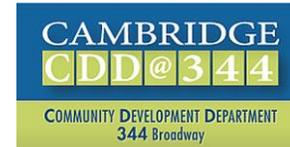


# Transportation Roundtable

Cambridge City Council

December 14, 2015



# Agenda

Local and regional approach to transportation

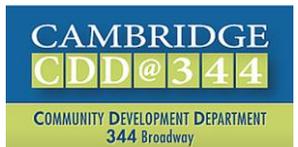
Cambridge transportation policies

Ongoing trends in transportation

Improving our infrastructure

Direction of the Traffic, Parking, and Transportation Department

How the transportation world is changing



# Agenda

## Local and regional approach to transportation

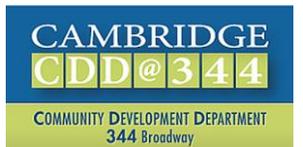
Cambridge transportation policies

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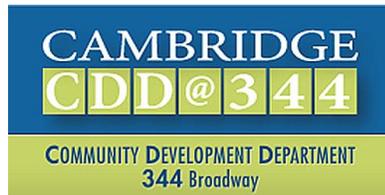
Improving our infrastructure

Direction of the Traffic, Parking, and Transportation Department

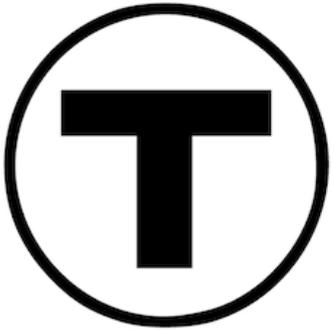
How the transportation world is changing



# Local Approach

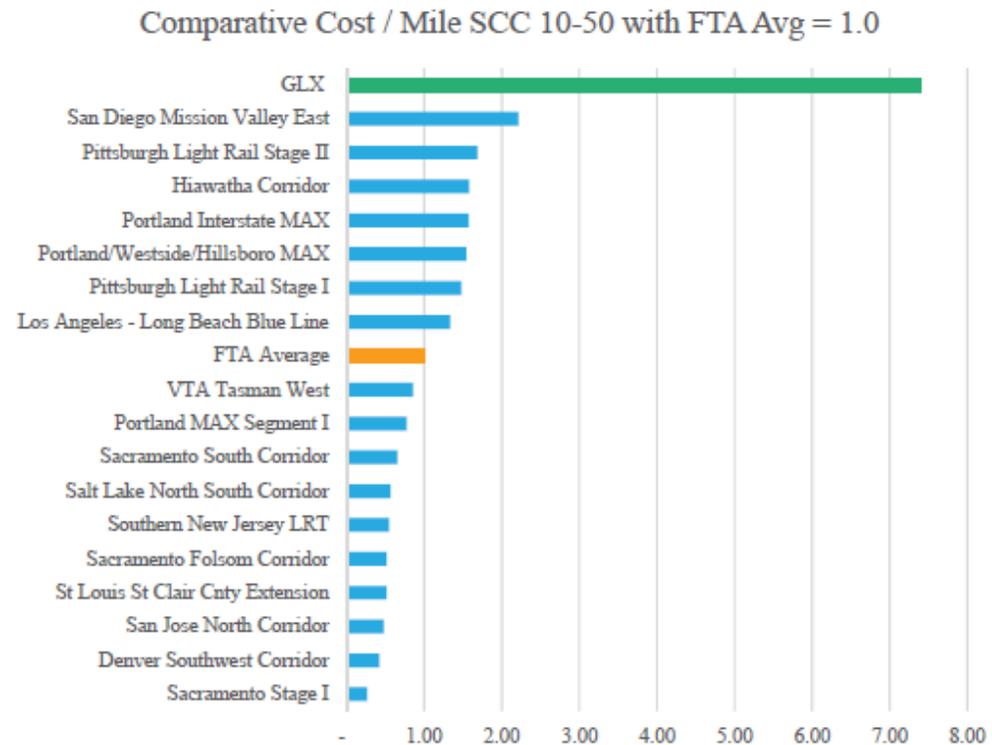


# Regional Approach



# Green Line Extension Update

- ▶ Projected 50% cost increase led to reassessment of entire project
- ▶ CM/GC project delivery has not worked as planned
- ▶ Two options remain on table
  - ▶ Cancel project
  - ▶ Substantially reduce the cost
- ▶ Options for cost reduction that impact Cambridge
  - ▶ Scaled back stations
  - ▶ Changes to Union Square branch
  - ▶ Changes to viaduct and community path design



