or economically unfeasible.

Map ID 7: Atlantic Street, 17th Avenue, & Maryland Avenue

Figure 15. The intersection of Atlantic Street, 17th Avenue, and Maryland Avenue, looking east

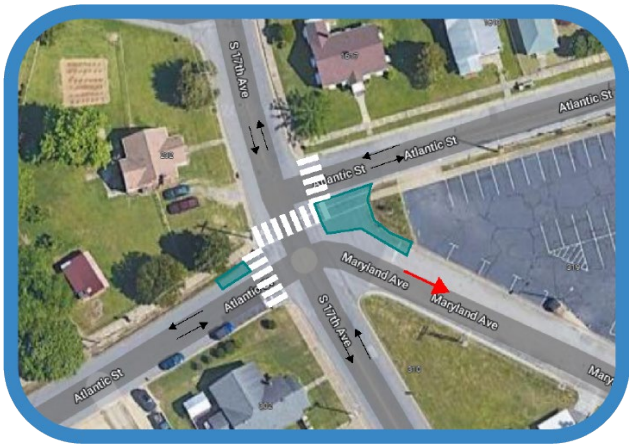

Figure 16. Proposed curb extension and crossings

Issues: Difficult sightlines, long crossings.

This five-leg intersection is between Dupont Elementary and West End Christian School. A crossing guard is typically stationed here, as the lack of safe crossing opportunities and poor sightlines create an unwelcoming environment for pedestrians. There is a crosswalk that cuts through the middle of the intersection. At 76 feet long, this is a very long crossing, and vehicles traveling on 17th Avenue cannot see westbound pedestrians until the pedestrians are in the middle of the intersection.

Short-Term Recommendations (1 to 3 years)

- Install a curb extension between Atlantic Street with paint and flex posts to decrease crossing distances across 17th Avenue.
- Mark a high-visibility crosswalk across 17th Avenue to the proposed bump out. Install ADA-compliant curb ramps.
- Mark a high-visibility crosswalk across Atlantic Street. Install ADA-compliant curb ramp on north side.
- Mark a high-visibility crosswalk on the west leg of the intersection across Atlantic Street. Install ADA-compliant curb ramps and restrict on-street parking to maintain sight lines between approaching drivers and pedestrians waiting to cross.
- Conduct a stop warrant analysis to determine if an all-way stop is appropriate at the intersection.

Long-Term Recommendations (4 to 7 years)

- Convert Maryland Avenue to one-way southeast-bound. Changing the traffic pattern eliminates the need for the intersection to accommodate turning traffic from Maryland Avenue. This may affect circulation patterns for West End Christian School.

Map ID 8: Atlantic Street & 18th Avenue

Figure 17. The intersection of Atlantic Street and 18th Avenue

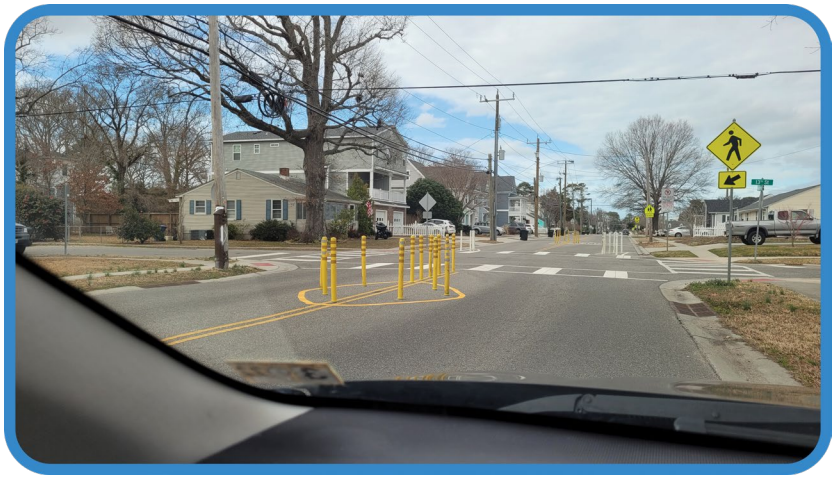

Figure 18. Example of flex-post median in Virginia Beach, VA

Issue: Faded crosswalk markings, missing curb ramps.
There is a marked crosswalk on the west side of this intersection. The curb ramps are not ADA compliant.

