Burnley-Moran Elementary School Walkabout Report

Figure 1. Main entrance to Burnley-Moran

Introduction

On June 30, 2020, stakeholders at Burnley-Moran Elementary School in Charlottesville, Virginia met to discuss conditions for walking and bicycling to school and identify potential projects to be included in a future Smart Scale grant application. The meeting was held online due to the ongoing COVID-19 pandemic. Participants included the principal, representatives from the City of Charlottesville, a member of the Martha Jefferson Neighborhood Association, the Safe Routes to School Coordinator for Charlottesville, Burnley-Moran parents, and representatives from the Virginia Department of Transportation. The names of the Walkabout Team members are listed in Appendix A.

Data Collection

Data collection for the Burnley-Moran walkabout was conducted through an online interactive map (Figure 2), fieldwork by Virginia Safe Routes to School Program staff members, and the online walkabout meeting. The online interactive map was distributed in advance of the fieldwork and online walkabout meeting. It enabled stakeholders to upload photos, videos, and written comments about walking and bicycling conditions near the school. This input was reviewed by Virginia Safe Routes to School Program staff members before conducting fieldwork in the school area and reviewed again during the online meeting. The online meeting enabled Virginia Safe Routes to School Program staff and stakeholders to share additional observations, discuss school division policies, arrival/dismissal procedures, and discuss project priorities.

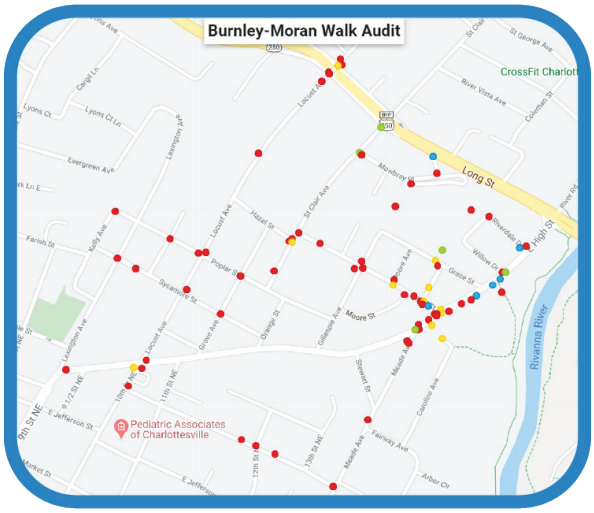

Figure 2. Screenshot of online mapping tool

Existing Conditions

School Location and Travel Patterns

Burnley-Moran Elementary School is located at 1300 Long St, Charlottesville, VA 22901 and serves 380 students in grades PreK-5. The school is on the eastern side of the attendance zone, which covers six neighborhoods: Westhaven, North Downtown, Locust Grove, Martha Jefferson, Little High, and East Little High. The attendance zone is bisected by US-250 Bypass/Long St (Figure 3).

