



Harrison Avenue Pedestrian Road Safety Audit

Camden, NJ



Friday, June 4th, 2021
11:00 am
via Zoom virtual meeting



The Delaware Valley Regional Planning Commission is the federally designated Metropolitan Planning Organization for a diverse nine-county region in two states: Bucks, Chester, Delaware, Montgomery, and Philadelphia in Pennsylvania; and Burlington, Camden, Gloucester, and Mercer in New Jersey.



DVRPC's vision for the Greater Philadelphia Region is a prosperous, innovative, equitable, resilient, and sustainable region that increases mobility choices by investing in a safe and modern transportation system; that protects and preserves our natural resources while creating healthy communities; and that fosters greater opportunities for all.

DVRPC's mission is to achieve this vision by convening the widest array of partners to inform and facilitate data-driven decision-making. We are engaged across the region, and strive to be leaders and innovators, exploring new ideas and creating best practices.



Agenda

1. Introductions/Schedule
2. Project Background
3. Existing Conditions
4. Audit Procedures
 - a. Tools
 - b. Date
 - c. Materials
5. Questions/Next Steps

Aerial of Cramer Hill Waterfront Park site and surrounding area.
Source: Nearmap 2020

Audit Team Introductions

- Bicycle Coalition of Greater Philadelphia
- Camden County
- Camden County Municipal Utilities Authority
- Camden County Police Department
- City of Camden Department of Planning and Development
- Camden Housing Authority
- Cramer Hill Residents Association
- Cross County Connection TMA
- Cooper's Ferry Partnership
- DVRPC PPTF
- NJDEP
- NJ Transit
- Salvation Army/Kroc Center
- The Michaels Organization/Urban Practice
- Tri-State Transportation Campaign



PRSA Schedule

1. **Meeting #1 - Pre-audit: Friday, June 4, 11AM**
 - project purpose
 - existing condition/data review
 - audit tools and event preview

2. **Meeting #2 - Field Audit: Wednesday June 16, 10AM-12noon**
 - in-person visit to study area as a group
 - individual/independent field visit

3. **Meeting #3 - Post-audit: TBD**
 - itemize & summarize field findings
 - discuss improvement scenarios
 - next steps

Harrison Ave Road Safety Audit

Project Background

Supporting & Concurrent Efforts

- **Cramer Hill NOW! Plan - 2009**
 - Set forth a vision for the neighborhood's waterfront
- **Ray and Joan Kroc Corps Community Center - 2014**
- **NJDEP - 2016**
 - Announced close/cap landfill, design & develop a 62-acre park
- **Camden County Bicycling and Multi-Use Trails Plan - 2015**
- **ULI 10 Minute Walk Study (Cramer Hill Waterfront Park) - 2019**
 - Invited by Cooper's Ferry Partnership
- **HUD Transformation Plan for Ablett Village/Cramer Hill**
 - Urban Practice leading implementation plan which includes a complete and green street for E. State St.
- **CCMUA RFP**
 - Will involve infrastructure improvements to Harrison Ave.
- **City of Camden Active Transportation Network Vision Plan - NV5**

Harrison Ave. and E. State Street

ULI - 10 Minute Walk Recommendations & Observations

**Cramer Hill Waterfront Park
will present an unparalleled
opportunity for Camden residents
to connect with the Delaware and Cooper River
waterfronts when it comes online in 2021."**

SARAH BRYANT, DIRECTOR OF COMMUNITY INITIATIVES, COOPER'S FERRY PARTNERSHIP

Harrison Ave. PRSA - DVRPC Work Program Project - FY '22

“Camden County and Camden City requested a planning project to consider the access recommendation of the 10 Minute Walk study”

“Kroc Center and Cramer Hill Waterfront Park are located in a place where access by pedestrians and bicyclists is not ideal”

“The Fall '21 opening of the waterfront park will result in foot, bike and auto traffic increases”

- Vehicular speeding common on both Harrison and E State
- Not comfortable for bicyclists or pedestrians

Questions

Any reactions or questions to the project background?