Short-Term Recommendations (1 to 3 years)

- Mark high-visibility crosswalks on the western and northern legs of the intersection.
- Install a median on Atlantic Street with paint and flex posts to slow vehicles.

Long-Term Recommendations (4 to 7 years)

- Install a raised intersection to slow vehicles and improve visibility of people crossing.

Map ID 9: Atlantic Street (between Pickett St and 17th Avenue)

Issues: Outdated signs and pavement markings.
Atlantic Street between 15th and 17th Avenues is part of Active Connections Bike Plan and is slated to have a bike lane. This facility may be extended west to Pickett Street to improve bicycle access to Dupont. The current school zone signs and markings are in poor condition.

Short-Term Recommendations (1 to 3 years)

- Refresh school zone pavement markings between 17th and 18th Avenues.
- Update school zone with flashing lights to include 15 mph school zone speed limit.
- Install advisory shared lanes from 21st St to 17th Avenues to designate a prioritized space for pedestrians and bicyclists.
    - Roads with advisory shoulders can accommodate the low to moderate volumes of traffic.
    - Advisory shoulders require little to no widening of the existing paved roadway.[1]
    - Advisory shoulders extend across intersections and increase visibility of people crossing.

Figure 19. Example of an advisory shoulder in Hanover, New Hampshire. Photo from Western Transportation Institute.

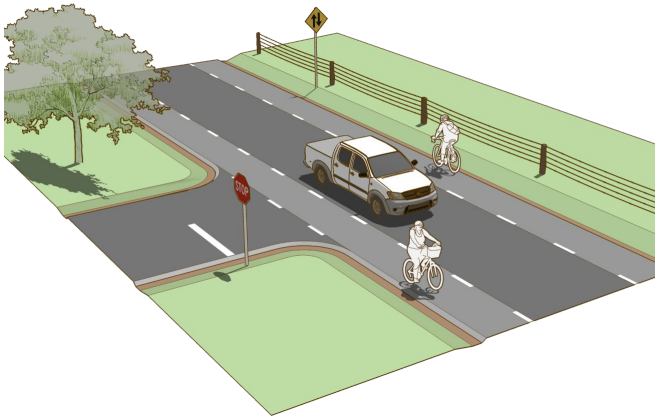

Figure 20. Illustration of advisory shoulders. Image from the Small Town and Rural Design Guide.[2]

[1] https://www.fhwa.dot.gov/environment/bicycle_pedestrian/publications/small_towns/fhwahep17024_lg.pdf
[2] https://ruraldesignguide.com/mixed-traffic/advisory-shoulder

Map ID 10: Pickett Street & Atlantic Street

Issues: High-speed motor vehicle turning, poor visibility.
Improving safety at this segment of Pickett Street is important. The drop-off queue can extend from 21st Avenue to Pickett Street, onto Atlantic Street to 20th Avenue during arrival and dismissal, and visibility at Pickett Street and Atlantic Street is poor due to the geometry of the intersection. Pickett Street is 32 feet wide. A pedestrian path is not recommended at the segment in light of the new path on school property.

Recommendations for Further Study

- Conduct a stop warrant analysis to determine if an all-way stop is appropriate at the intersection.
- Investigate reconstructing the intersection of Pickett Street & Atlantic Street to be a T intersection.

Figure 21. Sketch of intersection reconstruction, where blue lines indicate the new curb line

Programmatic Recommendations

SRTS programmatic recommendations are designed to work in conjunction with each other and the infrastructure recommendations to encourage more students to walk and bicycle to school and instill safe walking, bicycling, and driving practices. The recommendations are organized according to the Virginia SRTS Building Blocks: Equitable and Sustainable Program, Welcoming Campuses, Safe Behaviors, Supportive Culture. The fifth Building Block, Safe Streets, is addressed through the infrastructure recommendations in the first part of this report.