Burnley-Moran Elementary School Attendance Boundary

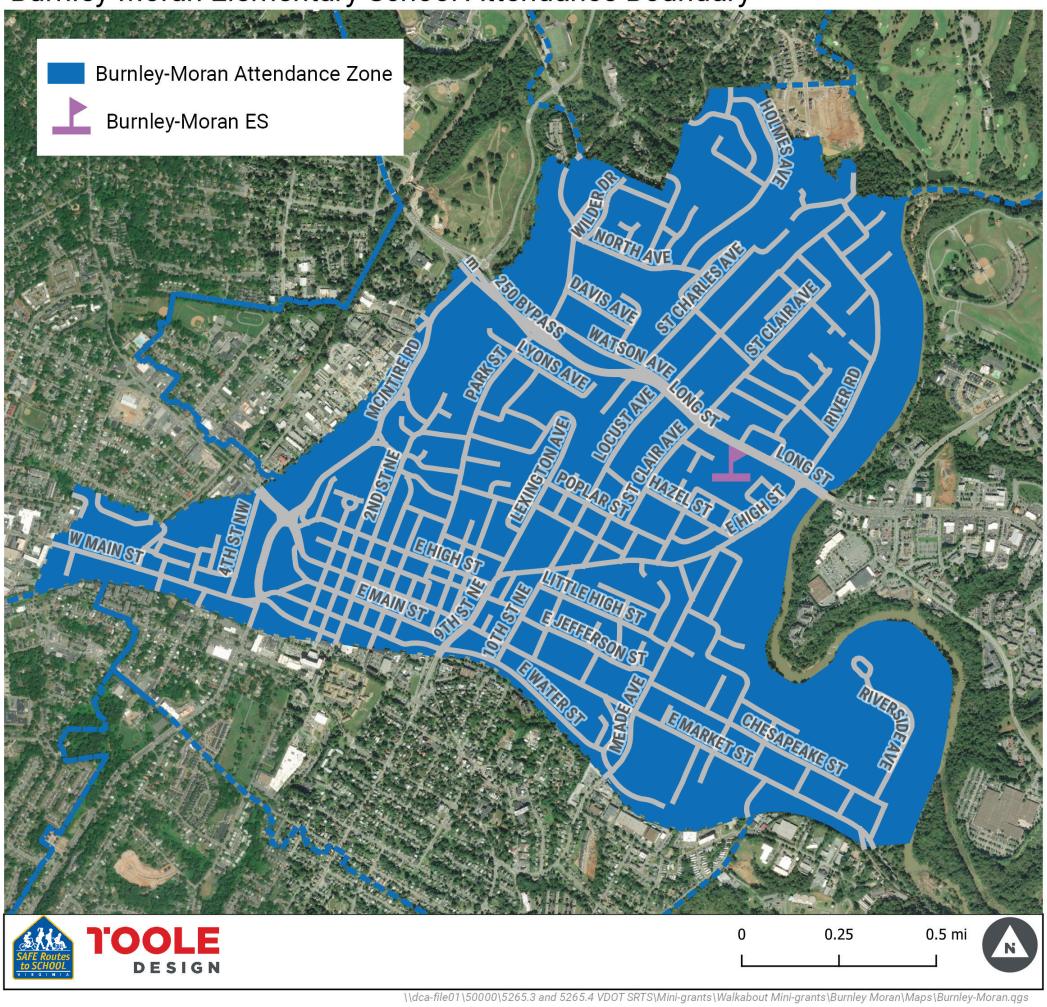

Figure 3. Attendance Boundary Map

According to the latest Student Travel Tally conducted over multiple days in October 2019 (Table 1), approximately 15% of Burnley-Moran students walk or bicycle to school. The majority (61%) of students ride the school bus, for which all are eligible. However, there is significant potential to increase walking and bicycling to Burnley-Moran, due to the many students who live within a comfortable walking or bicycling distance. Approximately, two-thirds live within 1 mile of school and all live within 2 miles (Figure 4).

Table 1. Fall 2019 Student Travel Tallies by Time of Day

	Number of Trips	Walk	Bike	School Bus	Family Vehicle	Carpool	Transit	Other
Morning	1085	14%	1%	60%	22%	2%	0%	0.6%
Afternoon	1035	14%	1%	62%	20%	2%	0%	0.6%