Harrison Ave Road Safety Audit

Existing Conditions

Land Use

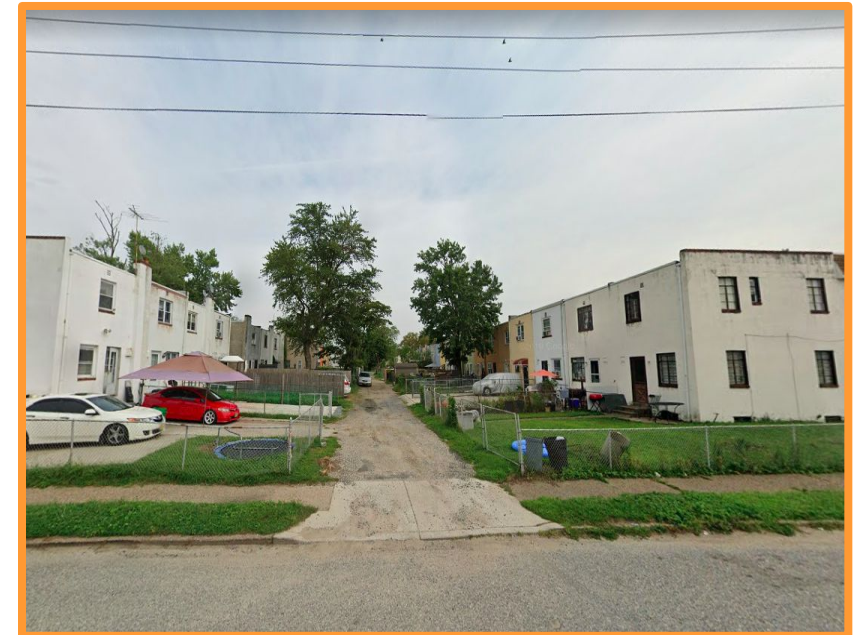
Kroc Center



Ablett Village



Housing units across from Kroc Center



Cramer Hill Waterfront Park



Operational Characteristics

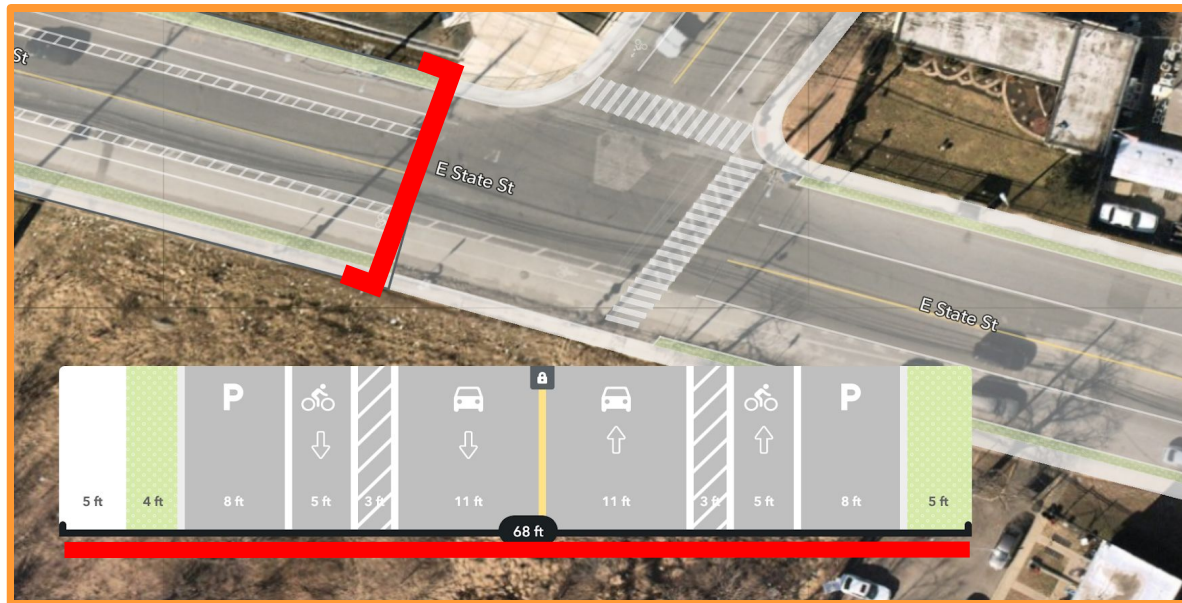
Roadway

- 0.60 miles (Harrison Ave)
- 0.35 miles (E State Street)
- Two-way streets
- Speed limit: 25 mph throughout
- Bike lanes throughout
- 10 Intersections:
 - 0 signalized
 - 3-ways (9)
 - 4-ways (1)
- 419 & 452 Bus Lines
- Pedestrian crosswalks

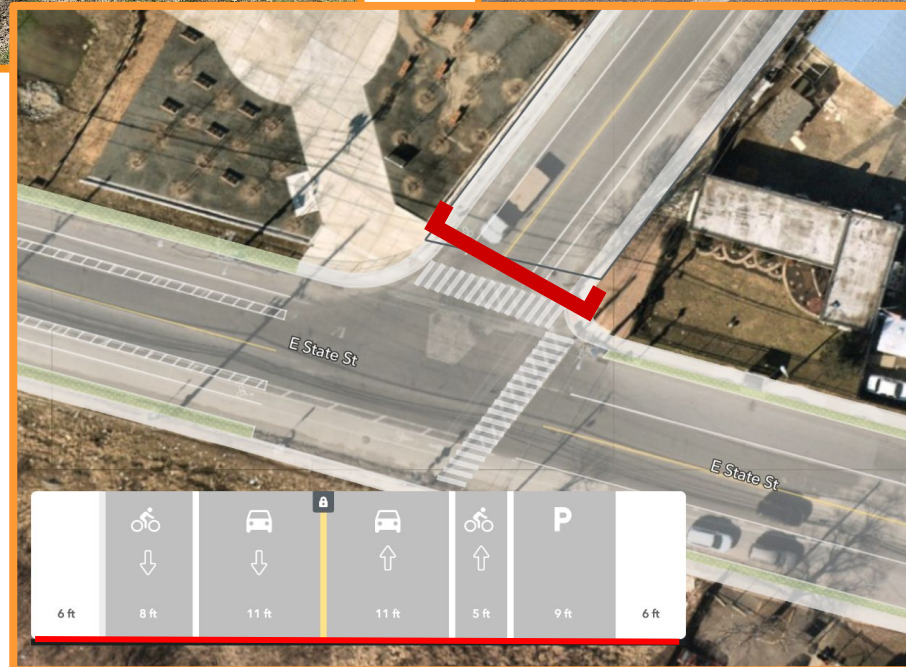


Cross Section Geometry – E. State Street

E State Street
Westbound
includes 5ft
buffered bike
lanes



Cross Section Geometry – Harrison Ave.



					P	
	↓	↓	↑	↑		
6 ft	8 ft	11 ft	11 ft	5 ft	9 ft	6 ft

Traffic Volumes

AADTs

- Harrison Ave (NB): aprx 4,705 vehicles/day
- E State St & Centennial Drive (WB): aprx 4,880 vehicles/day
- E State St (EB): aprx 5,640 vehicles/day

Pedestrian Volumes (ADP)

- Harrison Ave & 22nd Street – aprx 264 people/direction

Bicyclist Volumes (ADB)

- Harrison Ave & 22nd Street (SB) – aprx 11/day
- E State St Bridge (WB) – aprx 31/day
- E State St Bridge (EB) -- aprx 61/day



Source: DVRPC Traffic Counts

Crash Data

Reportable crashes

- Reportable criteria: personal injury, or minimum of \$500 damage if property damage only
- 2015-2019 crash data from NJDOT