Equitable & Sustainable Program

Form a Dupont Elementary School Safe Routes to School team. A formal SRTS team at Dupont will help to increase the number of students walking and bicycling to school, educate the community on safe traveling behaviors, ease nearby traffic congestion, and improve the health and wellbeing of students. It is important to involve the whole community in a successful SRTS team: parents, children, neighborhood groups, schools, community leaders, and transportation and public health professionals can help identify the issues and develop solutions. For more information about beginning a local SRTS program, visit the SRTS Starter Kit.
http://www.vdot.virginia.gov/programs/resources/safeRouteResources/StarterKit/VDOT_LDL_SRTS_Steps_to_Creating_SRTS_Program_120815.pdf

Administer Parent Surveys to collect information on parents' attitudes towards walking and bicycling and reasons why they may or may not allow their children to walk or bike to school, especially after recommended infrastructure changes are complete. Administering parent surveys at least every other year can help determine whether Safe Routes to School efforts are changing parents' attitudes towards walking and bicycling to school. The survey may include questions such as:

- What grade is your student in?
- How far does your student live from school?
- What is currently the most common way your student travels to school?
- What would you like to be the most common way your student travels to school?
- What would have to change for your student to walk more often to school?
- What would have to change for your student to bike more often to school?
- How much physical activity does your student engage in on an average day?

For tips on administering Parent Surveys, see the Virginia SRTS Program's Learn it. Do it. Live it! tip sheet. https://www.virginiadot.org/programs/resources/safe_routes/2016-2017/Resources/Parent_Survey_LDLv2.pdf. You can also contact your Local Technical Assistance Coordinator for more support.

Welcoming Campuses

Install additional bicycle parking. Bicycle racks should be installed at a convenient location near the main entrances. Students who bicycle to school must be able to lock their bicycles securely. Guidance regarding bicycle rack selection and placement is provided in this tip sheet developed by the Safe Routes to School National Partnership.
https://www.saferoutespartnership.org/sites/default/files/pdf/BikeParkingTipSheet-web.pdf

Safe Behaviors

Integrate pedestrian and bicycle safety education into the school curriculum. Pedestrian and bicycle safety education should occur in advance of major walk or bike to school events, so students are adequately prepared and have an opportunity to practice the skills they have learned. Two pedestrian safety resources are listed below, and both are free:

- The *Pedestrian Safer Journey* curriculum was developed by the Federal Highway Administration and features videos, quizzes and additional resources for educators teaching pedestrian safety. http://www.pedbikeinfo.org/pedsaferjourney/el_en.html
- *Bikeology* was developed by SHAPE America and the National Highway Traffic Safety Administration. The curriculum includes both knowledge-building lessons and on-the-bicycle lessons to becoming safe bicyclists. The program also provides a guide for parents to support safe bicycling at home. https://www.shapeamerica.org/publications/resources/teachingtools/qualitype/bicycle_curriculum.aspx

Incorporate information on walking and bicycling to school in communication with parents. For example, communications on arrival and dismissal procedures should highlight procedures and access routes for walkers and bikers. For more information, refer to the Safe Routes Partnership's arrival and dismissal guide: https://www.saferoutespartnership.org/sites/default/files/resource_files/improving_arrival_and_dismissal_for_walking_and_biking_1.pdf

Provide parents and guardians with safe driving information. This information should stress the importance of driving safely in school zones and being alert for pedestrians and bicyclists during arrival and dismissal. Information can be distributed via email, newsletters, social media, and/or events like back-to-school nights, health and safety fairs, Walk to School Days, or virtual meetings. Several organizations offer free materials on their websites:

- The National Center for Safe Routes to School has a helpful list of "Driving Tips Around Schools: Keeping Children Safe." http://apps.saferoutesinfo.org/lawenforcement/resources/driving_tips.cfm
- The Federal Highway Administration has an entire website devoted to reducing distracted driving, including information and free downloadable materials. http://www.distraction.gov/content/take-action/downloads.html
- The Virginia Safe Routes to School Program has a Zone In, Not Out school zone safety program which includes a safe driver pledge kit and yard signs. Resources are available on the Virginia SRTS website: http://www.virginiadot.org/programs/srts_zone_in_not_out.asp

