Vision Zero:
Choose your Own Adventure

APAPA CONFERENCE
OCTOBER 22, 2019
WHAT IS VISION ZERO?
What is Vision Zero?

A policy that states clearly that traffic deaths are preventable and unacceptable.

CORE PRINCIPLES:

Human life takes priority over mobility;

Human error is inevitable and unpredictable;

People are inherently vulnerable and speed is a fundamental predictor of crash survival;

Safe human behaviors, education, and enforcement are essential contributors to a safe system.
WHEN A PERSON IS HIT BY A DRIVER AT...

20 MPH

1 OUT OF 10 DIE

30 MPH

5 OUT OF 10 DIE

40 MPH

9 OUT OF 10 DIE

Slowing down saves lives.
Why Vision Zero in Philadelphia?

Every year, there are nearly 10,000 reported crashes on Philadelphia streets.

5-YEAR TREND:

2014: 82 killed / 223 severely injured
2015: 83 killed / 250 severely injured
2016: 96 killed / 252 severely injured
2017: 78 killed / 244 severely injured
2018: 91 killed / 249 severely injured

100 people are killed in traffic related crashes.
Vision Zero trendline

Current & Desired Trendline for Vision Zero in Philadelphia

Source: PennDOT, 2013 – 2018
Traffic deaths by mode

People Involved in Crashes 2014 - 2018
- People Walking: 7%
- People Biking: 1%
- People in Motor Vehicles: 92%

People Killed in Crashes 2014 - 2018
- People Walking: 4%
- People Biking: 42%
- People in Motor Vehicles: 54%

Source: PennDOT 2014 - 2018
High Injury Network

50% of killed and serious injury crashes occur on only 12% of city streets
OUR CITY AND OUR FAMILIES DESERVE SAFER STREETS.

Zero traffic deaths by 2030.
HOW FAR WE’VE COME IN OUR FIRST YEAR
Evaluation and Data

**TraCS** – PPD is transitioning from paper crash reports and citations to electronic crash reports and citations.

**Vision Zero Research Partnership**

**Neighborhood Pedestrian & Bicycle Counters** – Six permanent counters are being placed outside Center City, all of which are in pedestrian-oriented commercial corridors and within two blocks of two or more segments on the High Injury Network.

**Vision Zero project tool** – To explore the map, visit www.VisionZeroPHL.com.
Engineering

Market/JFK Vision Zero Pilot Project

South Broad Street Intersection Safety Modifications

American St construction underway

Lincoln Drive construction underway

Resurfacing & integrated safety upgrades – Each resurfacing project is an opportunity to improve the design of a street.
“We Meet in the Street” public educational campaign – In July 2018, the City launched its first Vision Zero public education campaign “We Meet in the Street,” which aims to educate the public about dangerous driving behaviors that can lead to serious crashes and traffic deaths.

Fleet management

**Upgraded truck safety:** Including 360-degree cameras, cross-view mirrors, and sideguard panels.

*What are sideguard panels?*
Side guard panels are installed between the wheels of large vehicles that prevent anyone walking or biking from being swept under the tires of a truck after a side impact. Side guard panels are proven, simple, and effective pedestrian and bicycle safety tool.
2019
PROJECTS
AND
PROGRAMS
By the January 18, 2019 deadline, the City received (28) complete Slow Zone applications that were scored.

**SCORING**

Crash history

Vulnerable users
- Percent of households below 18
- Percent of households over 60
- Percent of households living below the poverty line

Community places
A new Vision Zero program that brings 20MPH speed limits and traffic calming to a clearly marked zone of residential streets.

**NEIGHBORHOOD SLOW ZONE PROGRAM WILL:**

- Work with neighbors to develop a plan for traffic calming that responds to critical traffic safety issues
- Lower speed limits to 20MPH
- Install gateway treatments
- Be self-enforced by traffic calming (speed cushions and more)
Our vision for bicycling

Every Philadelphian should have access to a safe and comfortable bikeway within a quarter a mile of their home, whether they’re 8 or 80 years old.
Protected Bike Lanes
Protected bike lanes are physically separated from traffic using measures such as flexible posts, concrete barriers, or lanes of parked vehicles.

Neighborhood Bikeways
Neighborhood Bikeways are projects focused on making residential streets calmer and more inviting to walk, bike, and spend time on.
Pine and Spruce

Paving and safety project in progress

1. Green markings through intersections. Drivers should yield to people biking & walking.
2. Flexible posts at most intersections to protect people biking from turning vehicles.
N Broad hardened centerlines

The City and PennDOT partnered to pilot hardened centerlines on a segment of High Injury Network corridor, N. Broad from Allegheny to Venango

**Hardened centerlines:**
- Prevents illegal U-turns
- Slows turning speeds
- Improves driver visibility

![Image of N Broad hardened centerlines]
What else is on deck?