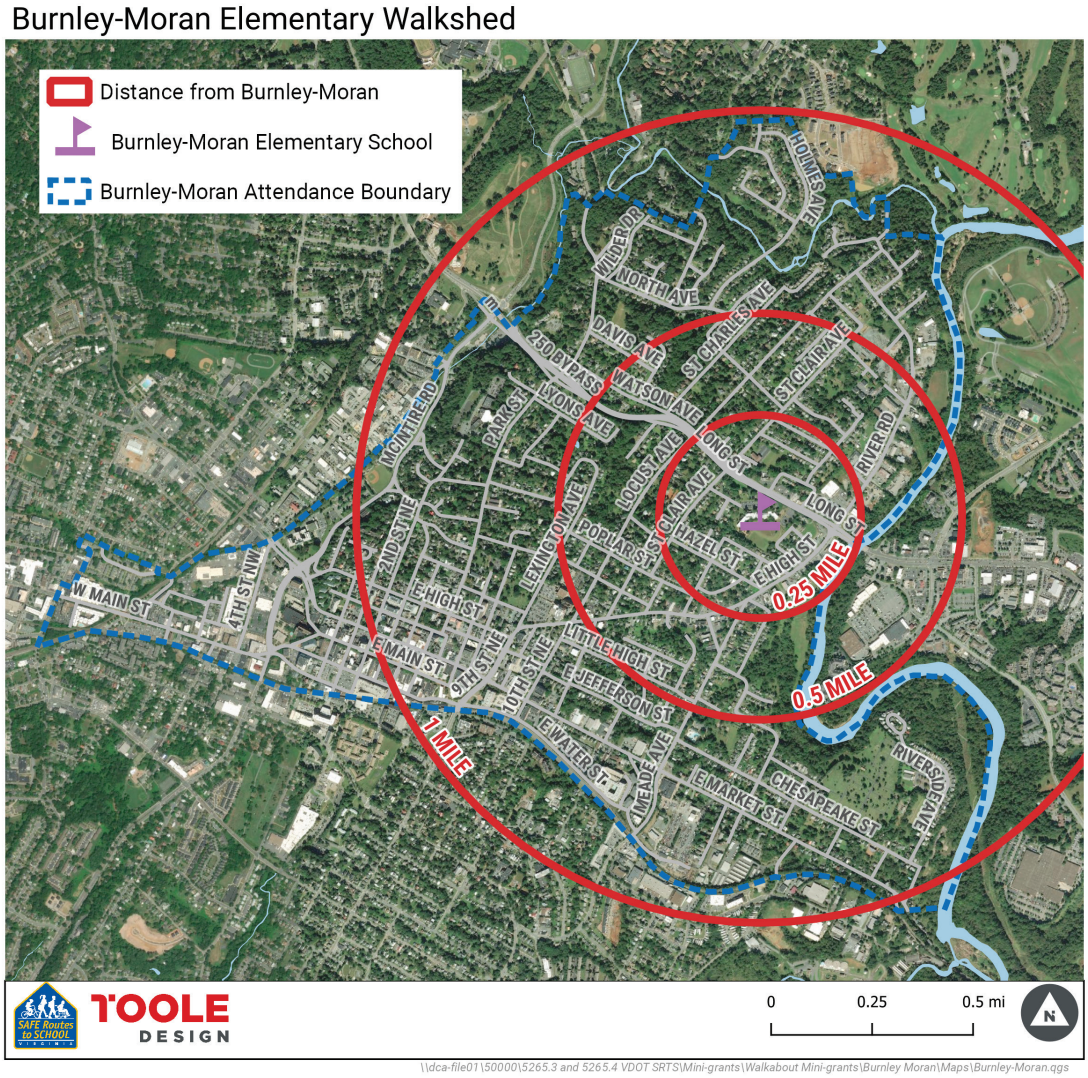

Figure 4. Walkshed Map

Pedestrian and Bicycle Infrastructure

The street network around Burnley-Moran Elementary School is relatively well connected, helping to make walking and bicycling feasible options for school travel. However, US 250 is a significant barrier. Students have only one opportunity to cross, at Locust Ave. There are sidewalk gaps on key school walking routes, such as East High St and Hazel St (Figures 4 and 5). In addition, crossings at key intersections such as Hazel St and East High St, St Clair Ave and Hazel St, and the Locust Ave bridge are uncomfortable and potentially unsafe for pedestrians and bicyclists due to relatively high motor vehicle speeds, infrequent gaps in traffic, lack of driver yielding, and/or obstructed sightlines between pedestrians, bicyclists, and drivers.

Figure 5. Missing sidewalk along the parking lots on East High St

Figure 6. Disconnected sidewalk on Hazel St

The connectivity of the bicycle network near Burnley-Moran could also be improved. There is a buffered bicycle lane on the west side of Locust Ave between St Charles Ave and East High St. The Rivanna Trail along the Rivanna River is a paved shared-use path with three nearby entrances on East High St: behind The Pie Chest (1518 E. High Street), off of Duke St, and at the intersection with US-250. Neighborhood streets can be used for bicycling, but some, like Hazel St between East High St and St. Clair Ave, may be uncomfortable to ride on due to relatively steep grades and large speed differentials between cars and bicyclists.

Bicycle parking accommodations at the school include an inverted U style rack with 8 spaces and a comb style rack with approximately 10 spaces. Both are located on the north side of the school near the key entrances to the school. They are very often full.

Walkabout Summary

Dismissal Overview

Students are dismissed at 2:30 p.m. Car riders are picked up at the loop off of Riverdale Dr and Willow Dr. School buses line up in the loop on the north side of the school near the front entrance. Principal Korab helps manage the bus loop. Once buses leave the front loop, cars may enter the loop off of US-250. Walkers can use the south door and paved walkway to Willow Drive. Students who walk to south can also use two connections between the school property and Grace St. One connection links to the intersection of Grace St and Ward Ave and is paved. The other links to the intersection of Grace St and Gillespie Ave, is unpaved, and is relatively steep.

At the time of the walkabout, dismissal procedures for fall 2020 were still being considered.

Key Barriers and Issues

The key barriers and issues identified by the Walkabout Team and Virginia SRTS Program staff are listed below. Location specific issues and recommendations are listed on the following pages. For additional information regarding key roadways mentioned in this barriers and issues discussion, including speed limits and annual average daily traffic (AADT), see Appendix B.

- **Missing sidewalks -** The sidewalk network is incomplete and there are notable gaps near the school.
- **Difficult crossings -** Several of the pedestrian crossings near the school could be modified to improve pedestrian safety and comfort. Issues include missing or low-visibility crosswalk markings, wide curb radii, which enable higher speed turns and increase pedestrian crossing distances, lack of motor vehicle yielding at crosswalks, and obstructed sightlines.
- **Motor vehicle speeds and volumes -** East High St and US-250 Bypass are major barriers to students walking and bicycling due to the high vehicle volumes and speeds. East High St is a key commuter route to downtown Charlottesville.
- **Access management** – The south side of East High St is characterized by strip commercial development with linked parking lots, multiple driveways, and low curbs that are easily mounted by motor vehicles, creating multiple, and sometimes unpredictable, conflict points between pedestrians and motorists.

Infrastructure (Engineering) Recommendations

A map of the infrastructure recommendations for Burnley-Moran Elementary School is provided in Figure 8 below. This map is followed by information detailing the issues and recommendations, with photos of existing conditions, at each location. A glossary of engineering terms is provided in Appendix C and key policies supporting the recommendations are highlighted in Appendix D. Appendix E includes a rough conceptual diagram illustrating recommendations for the intersection of East High St and Meade Ave.

Figure 7: Infrastructure Recommendations Map

Map ID 1: Locust Ave Bridge at Watson St

Issue: Difficult crossing

The Locust Ave bridge is a key route for students who live north of US 250 Bypass. The Watson Ave approaches are STOP-controlled. The Locust Ave approaches are uncontrolled. Sightlines are limited due to the slope of Watson Ave on both approaches and a hedge on the eastern corner that makes it difficult for drivers on Watson Ave and pedestrians waiting at that corner to see each other. The existing marked crosswalks have low visibility markings. See Figure 8.

Figure 8. Low-visibility crossings at the intersection of Locust Ave & Watson St

Near-Term Recommendations (within 1 year)

- Re-mark northeast and southeast low-visibility crosswalks with VDOT-approved high-visibility markings.
- Remove crosswalk on the northwest leg of Watson Ave. There is no sidewalk on the west side of Locust Street south of US 250 Bypass.
- Trim hedge on east corner to improve visibility between pedestrians and drivers on westbound Watson Ave.

Short-Term Recommendations (1 to 3 years)

- Install in-street crossing sign (R1-6) before the marked crosswalk across Locust Ave (northeast crossing).
- Install detectible warning surfaces on all curb ramps.

Map ID 2: Locust Ave Bridge at St. Charles Ave/Long St

Issue: Difficult crossing

The Locust Ave bridge is a key route for students who live north of 250 Bypass. The St. Charles Ave and Long St approaches are STOP-controlled. The Locust Ave approaches are uncontrolled. Sightlines are limited due to the slope and curve of St. Charles Ave. Although there is an existing high-visibility crosswalk across Locust Ave, the crosswalk across Long St has low-visibility markings. See Figure 9.