Implement speed awareness and enforcement strategies to reduce motor vehicle speeds in the school zone. Yard signs, speed feedback devices, and photo enforcement can be used to encourage slow, cautious driving in the school zone. Photo enforcement has recently been enabled by the state of Virginia (See Appendix D. Key Policies Supporting Recommendations). A school zone enforcement area could be implemented at Dupont to raise funds for improvements. Yard sign graphics and other school zone safety resources are available on the Virginia SRTS website: http://www.virginiadot.org/programs/srts_zone_in_not_out.asp

Communicate with parents about arrival and dismissal procedures and expectations using email, the school website, and other appropriate means. The communication should indicate that walking, bicycling, and taking the school bus are the preferred means for students to access the school and address unsafe driver behaviors. See Arrival and Dismissal in the Zone for additional ideas about how to adjust arrival and dismissal to support sustainable transportation and safety: https://www.virginiadot.org/programs/resources/SRTS_2015/ZINO_Arrival_and_Dismissal_in_the_Zone.pdf

Supportive Culture

Participate in Walk to School Day. Walk to School Day is an excellent opportunity to get students walking, teach the benefits of an active lifestyle, and highlight walking and biking issues. Even if students can't walk to school, a Walk AT School event can help establish a walking culture. Resources to help plan Walk to School Day are available on the Virginia SRTS Program website. https://www.virginiadot.org/programs/srts_international_walk_to_school_day.asp

Participate in Bike and Roll to School Day. Bike to School Day is an excellent opportunity to get students biking and rolling to school, while continuing to teach the benefits of an active lifestyle and highlight walking and biking issues. Resources to help plan Bike and Roll to School Day are available on the Virginia SRTS Program website. https://www.virginiadot.org/programs/srts_national_bike_to_school_day.asp

Establish a frequent walker program. Frequent walker programs encourage students to walk by offering incentives to students who walk frequently or by establishing a competition between classes. A simple record keeping system must be created to track student walking. The Virginia SRTS Program provides a punch card template that can be used for this purpose. http://www.virginiadot.org/programs/srts_marketing_toolkit.asp

Appendices

A. Walkabout Participants

Name	Organization
Carla Fizer	Principal, Dupont Elementary School
Ryan Ponder	Teacher, Dupont Elementary School
Patricia Lobo	Assistant Principal, Dupont Elementary School
Aaron Reidmiller	Hopewell Director of Recreation & Parks
Austin Anderson	City Engineer, City of Hopewell
Melody Hackney	Superintendent, Hopewell City Schools
Tara Fitzpatrick	Richmond SRTS Coordinator, Greater Richmond Fit4Kids
Meghan Dorgan	Greater Richmond Fit4Kids
Heather Barrar	Regional Trails Program Director, FOLAR
Todd Scheid	Bicycle and Pedestrian Planner, VDOT
Katherine Graham	VA SRTS Coordinator, VDOT
Katie Heuser	VA SRTS Local Technical Assistance Coordinator, Toole Design
Wendy Phelps	VA SRTS LTAC Program Manager, Toole Design
Ayden Cohen	VA SRTS Program Assistant, Toole Design

B. Road Information Table

Street Name	Posted Speed Limit (mph)	Approximate Road Width	No. of travel lanes in each direction	AADT[3]	Road Classification[4]
Jackson Street	25	26 feet	1	Not Available	Minor Collector
South 21st Avenue	35	38 feet	1	Not Available	Minor Collector
Atlantic Street	35	32 feet	1	Not Available	Minor Collector
Pickett Street	35	38 feet	1	Not Available	Not Listed

[3] Average Annual Daily Traffic (AADT) counts from 2020 VDOT Daily Traffic Volume Estimates, https://www.virginiaroads.org/datasets/traffic-volume

[4] Road classification from VDOT, http://www.virginiadot.org/projects/fxn_class/maps.asp

C. Glossary of Infrastructure Terms

The following infrastructure treatments can be used to improve the bicycle and pedestrian environment around Dupont Elementary School. Location-specific recommendations are referenced under the section, Infrastructure (Engineering) Recommendations

Advisory Shoulders

Advisory shoulders are a usable shoulder for pedestrians and bicyclists on roadways that are too narrow to accommodate a bicycle lane or sidewalk. They are typically a visually distinct space along the edge of the roadway that prioritizes space for people to bike and walk. Unlike a traditional shoulder, an advisory shoulder is apart of the traveled way. In order to implement advisory shoulders an "Approved Request to Experiment" is necessary, as required by Section 1A.10 of the MUTCD.

