

# **VISION ZERO**

**Progress Report: Cambridge**

**YEAR ONE**

**Massachusetts Vision Zero Coalition**

in partnership with

**the City of Cambridge**

**AUGUST 2019**

Introduction	1
Vision Zero Fundamentals	2
Build a Robust Data Framework	4
Set Measurable Goals with a Clear Timeline for Implementation	6
Be Accountable	8
Ensure Transparency	10
Vision Zero Actions	12
Building Safer Streets	14
Reducing Speeds	16
Engaging the Community	17
Strategic Enforcement	18
Crash History	20

# Introduction

In 2016, the Cambridge City Council adopted Vision Zero, and in February of 2018, the City released the Vision Zero Action Plan. This report outlines the City's accomplishments and challenges faced in the first year after the release of the Vision Zero Cambridge Action Plan, and provides next steps for implementation.

Both the City of Cambridge and the Massachusetts Vision Zero Coalition are committed to transparency in the reporting on progress of Vision Zero initiatives and reaching the goal of zero fatalities and serious injuries in Cambridge. This progress report, jointly released by the Coalition and the City, is a collaboration that bridges community members, advocacy organizations, and municipal entities. Producing a joint report ensures transparency and accountability by deploying the Vision Zero Coalition as a third party to assess the City's progress.

The framework of this report aligns with the guidelines published by the national Vision Zero Network in "Vision Zero: Planning an Effective Road Map For Action." The guidelines lay out two key areas of a strong Action Plan: Foundational Elements and Actionable Strategies, which are both underpinned by a process of continued community engagement and attention to prioritizing equity.

The City of Cambridge has shown leadership in integrating Vision Zero throughout relevant departments, and continues to demonstrate a commitment to safe streets for all people. In particular, the City has gone above and beyond their Action Plan goals related to speed management, committing to implement a speed limit of 20 mph on primarily local-access streets across the city. The City faces challenges around access to accurate data, which impacts its ability to measure progress on aspects of Vision Zero such as injury crashes. In addition, balancing ambitious implementation of safety projects with community support is an important process that the City continues to engage in.

The City plans to release an updated Action Plan within the next year, which will build off of the next steps included in this report and ensure that the City is being responsive to current conditions and emerging trends, communicating transparently with the public about progress, and setting new, measurable goals.

The City of Cambridge and the Vision Zero Coalition look forward to continuing working together on further planning, implementation, and evaluation efforts.

# Vision Zero Fundamentals

Vision Zero Fundamentals are the core elements required to support systemic change on our streets. They allow municipalities to create goals that are concrete and action-driven, while being responsive to the context and needs of the community served.



*Photo: Nicolaus Czarnecki*



*Photo: Kyle Klein*



*Photo: Nicolaus Czarnecki*

# Build a Robust Data Framework

*Vision Zero is a data-driven approach. Both gathering, analyzing, utilizing, and sharing data on crashes and collecting community input to understand traffic safety priorities is fundamental to Vision Zero success.*

The City of Cambridge has shown leadership in the development of a data strategy and thoughtfulness about tracking indicators that prioritize safety outcomes. However, the City should work to share their data strategy with the general public and provide more information about how data is used to inform their project selections.

## Achievements:

- Releasing a crash analysis report showing crash trends and locations.
- Creating a data strategy that lays out how the City will collect and disseminate data.
- Police Department consistently reporting crash data to the State and other City departments.
- Updating the open data portal to include a Vision Zero tag, so that users can easily search for related datasets.