Data Issues

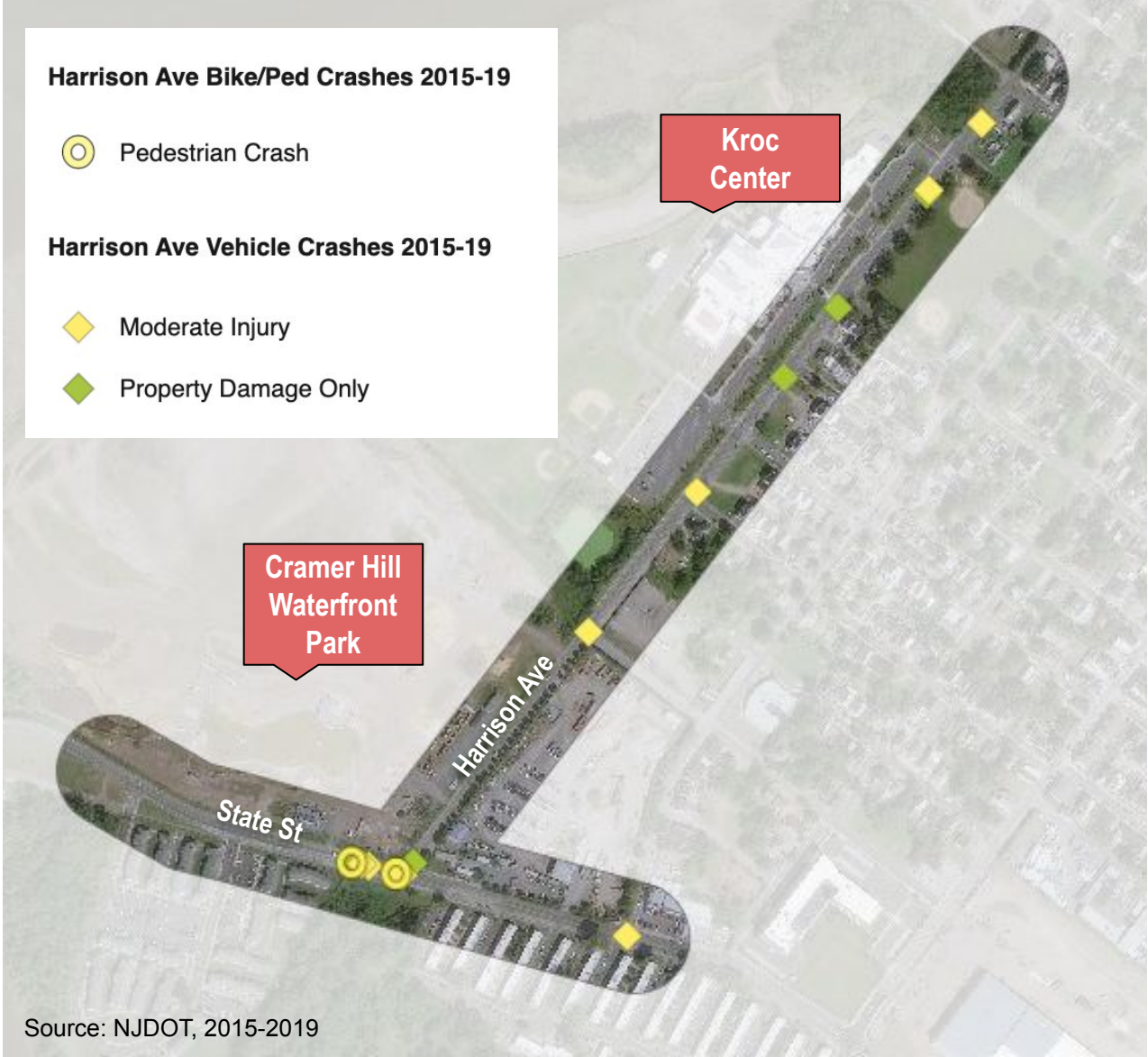
- Location issues: many crashes lack accurate latitude/longitude data, SRI/milepost used instead but not as accurate

Corridor-wide Crash Findings

YEAR

	Harrison Ave	State St	State St @ Harrison Ave	Total
2015			2	2
2016	1			1
2017		1		1
2018	4	1	1	6
2019	5	1	4	10