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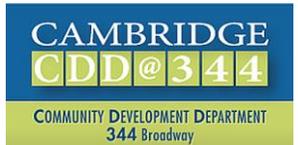


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# Green Line Extension Update

- ▶ Next steps
  - ▶ Revise design and determine if project will proceed
  - ▶ Determine new project delivery approach
  - ▶ Procure new consultants / contractors
- ▶ Cambridge involvement
  - ▶ Evaluate request for financial contribution (direct and leveraging private partners)
  - ▶ Monitor project status
  - ▶ Lobby for project continuation



# Agenda

Local and regional approach to transportation

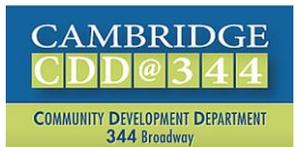
**Cambridge transportation policies**

Ongoing trends in transportation

Improving our infrastructure

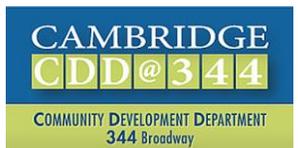
Direction of the Traffic, Parking, and Transportation Department

How the transportation world is changing

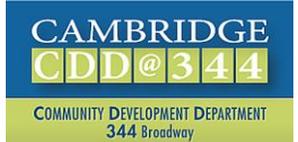


# Safe and Sustainable Transportation

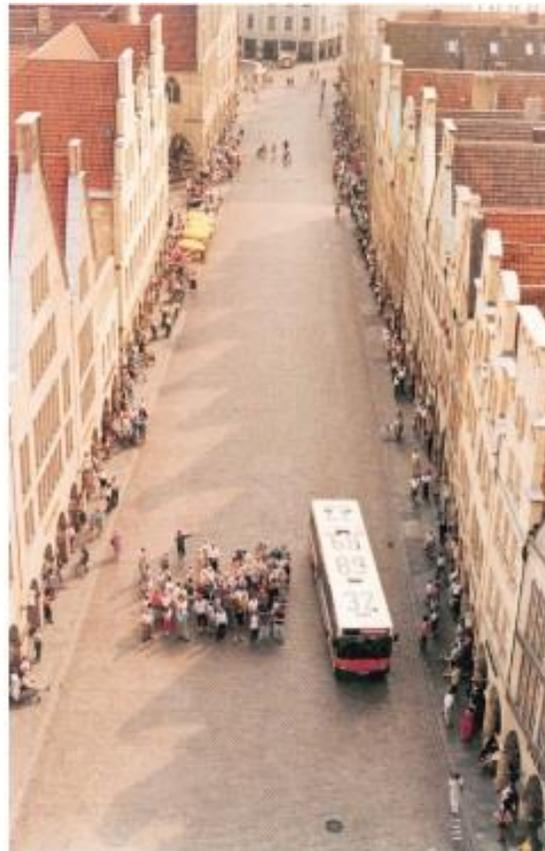
- ▶ Safety for all modes is paramount
- ▶ Low environmental impacts
  - ▶ Vehicle congestion and air quality lower
  - ▶ Street system aids stormwater goals
- ▶ Strong economy
- ▶ Health living



# Safety for All Modes is Paramount



# Low Environmental Impact



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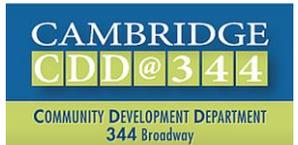


