PATRICK HENRY ELEMENTARY
WALKABOUT: Existing Conditions, Findings and Recommendations
June 2017
Date: April 5, 2017
Observation: Arrival
Participants:
  - Toole Design Group staff
  - City of Alexandria Transportation Planning staff
  - Alexandria Bicycle & Pedestrian Advisory Committee members
  - Patrick Henry Elementary neighbors
Purpose:
  - Observe school arrival process
  - Evaluate school-zone infrastructure
  - Assess existing Safe Routes to School programming
OVERVIEW OF PATRICK HENRY ELEMENTARY SCHOOL

STUDENT DISTANCE FROM SCHOOL
As reported in 2014 Parent Survey

- 52% within 1 mile
- 48% >1 mile

Total students: 604

STUDENT TRAVEL MODES
Average of “to school” and “from school” modes as reported in 2014 Parent Survey

- 55% Bus
- 28% Bicycle
- 16% Walk
- 1% Car
### STUDENT DISTANCE FROM SCHOOL DETAIL

<table>
<thead>
<tr>
<th>Distance</th>
<th>Percentage of Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>¼ mile</td>
<td>11%</td>
</tr>
<tr>
<td>½ mile</td>
<td>15%</td>
</tr>
<tr>
<td>1 mile</td>
<td>21%</td>
</tr>
<tr>
<td>2 miles</td>
<td>32%</td>
</tr>
<tr>
<td>&gt;2 miles</td>
<td>20%</td>
</tr>
</tbody>
</table>

As reported in 2014 Parent Survey

The hollow circle on the map represents a ¼ mile direct distance buffer from the school. The colored polygons show the distance along the road network.
EXISTING CONDITIONS
TRAVEL PATTERNS

Morning and Afternoon Travel Mode Comparison

- **Walk**: Morning - 16%, Afternoon - 15%
- **Bike**: Morning - 0%, Afternoon - 0%
- **School Bus**: Morning - 56%, Afternoon - 55%
- **Family Vehicle**: Morning - 27%, Afternoon - 28%
- **Carpool**: Morning - 0%, Afternoon - 1%
- **Transit**: Morning - 0%, Afternoon - 0%
- **Other**: Morning - 1%, Afternoon - 1%

Fall 2014 Student Travel Tallies
Issues reported to affect the decision to not allow a child to walk or bike to/from school by parents of children who do not walk or bike to/from school

**Top 3 issues:**
- Safety of intersections and crossings (60%)
- Speed of traffic along route (57%)
- Distance (57%)
Sidewalks – Most sidewalks are at least 4 feet wide and include a buffer from the roadway

Crosswalks – The three intersections closest to the school have marked crosswalks on all four legs

Curb ramps – Curb ramps are present at most intersections but not all meet ADA standards regarding slope and detectable warning surfaces
The rental agreements at some of the nearby apartment complexes prohibit students from owning bikes, which limits the number of students biking to school.
New Patrick Henry Construction Project

- With construction of a new school building and community center slated to begin in summer 2017, arrival observations focused on the three intersections closest to the school.

- The existing (left) and planned (right) arrival patterns are included below for comparison.
Latham Street and Taney Avenue

- This intersection is controlled by a 4-way stop.
- The effective curb radii at this intersection are wide due to the presence of on-street parking and bike lanes on Taney Avenue.
- Drivers were observed using the westbound bike lane on Taney Ave to make right turns onto Latham Street.
- There is a flashing school zone sign for eastbound traffic located to the east of this intersection, approximately 520-feet from the school’s front entrance. This sign was not flashing during arrival observation.
ARRIVAL OBSERVATIONS

Howard Street and Taney Avenue

- Traffic on Howard Street is stop controlled, but traffic on Taney Avenue does not stop at this intersection.
- Most of the students walking to school pass through this intersection.
- There are well-utilized middle school and WMATA bus stops located close to this intersection that generate substantial pedestrian activity during arrival.
- Many northbound drivers use Howard St as an alternative to Jordan St, turning left onto Taney Avenue at this intersection.
- There is a flashing school zone sign for westbound traffic located to the west of this intersection, approximated 340-feet from the school’s front entrance.

Middle school students boarding their bus in the intersection

Northbound traffic on Howard St
ARRIVAL OBSERVATIONS

Jordan Street and Taney Avenue

- This intersection has a traffic signal and a crossing guard posted during arrival and dismissal.
- The crossing guard stops turning traffic while students are in the crosswalk.
- Although there are “No Turn on Red while Crossing Guard is Present” signs posted on the nearside of the intersection in both directions on Taney Avenue, drivers were observed making right turns on red.
- Large curb radii at this intersection accommodate high speed turning movements and increase the crossing distance for pedestrians.
- Cars were parked very close to the corners of this intersection, blocking views of the pedestrians approaching the intersection.
ENGINEERING RECOMMENDATIONS
Recommendations

Restrict parking 20-ft. from corners to daylight intersections and increase sight lines

Stripe parking lanes on Taney Ave to visually narrow the street

Reconstruct curb ramps to meet ADA requirements

Rendering showing a striped parking lane and pavement markings restricting parking on Taney Avenue near the intersection with N Jordan Street.
## 1 – TANEY AVE AND LATHAM ST

<table>
<thead>
<tr>
<th>Map ID</th>
<th>Issue</th>
<th>Recommendation</th>
<th>Timeframe*</th>
</tr>
</thead>
</table>
| 1      | Large curb radii enable high speed turning movements and lengthen pedestrian crossing distance  
        | Drivers using westbound bike lane as right turn lane                  | Use flexposts to create curb extensions the width of the parking lane on Taney Ave | Medium     |