Corridor-wide Crash Findings



Corridor-wide Crash Findings

CRASH SEVERITY



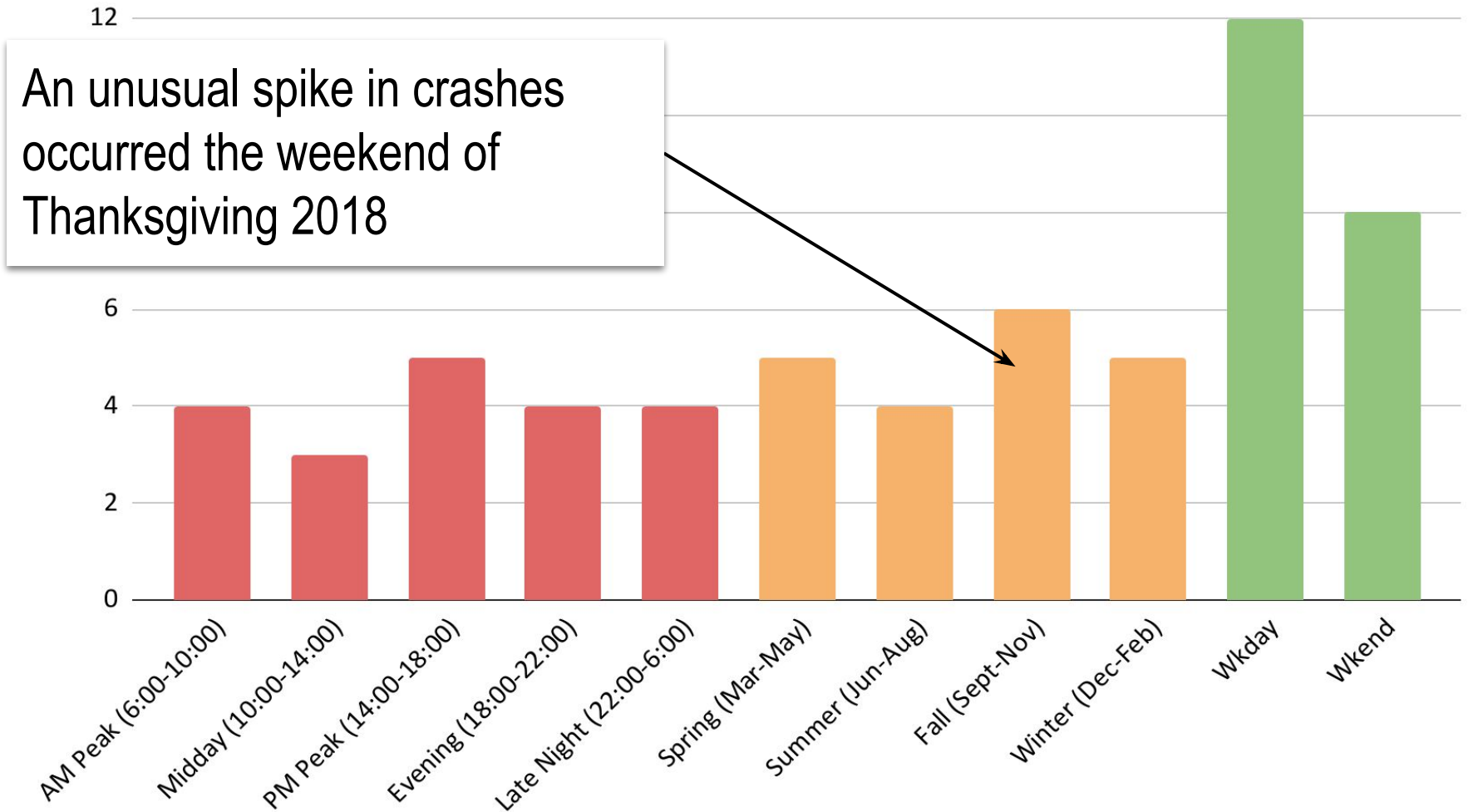
Corridor-wide Crash Findings

COLLISION TYPE

	Harrison Ave	State St	State St @ Harrison Ave	Total
Hit Fixed Object	5	1		6
Right Angle	2	1	2	5
Rear End	1		2	3
Sideswipe (Same Direction)	1		1	2
Hit Pedestrian		1	1	2
Left Turn			1	1
Hit Parked Vehicle	1			1

Corridor-wide Crash Findings

TIME / SEASON / DAY



Corridor-wide Summary

Where:

- Midblock = 7
- At intersections = 13

Mode:

- Pedestrian crashes = 2 (1 fatal)
- Bicyclists crashes = 0
- Vehicle/vehicle = 18

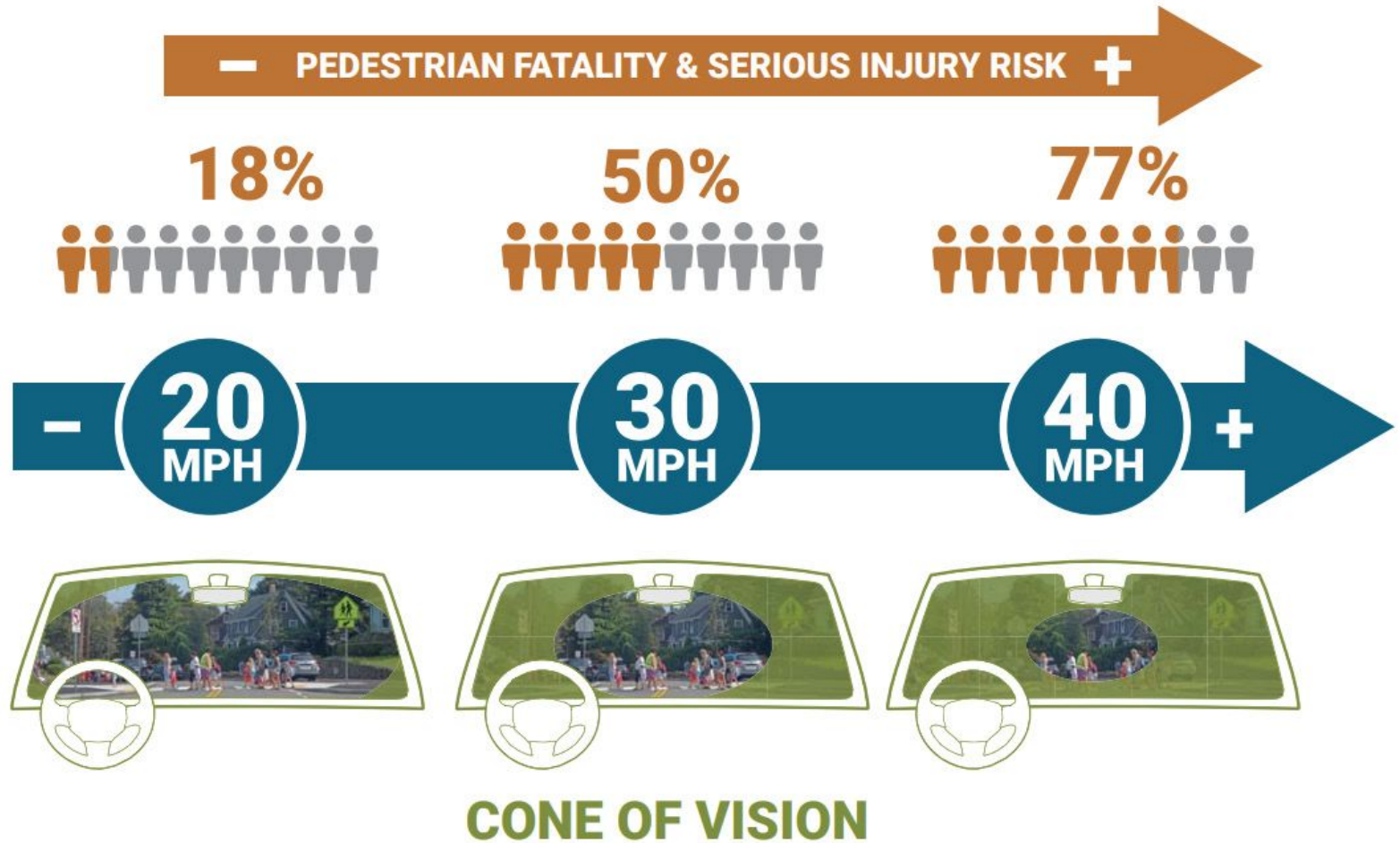
Predominant collision types:

- Hit fixed object, angle

People involved:

