PEDESTRIAN SAFETY AND TRAFFIC CALMING

Terrell Hughes, PE
Director of Public Works
Demand at an all-time high
  ▶ Working from home
  ▶ Transit
  ▶ People need recreation
  ▶ Capital Trail usage up 60%
  ▶ Fall Line Trail – in development
  ▶ North Gayton Trail
    ▶ Best New Bike Road 2019

PEDESTRIAN AND BIKE INFRASTRUCTURE
Current
- Sidewalk - 263 Miles
- Trails - 39 miles
- Bike Lanes - 9 miles

Programmed
- Sidewalk - 23 miles
- Trails - 5 miles
- Fall Line – 7.5 miles

PEDESTRIAN AND BIKE INFRASTRUCTURE
SAFETY OVERVIEW

- 5-year history
- Fatal Crashes – 140
  - Pedestrians – 41
  - Bikes - 6
- Injury Crashes – 15,785
  - Pedestrians – 503
  - Bikes – 193
- Pedestrian and Bike Crash Trend
  - State - 12%
  - Henrico - 33%
Top Causes
1. Mid Block Crossing
2. Crossing at intersection (no signal)
3. Walking in roadway (no sidewalk available)
4. Crossing at intersection (signal)
5. Standing in roadway
6. On the side of the roadway
All Pedestrian Crashes
January 2015 - August 2020
All Bicycle Crashes
January 2015 - August 2020
Higher speed = less peripheral vision
Higher speed = greater impact force

VEHICLE SPEED
- Higher speed = longer reaction distance
- Higher speed = longer braking distance
### Pedestrian Crashes
- Daytime Crashes – 303
- Nighttime Crashes – 241

### Pedestrian Fatal Crashes
- Daytime Crashes – 10
- Nighttime Crashes – 31

### Henrico
- 76%

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**76% of Pedestrian Fatalities Occur in Dark Conditions**

Drivers need to be alert for pedestrians at night. Pedestrians should wear reflective materials or use a light at night to increase visibility.

Source: [https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/612360](https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/612360)

For more information: [https://www.nhtsa.gov/about-nhtsa/pedestrian-safety](https://www.nhtsa.gov/about-nhtsa/pedestrian-safety)

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**NIGHT CRASHES ARE WORSE**
BIKE CRASHES DAY VS. NIGHT

- Bike Crashes – 199
  - Daytime Crashes – 123
  - Nighttime Crashes - 76
- Bike Fatal Crashes – 6
  - Daytime Crashes – 2
  - Nighttime Crashes - 4
All Pedestrian and Bicycle Night Crashes
January 2015 - August 2020
Develop a strategic safety plan

- **Goal - Zero Deaths**
  - Henrico Team – DPW, Police, Fire, Health
  - Regional Effort - PlanRVA
- **Bike/Ped in Comprehensive Plan Update**
- **Changes to infrastructure to protect vulnerable road users**
- **Focus on nighttime crashes**
  - Nighttime accommodations
  - Public outreach

**SAFETY TAKEAWAYS**
Many requests

- **Two Phases**
  - Phase 1 – Speed Study / Enforcement
  - Phase 1 – “$200 Additional Fine”
  - Phase 2 – Speed Study / Enforcement
  - Phase 2 – Physical Devices

Each involves Board, DPW and Police

**TRAFFIC CALMING**
Traffic calming requests come in two forms

- Reduce speeding
- Reduce cut-thru traffic

- Communities want new solutions
- More pedestrians and bikes require new tools
Cut-thru traffic - slow them down and increase resistance to speed

- Reduce lane widths
- Structurally calm traffic with small infrastructure improvements
- We can test them
- Big-data sources can identify cut-thru traffic

TRAFFIC CALMING
TRAFFIC CALMING

- Expand traffic calming program
- Use pilot projects with “before and after” studies