*Short = within 1 year, Medium = within 3 years, Long = 3 or more years*
# 2 – MIDBLOCK CROSSING

<table>
<thead>
<tr>
<th>Map ID</th>
<th>Issue</th>
<th>Recommendation</th>
<th>Timeframe*</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Poor visibility for pedestrians at midblock crossing on Taney Ave</td>
<td>Use flexposts to create curb extensions the width of the parking lane on Taney Ave Add high visibility crosswalk markings</td>
<td>Medium (during new construction)</td>
</tr>
</tbody>
</table>

* Short = within 1 year, Medium = within 3 years, Long = 3 or more years
<table>
<thead>
<tr>
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<th>Issue</th>
<th>Recommendation</th>
<th>Timeframe*</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Faded high visibility crosswalk markings</td>
<td>Repaint high visibility crosswalk markings</td>
<td>Short</td>
</tr>
<tr>
<td>3</td>
<td>Curb ramps do not meet ADA standards</td>
<td>Ensure all curb ramps at the intersection meet current ADA standards</td>
<td>Short</td>
</tr>
<tr>
<td>3</td>
<td>Curb ramp located just west of the intersection on the north side of Taney Ave is not aligned with the marked crosswalks at the intersection</td>
<td>Remove curb ramp</td>
<td>Medium</td>
</tr>
<tr>
<td>3</td>
<td>Traffic on Taney Ave does not stop; northbound drivers on Howard St block crosswalk as they wait to turn left onto Taney Ave</td>
<td>Continue to study intersection to see if an all-way stop is warranted **</td>
<td>Medium</td>
</tr>
<tr>
<td>3</td>
<td>Insufficient curb space for people walking and people waiting for the bus</td>
<td>Consider adding a bus shelter behind the sidewalk to provide a waiting area for WMATA and middle school bus riders and keep the sidewalk clear for pedestrians</td>
<td>Medium</td>
</tr>
</tbody>
</table>

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** Source: MUTCD section 2B.07
Above – The faded crosswalk markings on the north leg of the intersection should be repainted.

Left – Buses and pedestrians require more curb space at this intersection.
OTHER RECOMMENDATIONS
<table>
<thead>
<tr>
<th>Map ID</th>
<th>Issue</th>
<th>Recommendation</th>
<th>Timeframe*</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Confusing school zone signage</td>
<td>Remove yellow “SCHOOL” label from 25 mph speed limit signs</td>
<td>Short</td>
</tr>
<tr>
<td>5</td>
<td>No Turn on Red restrictions are ignored</td>
<td>Option A – Install standard No Turn on Red (R 10-11) signs to traffic signal poles on far side of intersection</td>
<td>Short</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Option B - Add a dynamic 'no turn on red' sign to traffic signal poles on far side of intersection that is illuminated during arrival and dismissal</td>
<td>Medium</td>
</tr>
<tr>
<td></td>
<td>Large curb radii accommodate high speed turning movements, lengthen the crossing distance for pedestrians and allow cars to park too close to the intersection</td>
<td>Reduce turning radii with curb extensions that have ADA compliant curb ramps</td>
<td>Medium</td>
</tr>
<tr>
<td></td>
<td>Northbound drivers on Jordan St swerve around cars queuing to turn left</td>
<td>Restrict parking near intersection to create space for left turn lane on northbound Jordan St</td>
<td>Medium</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Conduct signal timing analysis to determine whether protected left turn phase is needed</td>
<td>Medium</td>
</tr>
</tbody>
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Above – The location of the No Turn on Red sign is behind where drivers stop at the intersection.

Left – Wide curb radii enable high speed turning movements and lengthen pedestrian crossing distance. The bottom image shows how curbs can be reconstructed with tighter radii.
PROGRAMMATIC RECOMMENDATIONS
## EDUCATION

<table>
<thead>
<tr>
<th>Recommendation</th>
<th>Continue Existing</th>
<th>Start New</th>
</tr>
</thead>
<tbody>
<tr>
<td>Integrate pedestrian and bicycle safety education into the school curriculum.</td>
<td></td>
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<tr>
<td>Conduct a bicycle rodeo to teach the skills and precautions to ride a bike safely.</td>
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<tr>
<td>Incorporate information about walking and bicycling to school in communications with parents, especially during construction and prior to moving into the new school building.</td>
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<tr>
<td>Provide parents and guardians with safe driving information that stresses the importance of driving safely in school zones and being alert for pedestrians and bicyclists during arrival and dismissal.</td>
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## ENCOURAGEMENT

<table>
<thead>
<tr>
<th>Recommendation</th>
<th>Continue Existing</th>
<th>Start New</th>
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<tbody>
<tr>
<td>Participate in International Walk to School Day and Bike to School Day.</td>
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<td>○</td>
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<tr>
<td>Help organize and support walking schools buses.</td>
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<td>○</td>
</tr>
<tr>
<td>Help organize and support bike trains.</td>
<td></td>
<td>○</td>
</tr>
<tr>
<td>Establish a frequent walker / bicyclist program.</td>
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<td>○</td>
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ENFORCEMENT

Recommendation

- Establish a driver pledge program.
- Celebrate Virginia Crossing Guard Appreciation Day.
- Work with the police department to provide periodic parking, speed limit and ‘No Turn on Red’ enforcement near the school.
**Recommendation**

| Conduct Student Travel Tallies to get baseline data for student travel patterns. |
| 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. |

*Travel Tallies were last collected in the fall of 2010 and Parent Surveys were conducted in the fall of 2014 at Patrick Henry Elementary School. Up to date information is required to monitor program success and apply for federal SRTS funding.*