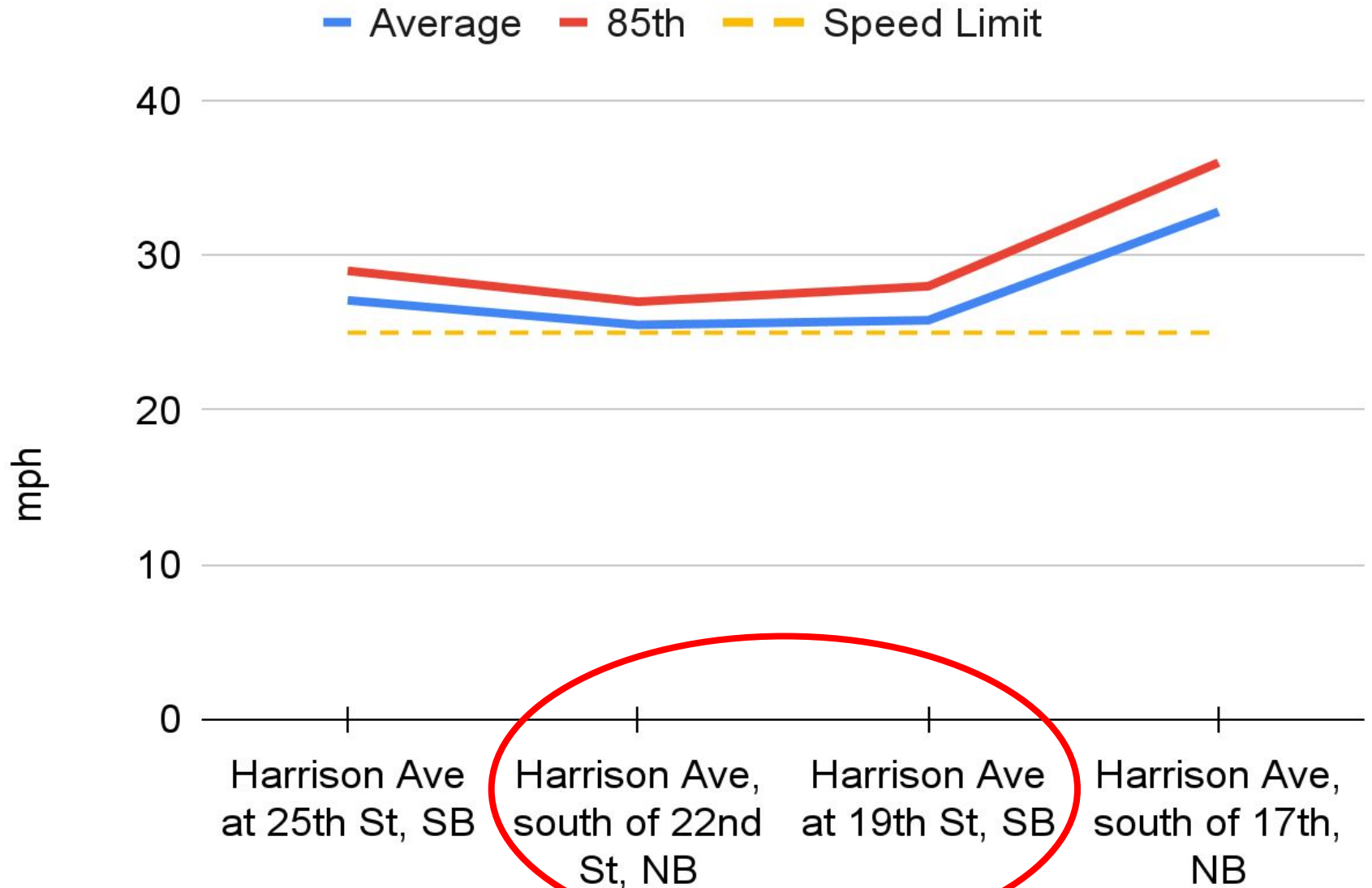
- 1 person killed, 17 injured, 47 people involved