Crosswalks

Marked crosswalks highlight the portion of the right-of-way where motorists can expect pedestrians to cross and designate a stopping or yielding location. They also indicate to pedestrians the optimal or preferred locations to cross the street. At midblock or other uncontrolled locations, crosswalks should use a high-visibility pavement marking pattern and be accompanied with pedestrian crossing signs that meet current Manual on Uniform Traffic Control Devices (MUTCD) standards. In addition, crosswalks can be raised on a speed table to be level with the sidewalk. This design helps slow drivers, increase pedestrian visibility and make it easier for pedestrians with mobility limitations to cross the street.

Curb Ramps

Curb ramps provide access between the sidewalk and roadway for people using wheelchairs, strollers, and bicycles. Curb ramps must be installed at all intersections and midblock locations where pedestrian crossings exist, as mandated by the 1990 Americans with Disabilities Act. In most cases, a separate curb ramp for each crosswalk at an intersection should be provided rather than a single ramp at the corner for both crosswalks. Current guidelines for curb ramp designs are included in the Public Right-of-Way Accessibility Guidelines, Chapter R3: Technical Requirements. (http://www.access-boaRoadgov/guidelines-and-standards/streets-sidewalks/public-rights-of-way/proposed-rights-of-way-guidelines/chapter-r3-technical-requirements)

Crossing Islands

Crossing islands are raised median islands placed in the center of the street at intersection approaches or midblock. They allow pedestrians to cross one direction of traffic at a time by enabling them to stop partway across the street and wait for an adequate gap in traffic before crossing the second half of the street. They can reduce crashes between vehicles and pedestrians at uncontrolled crossing locations on higher volume multi-lane roadways where gaps are difficult to find, particularly for slower pedestrians, e.g. disabled, older pedestrians, and children. The application would need to be studied before implementing crossing islands on state roads.

Curb Extensions

Curb extensions extend the curb line into the roadway. They can improve the ability of pedestrians and motorists to see each other, reduce crossing distances (and thus exposure to traffic), provide additional pedestrian queuing space, and slow motor vehicle turning speeds.

High-Visibility Crosswalks

While standard crosswalks use transverse lines (two parallel lines), high-visibility crosswalks also use bar-pairs, ladders, longitudinal lines, or zebra patterns to improve detection of the crosswalk.

In-Street Pedestrian Crossing Signs

In-street pedestrian crossing signs placed in the roadway at pedestrian crossing locations warn drivers and encourage yielding.

Manual on Uniform Traffic Control Devices (MUTCD)

This document produced by the Federal Highway Administration specifies the standards that traffic signals, signs, and roadway markings must adhere to including shapes, colors, fonts, and placement. The *2011 Virginia Supplement to the MUTCD* contains standards and guidance specific to Virginia.

Pedestrian Lighting

Lighting should be provided near transit stops, commercial areas, or other locations where night-time or pre-dawn pedestrian activity is likely. Pedestrian-scale lighting such as street lamps helps illuminate the sidewalk and improves pedestrian safety and security.

Public Right-of-Way Accessibility Guidelines (PROWAG)

The United States Access Board produces guidelines to ensure all pedestrians have equal access to sidewalks and streets, including crosswalks, curb ramps, street furnishings, pedestrian signals, parking, and other components of public rights-of-way.