Figure 9. Intersection of Locust Ave & Long St

Near-Term Recommendations (within 1 year)

- Re-mark the existing low-visibility crosswalk on Long St with VDOT-approved high-visibility markings.
- Install in-street crossing sign (R1-6) before the marked crosswalk across Locust Ave (southwest crossing).

Short-Term Recommendation (1 to 3 years)

- Upgrade existing curb ramps to comply with ADA standards (e.g., by adding detectable warning surfaces).

Map ID 3: East High St between 250 Bypass and Meade Ave

Issue: Poor access management

Vehicles are able to enter the parking lots along the southeast side of East High St at many locations due to the lack of sidewalks and the poor definition of curb lines and driveway aprons between parking lots and roadway. Lack of access management creates multiple points of conflict between pedestrians and vehicles. Students currently avoid walking on East High St due to these conditions, but it is a key corridor for pedestrians and should be improved to address the safety of students walking to school. See Figure 10.

Figure 10. Parking lots on the southeast side of East High St

Near-Term Recommendation (within 1 year)

- Work with property owners to develop and implement an access management plan that discourages unsafe behaviors and defines the entrances/exits to the parking lots on the south side of East High St. Limiting the number of parking lot entrances and/or reducing their width reduces the number and frequency of conflict points between pedestrians and vehicles.

Issue: Missing sidewalk

The south side of East High St has disconnected sidewalks. The street is an essential route for students, but the current infrastructure requires pedestrians to walk through a lawn, under the awning of the Pie Chest, and along the edge of parking lots with no separation from vehicles on East High St, where the average daily traffic volume is about 20,000 vehicles per day. See Figure 11 and Figure 12.

Figure 11. Disconnected sidewalk on the southeast side of East High St

Figure 12. Desire path on the southeast side of East High St

Long-Term Recommendation (More than 7 years)

- Install a continuous sidewalk on the south side of East High St. The sidewalk should be at least 4 feet wide and ideally 5 feet or more. If insufficient public right-of-way is available outside existing motor vehicle travel lanes, consider narrowing the travel lanes or obtaining easements from property owners.

Map ID 4: East High St and Willow Dr

Issue: Difficult crossing
There is an existing high-visibility marked crosswalk across East High St with a pedestrian crossing sign (W11-2) supplemented by a rectangular rapid flashing beacon (RRFB). The corner on the north side of the crosswalk has a relatively large radius, enabling higher speed motor vehicle turns. There is no marked crosswalk across Willow Dr.

Short-Term Recommendation (1 to 3 years)

- Further enhance the East High St crossing by installing an in-street school crossing sign (R1-6, S4-3P) in advance of the crosswalk and replacing the existing pedestrian crossing sign (W11-2) with a school crossing assembly (S1-1, W16-7P).

Medium-Term Recommendations (4 to 7 years)

- Implement a curb radius reduction on the north side of the existing marked crosswalk.
- Mark high-visibility crosswalk across Willow Dr.

Map ID 5: East High St and Grace St

Issue: Difficult crossing
The northeast corner has a relatively large radius, enabling higher speed motor vehicle turns. In addition, a telephone pole near the corner creates a sidewalk pinch point. There is no marked crosswalk across Grace St and the existing curb ramps are not ADA-compliant.

Medium-Term Recommendation (4 to 7 years)

- Implement a curb radius reduction on the northeast corner and address the sidewalk pinch point to provide at least 3 feet of clear width to sidewalk users.
- Install ADA-compliant curb ramps (may require widening sidewalk and relocating the utility pole on the northeast corner).

Map ID 6: East High St and Hazel St (Hazel St Crossing)

Issue: Missing crossing

There is no crosswalk on the northwest leg of Hazel St at East High St. Pedestrians traveling on existing sidewalks on the northwest side of High St should be able to cross the street safely.

Near-Term Recommendation (within 1 year)

- Install a high-visibility crosswalk across Hazel St.

Issue: Motor vehicle turning speeds

The walkabout team noticed skid marks on Hazel St made by vehicles turning too quickly. Fast turning speeds are unsafe for pedestrians crossing Hazel St or using the marked crossing on East High St. See Figure 13.

Figure 13. Skid marks at the intersection of East High St and Hazel St

Near-Term Recommendation (within 1 year)

- Construct temporary curb extensions on the north and west corners of the intersection with flex posts. Curb extensions shorten pedestrian crossing distance and reduce curb turning radii, which encourages slower motor vehicle turns.

Short-Term Recommendation (1 to 3 years)

- Formalize curb extensions with concrete to provide more permanent safety benefits. Install ADA-compliant curb ramps.

Map ID 7: East High St and Hazel St (East High St crossing)

Issue: Lack of motorist yielding

Students who live in the Woolen Mills neighborhood use this intersection to access Hazel St. Rather than stopping at the crosswalk when a pedestrian approaches, drivers often turn into the Charlottesville Glass & Mirror parking lot and travel parallel to East High St in the parking lot. The minimal grade difference between the parking lot and roadway enables this behavior. Motorists that travel in the parking lot to avoid yielding endangers people walking in the parking lot and waiting to cross East High St. Access to CAT bus stops on either side of East High St would benefit from improvements. See Figure 14 and Figure 15.