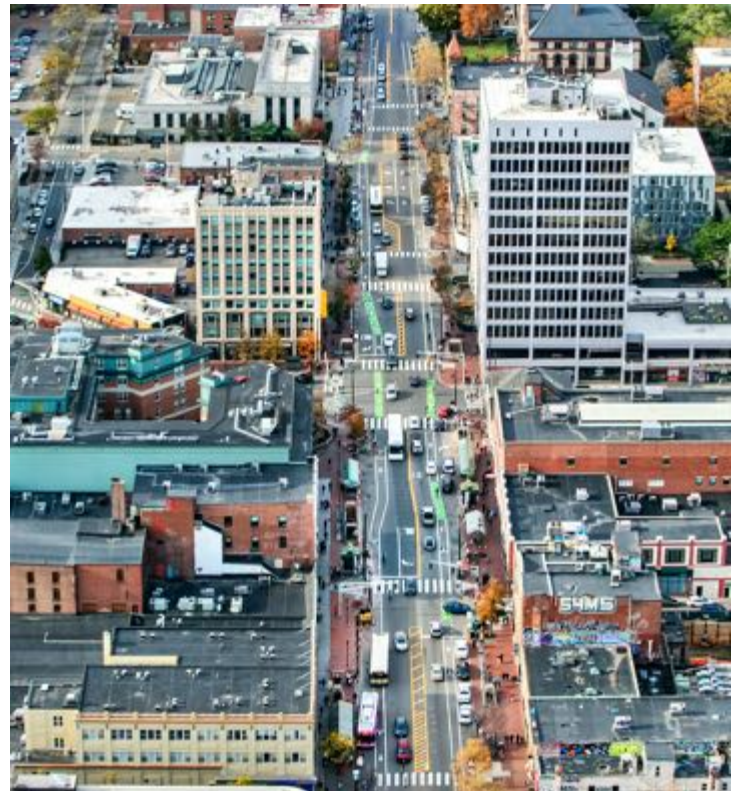


Photo: Kyle Klein

## Challenges:

**Data around the severity of injuries from crashes is limited.** Using data related to Emergency Medical Services (EMS) transports leaves out many injury crashes involving people who seek medical treatment on their own. Crash reports do not provide the necessary data because police officers are not always able to accurately assess injury severity, and people who have been in a crash may not be aware of their own injuries in the immediate aftermath of a crash. Additionally, data from healthcare providers can be difficult to access because of privacy laws.

**Non-motorist crashes are underreported.** In part, this is because when a crash doesn't result in damage to a motor vehicle, there is less incentive for involved parties to report crashes for insurance reasons. In addition, the State's crash form for police officers was originally designed to report on collisions involving motor vehicles, so there is often limited information provided about the circumstances of crashes involving people walking and biking.

**In addition to challenges around accessing data, it is challenging to select specific indicators to track progress.** Many benchmarks do not directly connect back to the goal of Vision Zero. For example, a project that results in lower speeds may not always see a reduction in the number of overall crashes, but there may be a key reduction in severe injuries and fatalities, as the severity of each individual crash is minimized.

## Next steps:

- Clearly communicate about what data is available and what the strategies and goals are around data sharing.
- Create a data dashboard that provides high-level information like the number of crashes involving people walking or biking in an easy-to-access format.
- Continue to develop a list of indicators that can be tracked to help measure success.
- Begin conversations with partners in the region about opportunities to improve access to serious injury data.



*Photo: Kyle Klein*



# Set Measurable Goals with a Clear Timeline for Implementation

*Clear, measurable short-term and mid-term goals, combined with timelines and ownership from responsible City departments, creates a framework that is easier to evaluate and fund, and builds buy-in, accountability, and transparency throughout the implementation process.*

The City has shown leadership in developing an Action Plan with concrete goals and timelines. Including action items that cover practices that were already underway in Cambridge before the commitment to Vision Zero serves as a testament to the City's long-standing commitment to traffic safety. However, the City may benefit from focusing on a smaller number of goals and setting new, measurable stretch goals in order to demonstrate leadership in making bolder, more ambitious progress on Vision Zero. Regularly updating the Action Plan is a best practice and will help to address these issues.

## Achievements:

- Setting concrete and actionable goals in the Action Plan, including goal years.
- Ensuring that both the development and implementation of the Action Plan were multi-department efforts, so that the work is shared among many staff members.



*Photo: Nicolaus Czarnecki*



## Challenges:

**The Action Plan was ambitious by design, and was intended to help the City chart an aggressive course of action.** Therefore, the Action Plan included targets that were aspirational in that they might not be achievable in the designated time frame. However, this was not made clear to the community through a system of prioritization or by providing details about feasibility.



*Photo: Nicolaus Czarnecki*



*Photo: Kyle Klein*

## Next steps:

- Update the Action Plan to reflect the progress achieved and to set new goals and timelines. The plan must be clear about which items are priorities for completion, with timelines attached, and which are meant to be aspirational.
- Keep pace with the Action Plan's intended deadlines.

# Be Accountable

*Vision Zero is rooted in the shared responsibility among many City departments to design and operate safe systems for transportation. This includes creating clear ownership and budget implications for each of the Action Plan strategies.*

The City of Cambridge has trained staff on Vision Zero principles and has shown leadership in integrating Vision Zero throughout relevant departments, projects, and policies. To build off of this success, the City should ensure there are well thought-out implementation strategies for each action item, including which staff members are responsible for the execution and reporting back.