School Speed Limit Signs

School speed limit signs alert drivers that they are entering a school zone and need to prepare to yield to students that may be crossing the street. School speed limits vary based on local laws and typically range from 15 to 25 mph. School speed limit signs with lights that flash (flashing beacons) during arrival and dismissal times can be more effective on busy streets, however, all school speed limit zones require occasional police enforcement to ensure driver compliance. Refer to the Manual on Uniform Traffic Control Devices (MUTCD) for more guidance.

Sidewalks

Sidewalks provide pedestrians and younger bicyclists a safe place to travel that is separate from motor vehicles. It is important to provide a continuous sidewalk route, connected with high-visibility crosswalks so that pedestrians are not

forced to share travel space with motor vehicles. All sidewalks should meet ADA guidelines for width and cross-slope and include curb ramps that meet ADA guidelines at street crossings.

Traffic Calming

Traffic calming measures are designed to improve safety for motorists, pedestrians and bicyclists, usually by altering the physical design of the roadway to reduce motor vehicle speeds. Common traffic calming measures include speed tables, curb extensions, chicanes, and neighborhood roundabouts.

D. Key Policies Supporting Recommendations

VDOT Crosswalk Policy VDOT IIM-TE-384.05

VDOT's crosswalk policy states that potential advantages of marked crosswalks include:

- Providing a visible reminder to motorists that pedestrians may be present.
- Directing pedestrians to the location of the recommended crossing path.
- Reducing the likelihood that drivers will encroach the intersection or block pedestrian traffic when stopping for a STOP or YIELD sign
- Designating the location of approved school crossings or crossings along recommend school routes

For marked crosswalks at stop-controlled intersections, relevant criteria are provided in Section 5.2 of the policy, including:

- The crossing is part of a walking route approximately ¼ mile or less between a residential development of moderate or heavy density and a school or recreational area,

For marked crosswalks at uncontrolled intersections, relevant criteria are provided in Section 5.3 of the policy, including:

- The crossing is on a direct route between significant pedestrian generator(s) and attractor(s), where engineering judgment determines that the crosswalk would likely see a minimum of 20 pedestrians/bicyclists using the crosswalk in an hour. That threshold may be reduced to 10 pedestrians per hour if the crossing is expected to be used by a high number of vulnerable pedestrians (pedestrians who are disabled, age 65 and over, or age 15 and under), or if the reduced volume is met for three consecutive hours.
- The location is 300 feet or more from another marked crosswalk across the same road.
- Drivers will have an unrestricted view of the entire length of the crosswalk, including the waiting areas at either end of the crosswalk.
    - 25mph = 155 feet on level grade
    - 35 mph = 250 feet on level grade

[5] http://www.virginiadot.org/business/resources/IIM/TE-384_Ped_Xing_Accommodations_Unsignalized_Locs.pdf

- The required engineering study determines that the introduction of a marked crosswalk will not produce an unacceptable safety hazard.

HB 1442 Photo speed monitoring devices; civil penalty.
Summary as enacted with Governor's recommendation

Photo speed monitoring devices; civil penalty. Authorizes state and local law-enforcement agencies to operate photo speed monitoring devices, defined in the bill, in or around school crossing zones and highway work zones for the purpose of recording images of vehicles that are traveling at speeds of at least 10 miles per hour above the posted school crossing zone or highway work zone speed limit within such school crossing zone or highway work zone when such zone is indicated by conspicuously placed signs displaying the maximum speed limit and that such photo speed monitoring devices are used in the area. The bill provides that the operator of a vehicle shall be liable for a monetary civil penalty, not to exceed $100, if such vehicle is found to be traveling at speeds of at least 10 miles per hour above the posted highway work zone or school crossing zone speed limit by the photo speed monitoring device. The bill provides that if the summons for a violation is issued by mail, the violation shall not be reported on the driver's operating record or to the driver's insurance agency, but if the violation is personally issued by an officer at the time of the violation, such violation shall be part of the driver's record and used for insurance purposes. The bill provides that the civil penalty will be paid to the locality in which the violation occurred if the summons is issued by a local law-enforcement officer and paid to the Literary Fund if the summons is issued by a law-enforcement officer employed by the Department of State Police. This bill incorporates HB 621 and HB 1721.

Click here for link to full text of enacted bill.