Figure 14. Marked crosswalk on East High St at Hazel St

Figure 15. Marked crosswalk on East High St at Hazel St (Google Street View, 2020)

Near-Term Recommendations (within 1 year)

- Install flex posts in the parking lot and along the de facto sidewalk to discourage motorists from driving through the parking lot to avoid yielding at the crosswalk.
- Install signage at the crosswalk to increase the visibility of pedestrians and to warn motorists of pedestrian presence:
    - Install in-street school crossing sign (R1-6, S4-3P).
    - Replace existing pedestrian crossing signage (W11-2) with school crossing assembly (S1-1, W16-7P).

Short- to Medium-Term Recommendation (1 to 7 years)

- Install a rectangular rapid flashing beacon (RRFB) or pedestrian hybrid beacon (PHB) at the crosswalk to increase motorist yielding rates (PHB preferred).

Long-Term Recommendation (more than 7 years)

- Install sidewalk on the south side of East High St and implement access management. See Map ID 3.

Map ID 8: Jak'n Jil and Blue Ridge Graphics Parking Lot

Issue: Missing sidewalk and poor access management

There is no sidewalk on the south side of East High St, so students walking near Jak'n Jill and Blue Ridge Graphics must walk between the street and the front parking lots. Vehicles often drive parallel to East High St in the parking lot, so the traffic pattern is unpredictable for pedestrians. This is the site of a pedestrian fatality in October of 2018, where a person standing near a parked vehicle was pinned to the Jak'n Jill sign by a motorist driving through the parking lot. See Figure 16 and Figure 17.

Figure 16. Jak n Jil parking lot off of East High St (Google Street View, 2020)

Figure 17. Jak n Jil parking lot off of East High St

Near-Term Recommendation (within 1 year)

- Erect triangular barrier between Blue Ridge Graphics and Jak n' Jill Restaurant to guide vehicles into parking lot while preventing travel parallel to East High St. Barrier may be made of flex posts, planters, or other vertical element that prevents motor vehicle travel while remaining permeable for pedestrians. If a barrier extending into the parking lot is infeasible in the immediate-term due to the need to coordinate with property owners, install barrier within the public right of way at the same location.

Medium-Term Recommendation (4 to 7 years)

- Install sidewalk on the south side of East High St and implement access management. See details for Map ID 3.

Map ID 9: Jak'n Jil Parking Lot and Duke St Entrance

Issue: Poor access management

The parking lot behind Jak'n Jil leads to Duke St and an access road to the Rivanna Trail. Many students walk on Caroline Ave, to Duke St, and through the parking lot. Allowing vehicles to cut through the parking lot to access East High St creates unpredictable traffic patterns. See Figure 18.

Figure 18. Jak n Jil back parking lot leading to Duke St (Google Street View, 2020)

Near-Term Recommendation (within 1 year)

- Install flex posts or gated barrier at the end of the City-maintained portion of Duke St to prevent motor vehicle access to Jak'n Jil parking lot. Ensure treatment continues to allow pedestrian and bicyclist access between the parking lot and Duke St to maintain access to the Rivanna Trail. Ensure that treatment continues to permit emergency vehicle access. Install "No Outlet" (W14-2) sign on Caroline Ave at Fairway Ave to communicate the change in traffic pattern.

Map ID 10: Meade Ave and East High St

Issue: Missing crossings

There is one marked crosswalk on the west leg of East High St. The east and south legs of the intersection are unmarked. See Figure 19 and Figure 20.

Figure 19. Intersection of East High St and Meade Ave (Google Street View, 2020)

Figure 20. Intersection of East High St and Meade Ave (Google Street View, 2020)

Short-Term Recommendation (1-3 years)

- Re-mark the existing low-visibility crosswalk with VDOT-approved high-visibility markings

Medium-Term Recommendation (4-7 years)

- Mark crosswalk with VDOT-approved high-visibility markings and ADA-compliant curb ramps across Meade Ave and across East High St on west side of the intersection. Consider installed high-visibility crosswalk across east leg (would require signal changes).

Issue: High motor vehicle turning speeds

Vehicles turning eastbound from Meade Ave onto East High St often travel at unsafe speeds, sometimes jumping the southeast curb. The current geometry of the intersection allows Meade Ave to function similar to a slip lane.[1]

Medium-Term Recommendations (4-7 years)

- Reconfigure intersection as a T-intersection by installing a curb extension on east side of intersection. Curb extension can be created with flex posts. See Appendix F for a rough conceptual illustration.
- Install accessible pedestrian signals for all marked crosswalks.
- Shorten the striped median on East High St, to enable left-hand turns from westbound East High St to southbound Meade Ave.
- Reposition signal facing northbound Meade Ave traffic to the southwest, so it can be easily seen by drivers in the new configuration
- Investigate opportunity to restrict right turns on red.

Long-Term Recommendation (more than 7 years)

- Formalize curb extension with concrete and install high-visibility crosswalk on eastern leg.

[1] A slip lane is a traffic lane that allows vehicles to turn right at an intersection without stopping. Slip lanes can be dangerous for pedestrians because motorists have low visibility and do not need to follow the traffic signal or stop sign at the main intersection.

Map ID 11: Hazel St between East High St and St. Claire Ave

Issue: Missing sidewalks

Hazel St is an essential connection in the Burnley-Moran pedestrian network. Sidewalks are present on both sides of the street but are disconnected. The curb to curb width of Hazel St ranges from approximately 35' in to 42'. See Figure 21.