Speed = Crash Risk

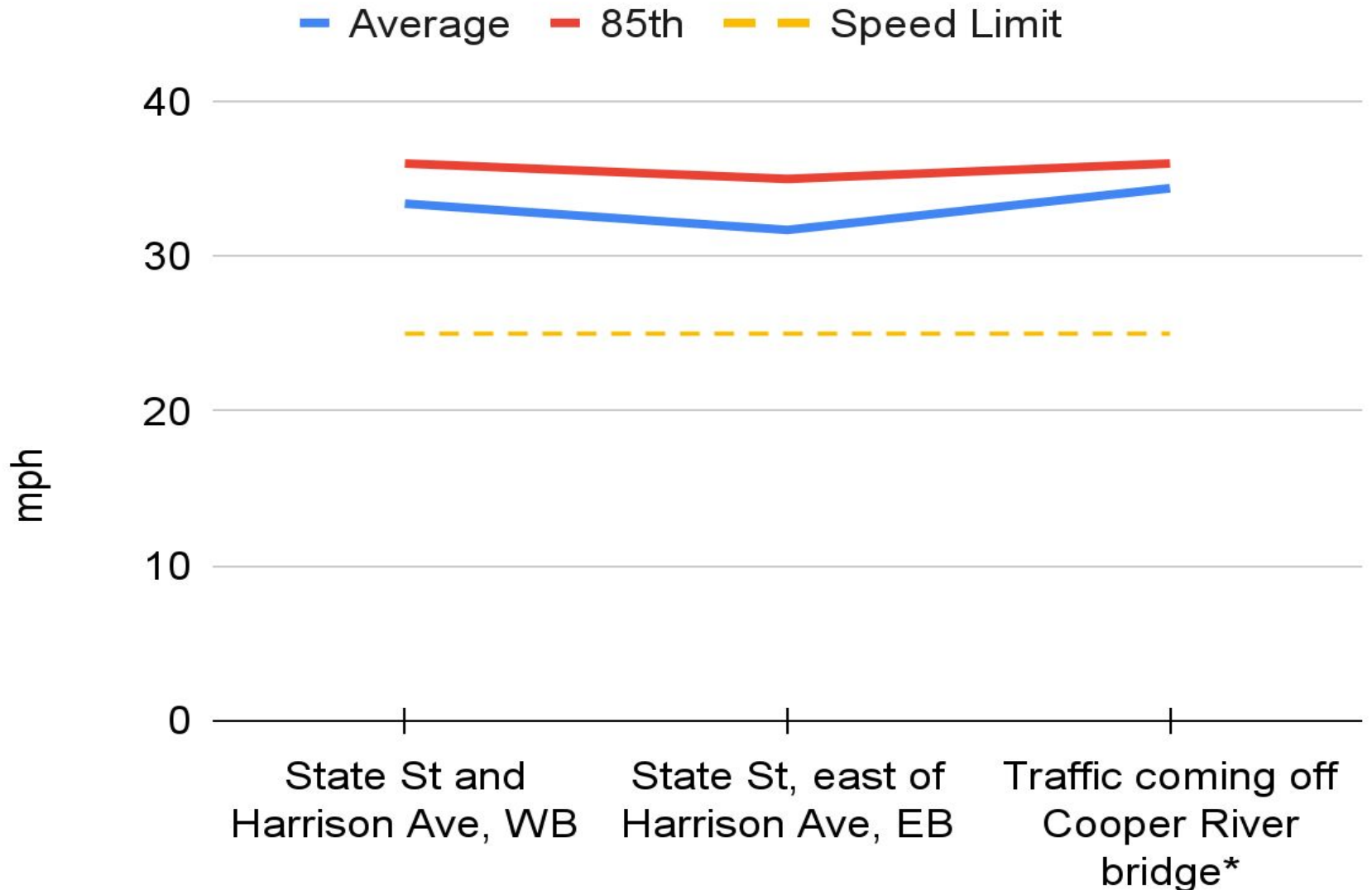


Source: 2016 FHWA.

Speed Data - Harrison Ave



Speed Data



*a law enforcement vehicle was present with lights on, potentially lowering speeds

Questions

Any reactions or questions to the study area data?

Harrison Ave Road Safety Audit

Audit Procedures

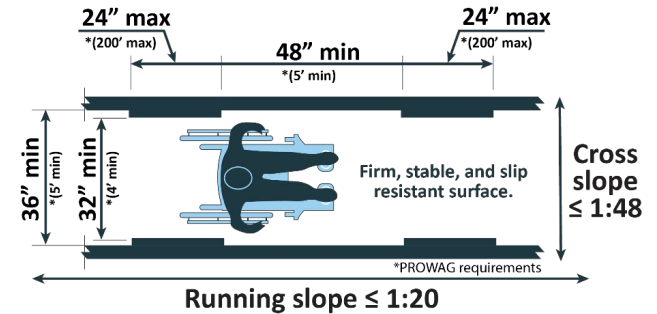
Basic Steps of Field Data Collection

1. Gather field observation materials
2. Meet at study area (or visit on your own)
3. Conduct tour of study area and note field observations
4. Input observations to the RSA Data Collection Tool

Principles of Pedestrian Safety

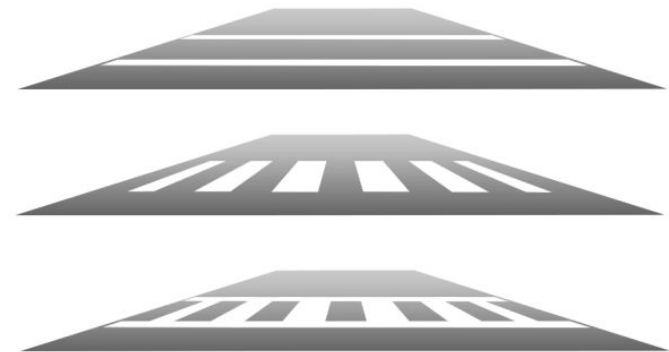
- **Connectivity**
 - “desire lines” and gaps
- **Accessibility**
 - sidewalk width, slope, materials
 - curb ramps and other accessibility features
- **Intersection Safety**
 - crossing distance
 - visibility
- **Safety & Comfort**
 - separation
 - lighting
 - vehicle speeds & volume
 - landscaping features
 - pavement condition
 - etc...

ADA Standards – Accessible routes



Source: 2010 Department of Justice.

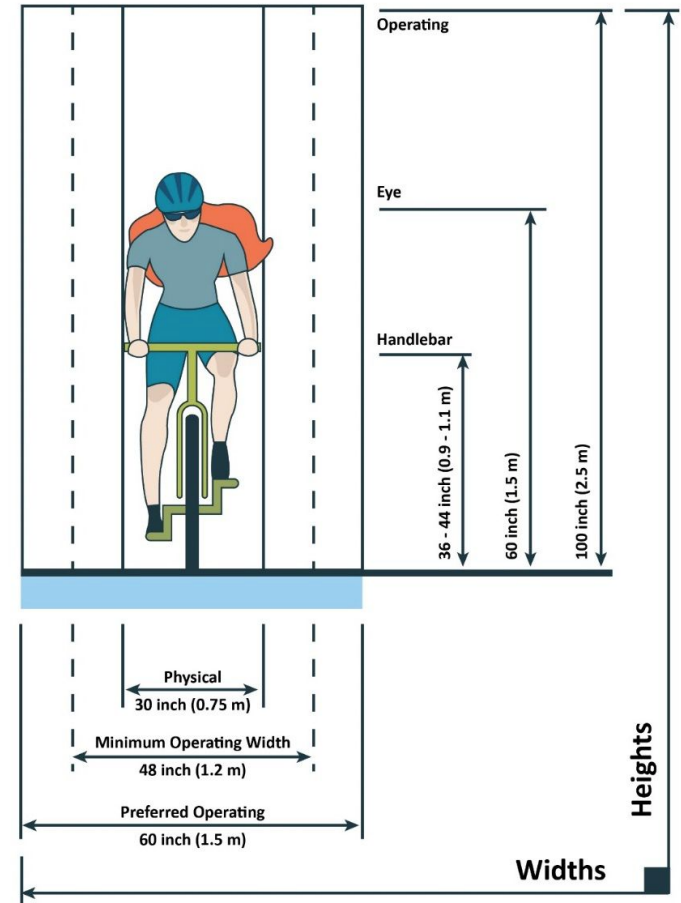
Standard vs. Continental Crosswalk Styles



Source: VHB

Principles of Bicyclist Safety

- **Space**
 - operating width/height
- **Stability**
 - uneven surfaces
 - deteriorating pavement
 - raised obstructions (e.g. utility covers)
 - openings perpendicular to the direction of travel
 - maintaining minimum speed
- **Connectivity**
 - “desire lines” and gaps
- **Safety & Comfort**
 - separation, lighting, vehicle speeds & volumes
- **Intersection Safety**
 - interaction with drivers, peds, & transit



Source: 2012 FHWA.