## Achievements:

- Demonstrating top-down support for Vision Zero as a strategy, integrating Vision Zero into all relevant departments and City plans, including Envision Cambridge and the Community Health Improvement Plan.
- Committing to providing Action Plan evaluations and updates.



Photo: Kyle Klein

## Challenges:

**The City is committed to being ambitious in their goal setting.** As a result, it's not always clear to the public how goals are being prioritized and what defines success.



Photo: Kyle Klein



Photo: Kyle Klein



Photo: Nicolaus Czarnecki

## Next steps:

- Specify responsibility for all Action Plan items.
- Consider ways to indicate priority of specific action items.



# Ensure Transparency

*The process of establishing baseline data, creating an Action Plan, and assessing progress towards the goal of zero must be transparent to the public.*

The City has made an important commitment to transparency by developing the Action Plan in-house with input from all relevant departments. The City furthered this commitment to transparency by hiring a Communications Manager for the Traffic, Parking, and Transportation Department. This new staff person helps existing staff members explore opportunities to improve transparency and communication between the City and constituents, including helping to execute some of the communications initiatives outlined in the Action Plan.

## Achievements:

- Following up on all crashes on City-owned streets, and sharing important data with partners at the state level.
- Establishing the Vision Zero Advisory Committee, holding quarterly Committee meetings, and working with the Committee to establish goals.



*Photo: Kyle Klein*

## Challenges:

**Because Vision Zero projects and initiatives are integrated among many departments, it can be difficult for community members to know what work is being done across the city.** The City must work to develop a streamlined process for sharing updates on the Action Plan goals.



Photo: Kyle Klein



Photo: Kyle Klein

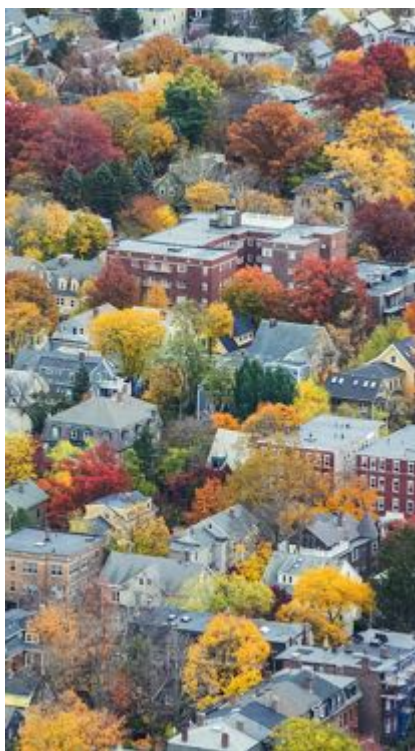


Photo: Kyle Klein

## Next steps:

- Implement an online map to collect public feedback.
- Develop a new Vision Zero webpage that builds off the existing page and incorporates additional information on Vision Zero, Vision Zero related projects, and other key resources.



Photo: Kyle Klein

# Vision Zero Actions

Key among Vision Zero Actions are managing speed, prioritizing safe roadway design, centering equity, and engaging the community. Vision Zero actions are the tangible steps taken towards the goal of eliminating all crashes that result in serious injuries or fatalities.





*Photo: Nicolaus Czarnecki*



*Photo: Kyle Klein*



# Building Safer Streets

The City has built upon a solid foundation of safety-focused projects and policies, and has made good progress on many of the Action Plan goals. The next step is to develop standard evaluation methods in order to track the effectiveness of implemented projects.

## Achievements:

- Implementing three separated bike lane projects in FY18 on Brattle St, Cambridge St, and Mass Ave in Harvard Square and three projects in FY19 on South Mass Ave, Main St (westbound), and Ames St (Broadway to Main) to keep pace with Action Plan goals.
- Adding additional green markings, installing rectangular rapid flash beacons (RRFBs), installing additional Accessible Pedestrian Signals (APS units), and making signal improvements at intersections (including a significantly lengthened head start for pedestrians in Central Square).
- Making strides in improving truck safety, including: holding an urban freight forum with a focus on truck safety; compiling a draft truck side guard ordinance; and installing side guards on most eligible City-owned vehicles.
- City Council passing an ordinance that mandates protected bike lanes be installed on any street that is being reconstructed and has been previously identified as part of the separated network in the Cambridge Bicycle Plan.



*Photo: Kyle Klein*

## Challenges:

**Pavement markings are a primary tool for re-designing streets and reaching Vision Zero goals; however, installation is contingent on certain weather and seasonal conditions.** Pavement markings cannot be installed when the pavement is wet or on days when the low temperature is below fifty degrees. The City works to make the most out of the pavement marking season, but projects can be stalled at any moment due to rain, and the paving season can end unexpectedly if cold weather comes early.