Figure 21. Disconnected sidewalk on Hazel St

Near-Term Recommendation (within 1 year)

- Create a continuous pedestrian space on the south side of Hazel St by restricting parking and using parking stops, flex posts, or other barriers to delineate space for pedestrian use.

Medium-Term Recommendation (4 to 7 years)

- Complete sidewalks on Hazel St, focusing initially on the south side where facilities are most complete.

Issue: Missing bicycle facility connection

Hazel St also plays a key role in the Burnley-Moran bicycle network and provides a connection between the Locust Ave bike lanes and the Rivanna Trail; however, Hazel St climbs relatively steeply from East High St and there are no dedicated bicycle facilities.

Medium-Term Recommendation (4 to 7 years)

- Install a climbing bicycle lane on the north side of Hazel St. Climbing lanes are used on hills to give bicyclists space to take their time riding uphill.

Map ID 12: Hazel St and Ward Ave

Issue: Missing connection for pedestrians
Many students travel from Hazel St to Ward Ave to access the back entrance to Burnley-Moran's field. There are currently no existing marked crosswalks across Hazel St.

Near-Term Recommendation (within 1 year)

- Mark high-visibility crosswalk on the western leg of Hazel St to the proposed pedestrian facility on the west side of Ward St. Install an in-street school crossing sign (R1-6, S4-3P) to warn drivers.

Medium-Term Recommendation (4 to 7 years)

- Install a curb extension on the south side of Hazel St to shorten the crossing distance for pedestrians. Include ADA-compliant curb ramp.

Map ID 13: Ward Ave

Issue: Missing sidewalk

Ward Ave is an important connection for pedestrians traveling from Woolen Mills and other neighborhoods via East High St. This neighborhood street has relatively low motor vehicle traffic. There are sidewalks. See Figure 22.

Figure 22. Ward Ave is a wide street with on-street parking on both sides

Near-Term Recommendation (within 1 year)

- Reconfigure Ward Ave as a yield street. Yield streets are narrow streets that require drivers going in one direction to pull over and "yield" to drivers going in the other. A yield street on Ward Ave could be established by:
    - On the west side, using a continuous line of parking stops to create a pedestrian area. Install No Parking signs where necessary.
    - On the east side, using pavement markings to designate parking spots and space for drivers to pull over and allow others to pass.

Medium-Term Recommendation (4 to 7 years)

- Formalize the pedestrian facility on the west side of Ward Ave with a sidewalk. Install an ADA-compliant curb ramp to the proposed crossing on Hazel St (Map ID 11).

Map ID 14: Grace St and Ward Ave

Issue: No connection to path that leads to Burnley-Moran rear athletic fields

A paved path between 1421 and 1423 Grace St leads to the athletic fields and is commonly used by students. There are no sidewalks on Grace St.

Near-Term Recommendation (within 1 year)

- Use parking stops on the south side of Grace St to continue the proposed pedestrian facility from Ward St. In addition, install a high-visibility crosswalk from the proposed pedestrian facility to the Burnley-Moran path.

Medium-Term Recommendation (4 to 7 years)

- Formalize the pedestrian facility on the south side of Grace street with a sidewalk. Ensure curb ramps to the proposed crosswalk are ADA-accessible. Install pedestrian crossing signage with school crossing assembly (S1-1, W16-7P).

Map ID 15: Hazel St and St. Clair Ave

Issue: Low crosswalk visibility

The existing crosswalk on St. Clair Ave is marked and signed, but crossing pedestrians are hidden by the slope of St. Clair Ave for vehicles traveling southbound. Thru traffic on St. Clair Ave is not controlled by stop signs. This crossing is essential for pedestrians who access Burnley-Moran via Locust Ave. The crosswalk also connects the sidewalk on the south side of Hazel St to the western sidewalk on St. Claire Ave. See Figure 23.

Figure 23. Intersection of St. Clair Ave and Hazel St (Google Street View, 2020)

Near-Term Recommendations (within 1 year)

- Re-mark the existing low-visibility crosswalk with VDOT-approved high-visibility markings.
- Install flex post curb extensions on the east and west sides of the crosswalk to increase visibility and reduce pedestrian crossing distance.
- Signs should be installed or replaced to improve driver awareness of crossing pedestrians:
    - Install in-street school crossing sign before the marked crosswalk (R1-6, S4-3P).
    - Replace existing pedestrian crossing signage with school crossing assembly (S1-1, W16-7P).
    - Install school advance crossing assembly on the southbound approach 200 ft in advance of the crosswalk (S1-1, W16-2P)

Short-Term Recommendation (1 to 3 years)

- Formalize curb extensions with concrete. Ensure ADA-accessible curb ramps are installed with the curb extensions.

Medium-Term Recommendation (4 to 7 years)

- Install a raised crossing. A raised crossing increases the visibility of students walking. Raised crossings may present issues for emergency vehicles

Issue: Missing Bicycle Connection

Hazel St provides a connection for bicyclists between Locust Ave, Burnley-Moran Elementary, and the Rivanna trail; however, there no bicycle facilities or wayfinding signage are provided to make bicyclists and drivers aware of this connection.

Short-Term Recommendation (1 to 3 years)

- Install MUTCD-compliant wayfinding signs directing bicyclists to Burnley-Moran, Locust Ave, and the Rivanna trail.
- Install shared lane markings on St. Clair Ave between the Hazel St intersections to assist with wayfinding and reinforce that drivers must share the road with bicyclists.