→ Zero traffic-related deaths in Philadelphia by 2030.

More in 2019:

- Automated Speed Enforcement on Roosevelt Boulevard
- Vision Zero Pedestrian Safety Study and Action Plan
- Accelerated designs for:
  - Parkside Avenue,
  - North Broad St medians,
  - Summer/Adams/Roosevelt Boulevard
- Vision Zero for Youth Partnership
Sarah Clark Stuart
American Planning Association, Pennsylvania
October 22, 2019
Through advocacy and education, we lead the movement to make bicycling a safe and fun way to get around for anyone in Greater Philadelphia.
The Bicycle Coalition of Greater Philadelphia and AARP PA began talking about these listening sessions across Philadelphia neighborhoods in 2018.

- Rate of traffic-related deaths (per 100,000 residents)
  - Philadelphia: 6.0
  - New York City: 2.87
  - Los Angeles County: 5.74
  - Suffolk County (Boston): 1.93

Traffic crashes have tragic impacts on the lives of Philadelphians.

Data Source: NHTSA, 2015
CHANGE THE CONVERSATION

By Listening
Vision Zero is data-driven. High Injury Network identifies corridors with highest rates of fatalities and severe injuries per mile. It addresses 50% of all traffic deaths and severe injuries on just 12% of Philadelphia streets [2012-2016].

Data source: PennDOT 2012-2016; excluding Interstates

This High Injury Network will support the 2017 Vision Zero Three-Year Action Plan.
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Our goals?

• Address traffic concerns
• Find out the worst problems
• Hear THEIR solutions
• What has the government done for them?
• Have these concerns been voiced before?
Why is this important?

Poverty and High-Poverty Areas in Philadelphia

Source: Pew Charitable Trusts
Why is this important?

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Why is this important?

• BCGP Analysis: roughly 35% of Philadelphia’s street miles are located in these Census Tracts, 46% of the High Injury Network.

• Almost half (46%) of the High-Injury Network in Philadelphia lies in impoverished communities of color.
WHAT WE DID

1. Hired a Professional Facilitator
2. Partnered with local community organizations
WHAT WE DID

3. Provided FOOD
¿Es la seguridad vial un problema en Lehigh Ave?

Conversación sobre Tráfico y Seguridad

¡Haz que tu voz se escuche!

¿Como harías Lehigh Avenue una calle más segura?

AARP ofrecerá cena
Lunes, 25 de Febrero 5:30-6:45 pm
En la Biblioteca Lillian Marrero
601 W Lehigh Ave, Philadelphia, PA 19133

4. Provided a translation
WHAT WE DID

5. Listened
WHAT WE DID

6. Wrote up the Results
7. Present Report to City Council Members who represent these districts. And invite constituents!
By Changing the Speaker
1. Advocated for Red Light Cameras
2. Organized & Advocated for Automated Enforcement on Roosevelt Boulevard
What We Did

3. Organized Chapter of Families for Safe Streets
4. Recommended Solutions
Results: Real Time Data on Fatal Crashes & Investigative Outcomes

Fatal Crashes

This data set shows all fatal crashes and their investigative outcomes from PPD’s Accident Investigation Unit (AID) from 1/1/19 to the present. The whole dataset gets refreshed nightly. This means the dataset will show new records the day after the source data has updated.

For those conducting analysis, this dataset by PPD and OTIS’ crash data should not be compared, or should be used together cautiously. The same crash may show as in different locations between the two datasets since PPD data represent the location of where crashes are initially reported whereas OTIS’ crash data involves further investigation to confirm initial reports. If you want to analyze the location of crashes in Philadelphia, use OTIS’ dataset. If you want to understand the investigative outcomes of crashes, use the PPD dataset.

Trouble downloading or have questions about this City dataset? Visit the OpenDataPhilly Discussion Group

Data and Resources

- Fatal Crashes (CSV)
- Fatal Crashes (GeoJSON)
- Fatal Crashes (API)
Crash Data Retrieval System

The Accident Investigation Division (AID) is responsible for investigating critical injury and fatal crashes. According to PennDOT, between 2013 and 2017 there were an average of 14,213 reportable vehicle crashes per year in Philadelphia, and AID investigated an average of 2,318 crashes in those four years, including an average of 96 fatal crashes per year.