**As is typical in many cities, a significant portion of pavement markings are installed by companies that are contracted by several different municipalities.** Since contractors must balance their schedules between different places, project installation can take longer than desired.

**Quick-build projects are relatively new in Cambridge and result in faster-paced implementation than some residents are accustomed to.** Community support for projects can pose a challenge to the pace of implementation.

**Some intersections and corridors in Cambridge where serious and fatal crashes have occurred are owned or managed by the State or private entities.** The City does not have the authority to make changes in these places but will continue to participate in conversations about how to make improvements in these locations.



*Photo: Kyle Klein*

## Next steps:

- Document the rapid response protocol for when fatal crashes occur.
- Develop a method to evaluate the safety effects of projects.
- Implement projects on Inner Mt. Auburn, Main St (eastbound), and Ames St (Main to Memorial Drive) in FY20.
- Continue to hold driver education trainings for City employees.
- Explore opportunities for regional collaboration to improve the predictability of pavement marking contractor schedules.
- Continue to work with MA Vision Zero Coalition to implement bike / bus driver trainings.

# Reducing Speeds

The City of Cambridge has gone above and beyond their Action Plan goals related to speed management by taking steps to reduce the speed limit to 20 mph on a much larger number of streets than originally planned. In addition, the Cambridge City Council has shown leadership by explicitly supporting and advocating for an automated enforcement bill that would allow cities and towns to opt into speed and red light cameras (S.1376).

## Achievements:

- Reducing the default speed limit from 30 to 25 mph, and creating 20 mph Safety Zones in Cambridge's five major squares.
- Committing to implement a speed limit of 20 mph on primarily local-access streets.
- City Council expressing support for S.1376, An Act Relative to Automated Enforcement.

## Challenges:

**While there is convincing evidence that lowering the posted speed limit without other interventions can reduce speeding, it is best practice to also implement design changes in order to reduce speeds.** However, design changes require significant time, space, funding, and community support to execute, and therefore must be rolled out in a deliberate manner.

## Next steps:

- Continue to communicate the new default speed limit changes to the public, and educate residents on why slower speeds are safer.
- Implement a speed limit of 20 mph on primarily local-access streets, including a public outreach and education campaign.
- Continue to identify traffic calming opportunities in all capital projects.

# Engaging the Community

The City is making good progress on implementing the impactful education strategies identified in the Action Plan, and is on track to complete many of these items in the coming year.

## Achievements:

- Implementing Safe Routes to School programming at elementary and upper schools.
- Distributing copies of the “Street Code” and the “Getting Around Cambridge” magazine.
- Hiring a Communications Manager in the Traffic, Parking, and Transportation Department.
- Making sustainable transportation the focus of the 2017-2018 Glocal Challenge, engaging 133 high school students in twelve weeks of programming about transportation and how to make it more sustainable and equitable, locally and globally.

## Challenges:

**Cambridge is a city with significant regional traffic, including workers commuting to jobs, an ever-changing student population, and tourists.**

Communicating with people on Cambridge's streets requires engagement strategies that reach both residents and people who are traveling through the City or spending even short periods of time on its streets.

## Next steps:

- Ensure all Vision Zero outreach and communications efforts reach underserved and vulnerable residents, including people with disabilities.
- Continue building partnerships with employers and institutions to reach non-resident populations.
- Continue building relationships with rideshare companies, including Uber and Lyft, to facilitate driver education and training.
- Continue working to educate people to prevent stopping and parking in bike lanes, crosswalks, and pedestrian ramps.

# Strategic Enforcement

While enforcement has a role to play in traffic safety efforts, it should not be a primary strategy and should be approached thoughtfully. The City of Cambridge Police Department (CPD) has long been committed to the idea of equitable enforcement and has engaged in community policing strategies for over 10 years. Before the adoption of Vision Zero, the City hired a Traffic Analyst in the Police Department who focuses on doing high-level analyses to understand trends related to traffic crashes. More recently, the City established the Office of Procedural Justice in the Police Department to focus on proactively monitoring data related to police-citizen interactions for indications of possible racial profiling. CPD is one of the many departments in Cambridge that has embraced Vision Zero. CPD's approach to traffic enforcement for Vision Zero projects acknowledges the role that enforcement can play in changing behaviors, while also respecting the fact that people need time to learn about new infrastructure.