Map ID 16: Hazel St between Locust Ave and St. Claire Ave

Issue: Missing bicycle facility connection

Hazel St is an important route for connection between the facilities on Locust Ave and the Rivanna Trail; however, Hazel St currently does not have any bicycle facilities. Hazel St is also important for students bicycling from the southern neighborhoods.

Short-Term Recommendation (1 to 3 years)

- Install MUTCD-compliant wayfinding signage and shared lane markings on Hazel St between Locust Ave and St. Claire Ave to increase driver awareness of bicyclists and to provide wayfinding.

Map ID 17: Locust St/10th St NE and East High St

Issue: Difficult crossing

This intersection provides access for many neighborhoods; Principal Korab expressed concern about this intersection and would like a crossing guard stationed there. Traffic volumes are relatively high for the area. The south and west crosswalks are long. See Figure 24.

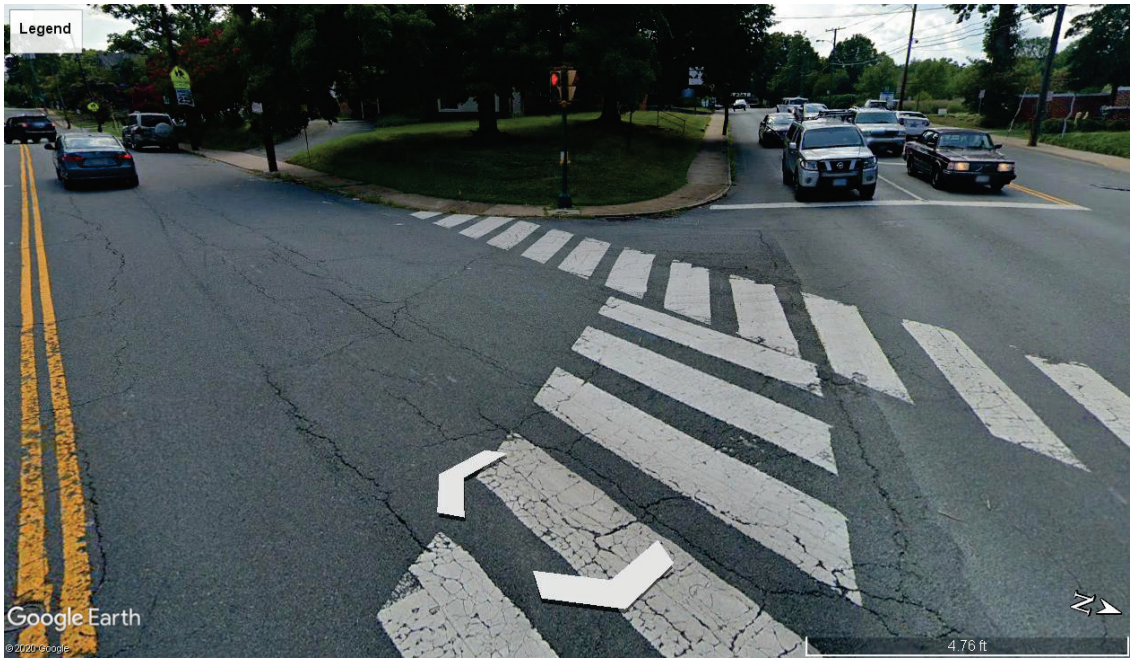

Figure 24. Extended sidewalk at the intersection of Locust Ave and East High St (Google Street View, 2020)

Near-Term Recommendation (within 1 year)

- Install flex posts on southwest corner for curb radius reduction and to reduce crossing distance of west crossing.

The City of Charlottesville will redesign this intersection with a streetscape project in the next 2-3 years.

Map ID 18: Mobray Pl

Issue: Motor vehicle speeds

Mobray Pl is one of the two entrances to the front of the school and is used by both buses and parents in personal vehicles. Walkabout participants reported vehicles traveling at high speeds, partially due to the downhill nature of the street. Mobray Pl is also a key route for students walking and biking from the north and west.

Near-Term Recommendation (within 1 year)

- Install a median island at the entrance to the school property. The median space could be used to post signs about motor vehicle speeds and the arrival/dismissal process.

Map ID 19: Entrance off of 250 Bypass

Issue: Missing sidewalk

While the front entrance to the school is not as well used by students as Mobray Place, students should be able to safely travel from 250 Bypass to the front of the school. The current sidewalk ends at the residential driveway off of the school driveway. See Figure 25.

Figure 25. Entrance to Burnley-Moran off of Long St is missing a continuous sidewalk (Google Street View, 2020)

Short-Term Recommendation (1 to 3 years)

- Complete the sidewalk on the western side of the entrance road.
- Install high-visibility crosswalk markings to the median island in the Burnley-Moran parking lot.
- Use color and/or striping to indicate that the area south of the section of median protected by bollards is a pedestrian priority zone.

Map ID 20: Path to Back Athletic Field

Issue: Disconnected path

A paved path between 1421 and 1423 Grace St leads to the back athletic fields and is commonly used by students. The path is about 90' long and ends at the edge of the athletic field. Students walk on the field to enter the building at one of the back entrances of the school. See Figure 26.

Figure 26. Path to back of athletic field off of Grace St

Long-Term Recommendation (more than 7 years)

- Extend the path and connect it to the existing paths on the school property. The new path must be ADA compliant.

Map ID 21: Locust Ave Bridge at St. Charles Ave/Long St

Issue: Insufficient bicycle parking capacity
The current racks are frequently full and the school has reached out about obtaining another rack.