Key Prompts

Three primary categories of prompts:

1. Physical Environment / Infrastructure
 - a. Are necessary infrastructure elements **present**?
 - b. What is the **condition** of the infrastructure?
 - c. Are infrastructure elements well-**connected** for all road users?
 - d. Are there obstructions or other **visibility** concerns?
 - e. Is the area well-**lit** at night?
 - f. How are connections to **transit** handled?

Key Prompts

Three primary categories of prompts:

2. Traffic Control Devices

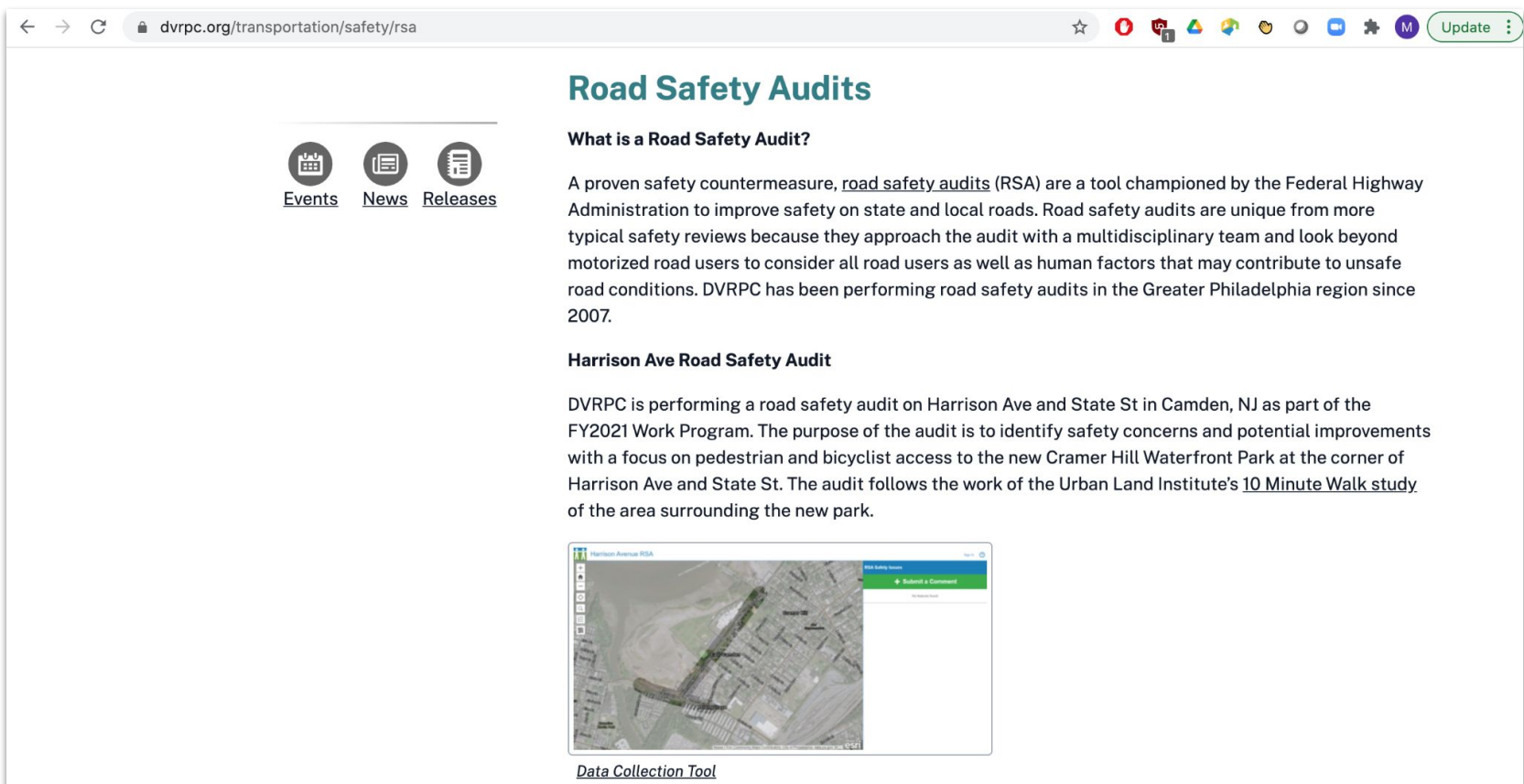
- a. Are **signs and pavement markings** adequate and effective?
- b. Do **signals** effectively serve all road users?
- c. Are road users **compliant** with signs, markings, and other traffic control devices?

3. Operations / Interactions / Behaviors

- a. Is the travel **speed** of road users appropriate for conditions?
- b. Are road users **behaving** in a safe, compliant manner?
- c. Do different modes **interact** with each other in a safe manner?

Tools to Complete PRSA

dvrpc.org/transportation/safety/rsa



The screenshot shows a web browser window with the address bar displaying dvrpc.org/transportation/safety/rsa. The page content includes a navigation menu with icons for Events, News, and Releases. The main heading is "Road Safety Audits". Below this is a section titled "What is a Road Safety Audit?" which explains that a proven safety countermeasure, road safety audits (RSA) are a tool championed by the Federal Highway Administration to improve safety on state and local roads. The text states that road safety audits are unique from more typical safety reviews because they approach the audit with a multidisciplinary team and look beyond motorized road users to consider all road users as well as human factors that may contribute to unsafe road conditions. DVRPC has been performing road safety audits in the Greater Philadelphia region since 2007.