## Achievements:

- Employing strategic enforcement after the installation of Vision Zero projects, including South Mass Ave.
- CPD developing a guide to direct enforcement with an emphasis on reduction of harm. The analysis focuses on past crashes resulting in EMS transport, broken down by patrol sector and shift. The document highlights causes of crashes within hotspot areas, and provides guidance for what type of enforcement officers should conduct to prevent similar crashes.
- Conducting Vision Zero training for all Cambridge police officers.



*Photo: Kyle Klein*



## Challenges:

**Identifying the causes of crashes is difficult on the large scale, which limits how strategic CPD's enforcement can be.** The relevant information from police reports is typically embedded in a narrative, rather than in data fields. CPD can read the narratives of the relatively small number of reports that occur within notable crash hotspots. However, understanding broad trends in causes across all of the crash data is difficult because of the large number of crashes and the lack of detailed information about causality. It is therefore difficult to identify what enforcement actions would prevent the types of crashes that have historically caused injuries in Cambridge.



*Photo: Kyle Klein*

## Next steps:

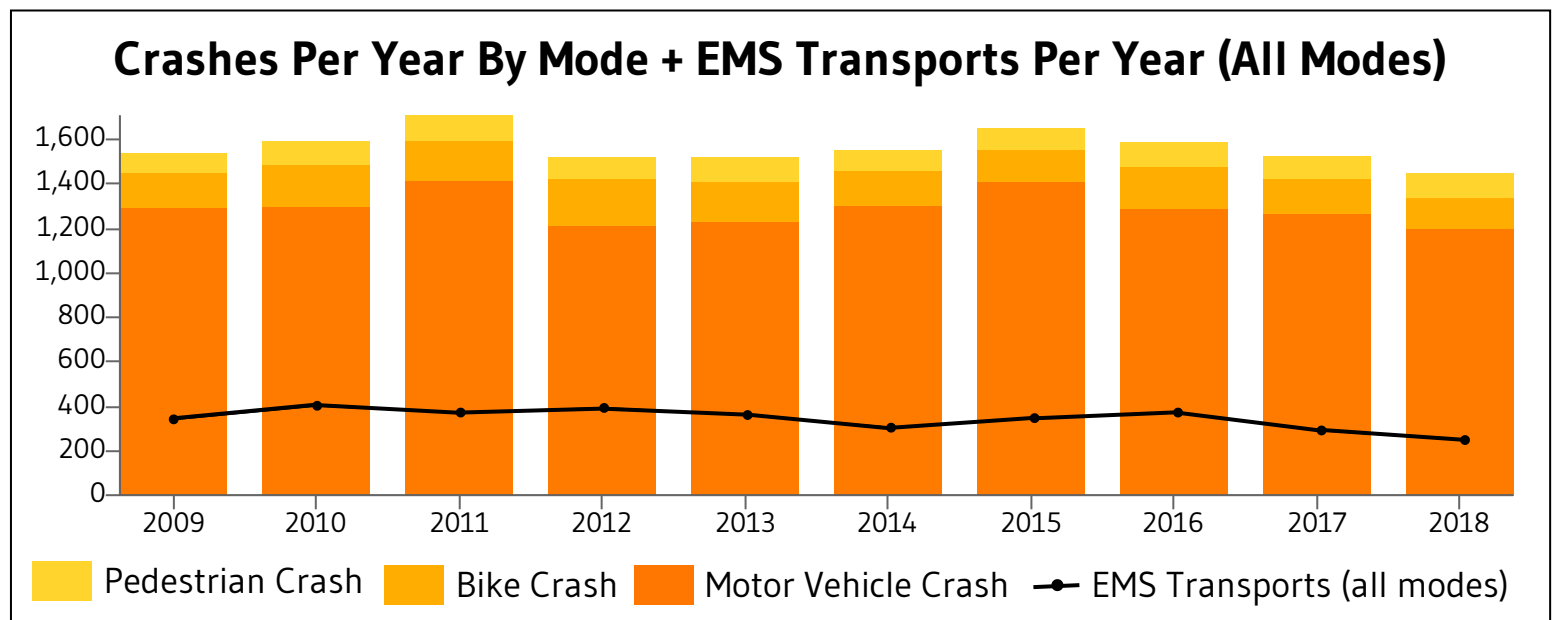
- Focus enforcement on the most dangerous behaviors based on reliable data.