Short-Term Recommendation (1 to 3 years)

- Install additional bicycle parking near a main entrance to the school that bicyclists are likely to find convenient. The rack should support the bicycle frame at two points and enable students to lock both the front wheel and frame to the rack with a standard U lock.

Programmatic Recommendations

SRTS programmatic recommendations are designed to work in conjunction with each other and the infrastructure recommendations and 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 four "E's" of Safe Routes to School: Education, Encouragement, Enforcement, and Evaluation.[2]

Education

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. Both are free:

- The *Child Pedestrian Safety Curriculum* was developed by the National Highway Traffic Safety Administration. The curriculum emphasizes skills practice and includes take home tip sheets for parents in English and Spanish. https://www.nhtsa.gov/pedestrian-safety/child-pedestrian-safety-curriculum
- 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

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.

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 National Safety Council also has a page dedicated to distracted driving resources. Find it here http://www.nsc.org/learn/NSC-Initiatives/Pages/distracted-driving-resources.aspx
- 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

[2] The fifth E is Engineering, included in this report under Infrastructure Recommendations.

Encouragement

Participate in International 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. Resources to help plan Walk to School Day are available on the Virginia SRTS Program website.
http://www.virginiadot.org/programs/srts_all_website_resources.asp

Help organize and support walking school buses. A walking school bus is a group of children walking to school with one or more adults. It can be as informal as two families taking turns walking their children to school or as structured as a planned route with meeting points, a timetable, and a schedule of trained volunteers. For additional information on walking school buses and bicycle trains, see the following Virginia SRTS Program.
https://www.virginiadot.org/programs/resources/safeRouteResources/5Es/VDOT_SRTS_-_Walking_School_Bus_and_Bike_Train_Webinar.pdf

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

Install more bicycle parking. Burnley-Moran Elementary School has two bicycle racks at the front of the school. Other bicycle racks should be installed at a convenient location near the main entrances to enable students who ride their bikes to lock them up 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

Enforcement

Revise arrival and dismissal procedures to prioritize students walking and biking. Separation of modes is key to a safe arrival and dismissal process. Other best practices are staff involvement and clear and frequent communications with parents that includes information about walking and bicycling to school. For more information, contact the Charlottesville County Safe Routes to School Coordinator or 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

Implement speed awareness and enforcement strategies to reduce motor vehicle speeds in the school zone. Yard signs (Figure 9), 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. A school zone enforcement area could be implemented at Burnley-Moran 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

Figure 27: Zone In, Not Out Signage Example

Evaluation

Continue conducting Student Travel Tallies to get baseline data for student travel patterns. In Virginia, schools across the state record how students are getting to school during Student Travel Tally Week. Student Travel Tally Week normally takes place on a week of the school's choosing in September or October. However, due to the ongoing COVID-19 pandemic, Student Travel Tally week has been postponed until 2021. Student Travel Tally data can be used to assess progress toward increasing the number of students who walk and bike to school. Comprehensive Student Travel Tallies were conducted in October 2016 and 2019 for Burnley-Moran Elementary School. For more information about Student Tally Week, go to the Virginia SRTS Program website.
http://www.virginiadot.org/programs/srts_student_travel_tally_week.asp

To supplement Student Travel Tallies, continue collecting data on school travel when students register.

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 once a year can help determine whether Safe Routes to School efforts are changing parents' attitudes towards walking and bicycling to school. 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

Appendices

A. Walkabout Participants

Name	Organization
Elizabeth Korab	Principal, Burnley-Moran Elementary School
Kyle Savage	Parent
Paul Miller	Martha Jefferson Neighborhood Association; Parent
Amanda Poncy	Bicycle and Pedestrian Coordinator, City of Charlottesville
Brennan Duncan	City Traffic Engineer, City of Charlottesville
Charles Proctor	Culpeper Local District Planner, VDOT
Shane Sawyer	Multimodal Programs Manager, VDOT
Katherine Graham	VA SRTS Coordinator, VDOT
Kyle Rodland	Charlottesville SRTS Coordinator
Jim Elliott	VA SRTS Local Technical Assistance Coordinator, Toole Design
Katie Heuser	VA SRTS Local Technical Assistance Coordinator, Toole Design
Jeremy Chrzan	Senior Engineer, Toole Design

B. Road Information Table

Street Name	Posted Speed Limit (mph)	Road Width	No. of travel lanes in each direction	AADT[3]	Road Classification[4]
250 Bypass	35	75 ft	2	41,000	Other Principal Arterial
East High St	25	30 ft	1	20,000	Other Principal Arterial
Locust Ave	25	22 ft	1	8,000	Major Collector
Meade Ave	25	27-37 ft	1	11,000	Minor Arterial
St. Clair Ave	25	30-35 ft	1	Not Available	Minor Collector
Hazel St	25	35-42 ft	1	Not Available	Local
Watson Ave	25	20-25 ft	1	Not Available	Local
St. Charles Ave/ Long St	25	20-25 ft	1	Not Available	Minor Collector

[3] Average Annual Daily Traffic (AADT) counts from 2019 VDOT Daily Traffic Volume Estimates for the City of Charlottesville, http://www.virginiadot.org/info/resources/Traffic_2019/AADT_104_Charlottesville_2019.pdf

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

C. Glossary of Infrastructure (Engineering) Terms

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

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

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

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.

E. Concept for East High St and Meade Ave