The CDR is a combination of computer hardware and software that enables accident investigators to retrieve, download, and print information recorded in a vehicle’s airbag and power train control module for activity which transpired during a crash. This key data is
Results: More Responsive District Attorney
What We Are Doing

WORLD DAY OF REMEMBRANCE PHILADELPHIA
FOR ROAD TRAFFIC VICTIMS
November 17th, 2019
THE NORTH APRON OF CITY HALL
2:00PM - 4:00PM
bicyclecoalition.org

Sarah Clark Stuart
sarah@bicyclecoalition.org
CRASH HISTORY

139 people were killed or seriously injured on Roosevelt Boulevard between 2013 and 2017.

2,695 crashes were reported on Roosevelt Boulevard between 2013 and 2017.

83% of all crashes on Roosevelt Boulevard were driver-to-driver crashes.

Pedestrian deaths and serious injuries make up 30% of all severe crashes along Roosevelt Boulevard.

25% of all traffic crashes on Roosevelt Boulevard leading to death or serious injuries resulted from vehicle hitting a fixed object.
ROOSEVELT BOULEVARD

20 DIFFERENT NEIGHBORHOODS in the Corridor

276,953 PEOPLE in the Corridor

264,000 JOBS in the Corridor (2010)
Developing a series of transformative improvements to create a more inviting corridor that is safe, accessible, and reliable for residents, visitors, employees, and commuters, including those who walk, wheel, transit, bicycle, and drive.

SAFE / Behavior, the interaction of modes, and unusual design characteristics of the Boulevard combine to put the traveling public at greater risk of harm.

ACCESSIBLE / The Boulevard separates local communities because it is difficult for every type of user to cross 12 lanes of traffic to access services, schools, employment, and attractions.

RELIABLE / People who walk, wheel, transit, bicycle, and drive experience unexpected delays, aging sidewalks, narrow medians, and limited bicycle facilities, making travel along the Boulevard unpredictable and frustrating.

TRANSFORMATIVE / As the defining piece of transportation infrastructure in NE Philadelphia, the Boulevard is not comfortable for every type of user and falls short of its potential to bolster the social and economic vibrancy of neighboring communities.
Serving Roosevelt Boulevard, between Frankford Transportation Center and the Neshaminy Mall, this BRT-type service offers an efficient and reliable travel option, with greater service frequency and fewer stops.
Direct Bus Phase B (Concept)

Potential Station Locations

Service Frequency

Example Stop Conditions Before & After

Stop Elements

Potential Frequency: Weekday Service

Potential Site Plan

SEPTA wants your feedback! Comments:

Potential Frequency: Weekday Service

High frequency service expected on weekends

Other Features

Pedestrian-scale Lighting
Wayfinding
Low-Maintenance Landscaping

SEPTA
INTERIM IMPROVEMENTS

Priority on Human Life (Safety)

Improve conditions on the Boulevard for all users

Developed using network traffic modeling

1. Improvements at key intersections
2. Expanded Direct Bus service
3. Bike Network connected to Blvd resources
Character Typology 1
Predominantly fronted by well-established residential neighborhoods.
Based on the Parkway design model, the hierarchy of the existing green spaces are in the wrong places.
The widest of the green spaces should be at the outer medians, which would be compatible with residential frontage and outer lanes that have slower local traffic.
Creating a place of respite in the center median is not recommended.

Character Typology 2
Much more variable in both its physical makeup and development that fronts the roadway, which is predominantly commercial and retail use.
Green space is primarily divided between two medians.
Median width consistency is impacted by increased turning movement lanes.
In many locations, medians narrow to only about 5-feet, which is at best an uncomfortable pedestrian refuge and at worst hazardous.
Boulevard Character Analysis

Character Typology 1

Landscape recommendations should seek to support the intent to slow vehicular speeds.

Character Typology 2
GUIDING VISION FOR ROOSEVELT BOULEVARD

Roosevelt Boulevard is safe, accessible and reliable for all users. It is an attractive and vibrant corridor that unites adjacent communities and offers a diverse and connected network of transportation choices.
FINE GRAIN STREET NETWORKS
STATION AS A ‘PLACE’

❖ Comfortable, Safe and Attractive
❖ Protected from Weather
❖ Well Lit
❖ Linked to Walking and Biking Network
WALKABLE STATION AREA TYPES

- Mixed Use Transit Center
- Medium Density Center
- Neighborhood
TWO ALTERNATIVES

PARTIALLY CAPPED EXPRESSWAY

NEIGHBORHOOD BOULEVARD
Vision Zero:
Choose your Own Adventure

KELLEY - Starting up a Vision Zero program
SARAH - Engaging communities in Vision Zero discussions
ANGIE - Planning Vision Zero safety improvements