*Photo: Kyle Klein*

# Crash History

The data presented below shows crashes on streets owned by the City of Cambridge for the last 10 years, categorized by the most vulnerable user\* involved in the crash and the number of Emergency Medical Services (EMS) transports. 2018 marked the lowest number of total crashes, and the lowest number of motor-vehicle-only crashes, bike crashes, and EMS transports. The data shows that motor-vehicle-only crashes have been on a consistent decline in recent years, after a peak in 2015. Crashes involving people walking or biking do not show clear trends in either direction.



## Missing Data

Cambridge has long been committed to using data to drive policies and decision-making processes. The data challenges faced by Cambridge are not unique, but still limit the City's ability to access key information needed to measure progress.

Police reports contain information about the mode of travel of the people involved in crashes, but EMS reports do not. Police reports do have a field for the officer to indicate EMS transports, but a significant number of reports are missing this information. In 2015, at least 50% of EMS transports were missing from the Police reports. The Cambridge Police Department has made major efforts to improve the accuracy of reports, and as of 2018 the reports included 80% of EMS transports.






Photo: Nicolaus Czarnecki

In the last 10 years, there have been zero people killed in a crash while traveling in a motor vehicle. Four people have been killed in crashes while biking, and nine people have been killed in crashes while walking. Cambridge has a low number of fatalities, so there aren't clear trends, but the data does clearly indicate that people are most vulnerable when walking or biking. The City acknowledges that even one crash that results in fatal or serious injuries is too many, and has shown a strong commitment to continuing to work towards the goal of zero.

## Fatalities Per Year By Mode

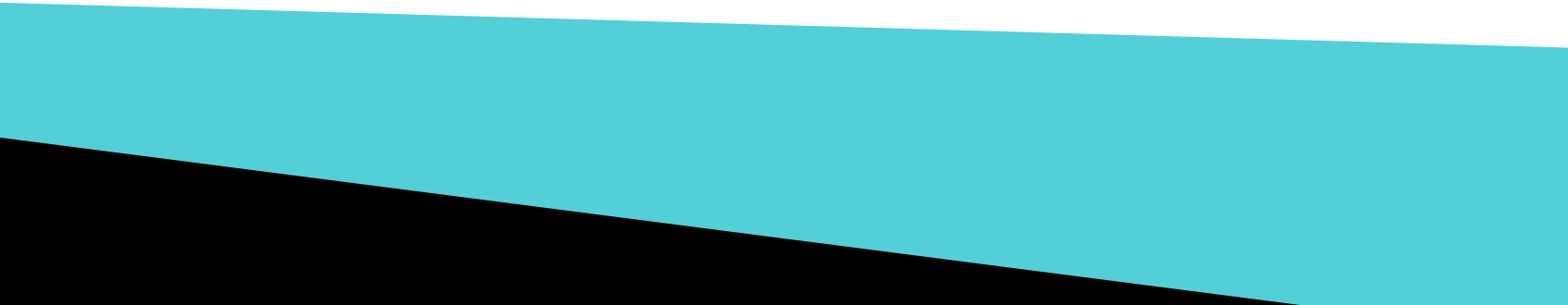
Year	Ped.	Bike	Auto	All
2009	0	0	0	0
2010	1	0	0	1
2011	2	1	0	3
2012	1	0	0	1
2013	0	0	0	0
2014	0	0	0	0
2015	0	1	0	1
2016	2	2	0	4
2017	0	0	0	0
2018	3	0	0	3
<b>Total</b>	<b>9</b>	<b>4</b>	<b>0</b>	<b>13</b>

*\*Any crash involving a pedestrian is considered a pedestrian crash. Any crash involving a bicyclist that does not also include a pedestrian is considered a bike crash. Any crash that only involves people in motor vehicles is considered a motor vehicle crash.*

A thick yellow diagonal stripe runs from the left edge of the page towards the bottom right, separating the top black section from the white section.

This report was developed by members of the **Massachusetts Vision Zero Coalition** and City of Cambridge staff from the **Traffic, Parking & Transportation Department**.

For more information on the City of Cambridge's Vision Zero efforts, go to **[www.cambridgema.gov/visionzero](http://www.cambridgema.gov/visionzero)**.

A thick cyan diagonal stripe runs from the left edge of the page towards the bottom right, separating the white section from the bottom black section.

For questions regarding the report, please contact:

**Louisa Gag, LivableStreets Alliance** | 617-621-1746 or [louisa@livablestreets.info](mailto:louisa@livablestreets.info)

**Najah Casimir, City of Cambridge** | 617-349-4359 or [ncasimir@cambridgema.gov](mailto:ncasimir@cambridgema.gov)