Below the introductory text is a section titled "Harrison Ave Road Safety Audit". The text describes that DVRPC is performing a road safety audit on Harrison Ave and State St in Camden, NJ as part of the FY2021 Work Program. The purpose of the audit is to identify safety concerns and potential improvements with a focus on pedestrian and bicyclist access to the new Cramer Hill Waterfront Park at the corner of Harrison Ave and State St. The audit follows the work of the Urban Land Institute's 10 Minute Walk study of the area surrounding the new park.

At the bottom of the page, there is a screenshot of a "Data Collection Tool" interface. The tool shows a map of the Harrison Avenue area with a highlighted route. The interface includes a title bar "Harrison Avenue RSA", a "Data Entry" button, and a "Submit & Download" button.

[Data Collection Tool](#)

Data Collection Tool

The screenshot displays a web-based data collection tool interface. At the top left, there is a yellow diamond-shaped icon with the text "SAFETY FIRST" and the title "Harrison Avenue RSA". In the top right corner, there is a "Sign In" link. The main area is a satellite map showing a residential area with streets labeled: Harrison Ave, East Camden, Ablett Village, E State St, Centennial Dr, Pierce Ave, N 17th St, N 18th St, N 16th St, Wayne Ave, and N 20th St. On the left side, there is a vertical toolbar with icons for zooming in (+), zooming out (-), home, location, search, and other map functions. On the right side, there is a sidebar with a blue header "RSA Safety Issues" and a green button labeled "+ Submit a Comment" which is circled in red. Below the button, the text "No features found" is visible.

Data Collection Tool

Harrison Avenue RSA Sign In ?

RSA Safety Issues

Location
Click the map to draw the location.
Enter an address to search

Details

Issue Type
Select...

Details

Issue Type

- ✓ Select...
- Other
- Physical Environment/Infrastructure
- Traffic Control Devices
- Operations/Interactions/Behaviors

Maxar | Esri Community Maps Contributors, City of Philadelphia, data.p... **esri**

Data Explorer Webmap



Field Visit

What: Walking audit of the study area

When: Wed, June 16, 2021

Time: 10am-12noon

Where: Meet at Kroc Center parking lot

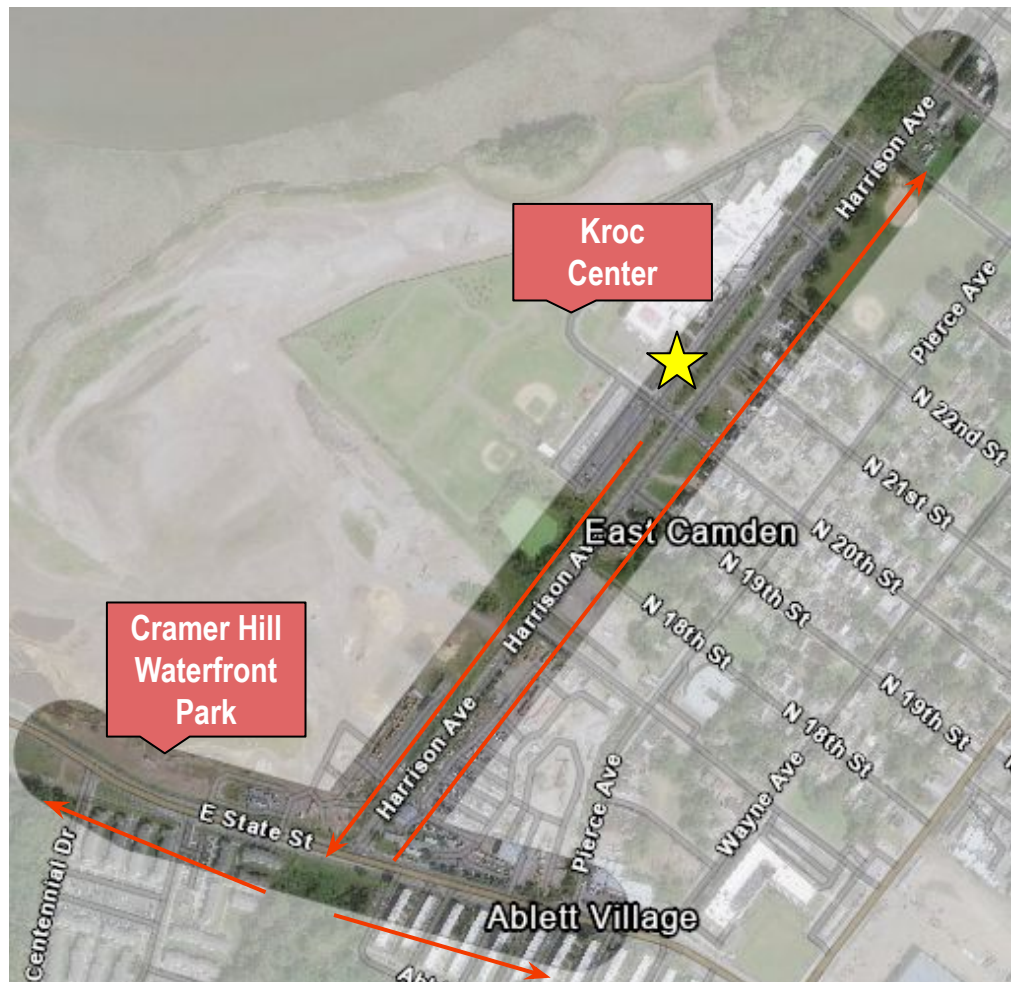
- Safety Vests:
 - Bring your own if you own one
 - We will provide safety vests to those that need one
- BYO Materials (optional, but recommended)
 - Water/Sunscreen
 - Notepad / Clipboard
 - Data Collection Tool is available

Field Visit Itinerary

10am: Meet at Kroc Center parking lot, south end

Audit Route:

- Walk SB on Harrison Ave to intersection
- Split into 2 groups to audit State St (E & W)
- Return to Harrison Ave, audit NB direction
- End at 25th St



QUESTIONS?

<https://dvrpc.org/transportation/safety/rsa>