# Economic Benefits

## TRANSIT FOR A STRONGER ECONOMY



good walking is good business



# Healthy Communities



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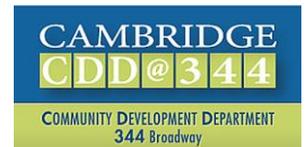
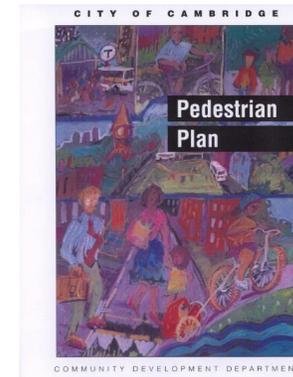
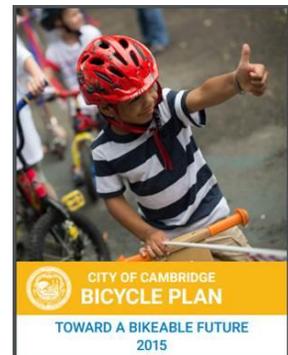
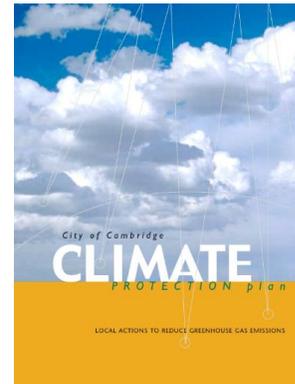
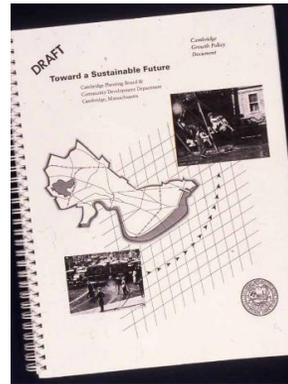


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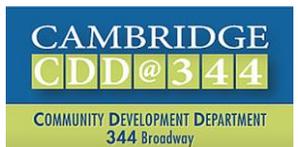
# Policies and Strategies

- ▶ Vehicle Trip Reduction Ordinance (VTRO)
- ▶ Parking and Transportation Demand Management (PTDM)



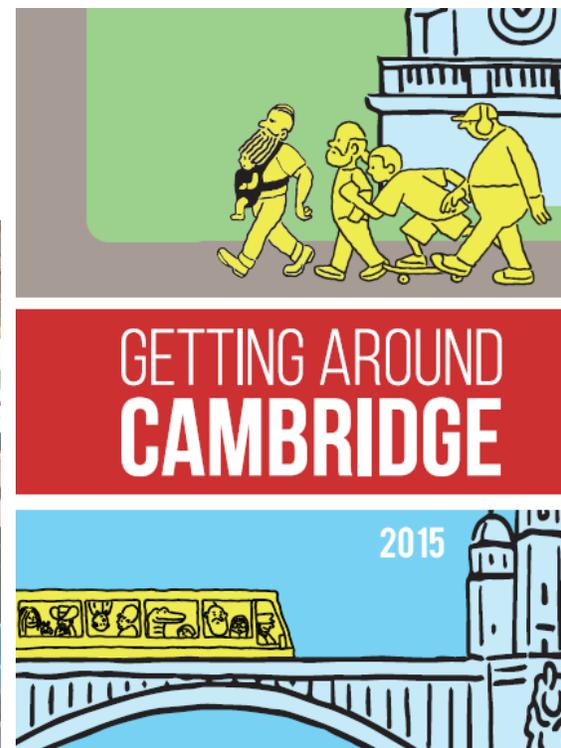
# Areas of Focus

- ▶ Outreach and education
- ▶ Reducing the traffic impact of development
- ▶ Adapting infrastructure to enable people of all ages and abilities to travel by foot, bike, and transit; efficiently and safely move people; and meet stormwater retention goals
- ▶ Working regionally to increase transit use and capacity and ensure resiliency of transit and roadway systems



# Outreach and Education

- ▶ Written materials
- ▶ Events and classes



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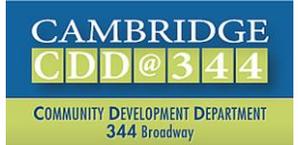
COMMUNITY DEVELOPMENT DEPARTMENT  
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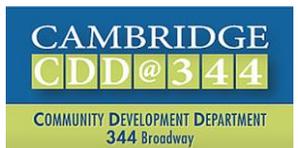


# Safe Routes to School



# Reducing the Traffic Impact of Development

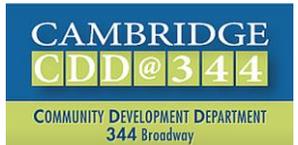
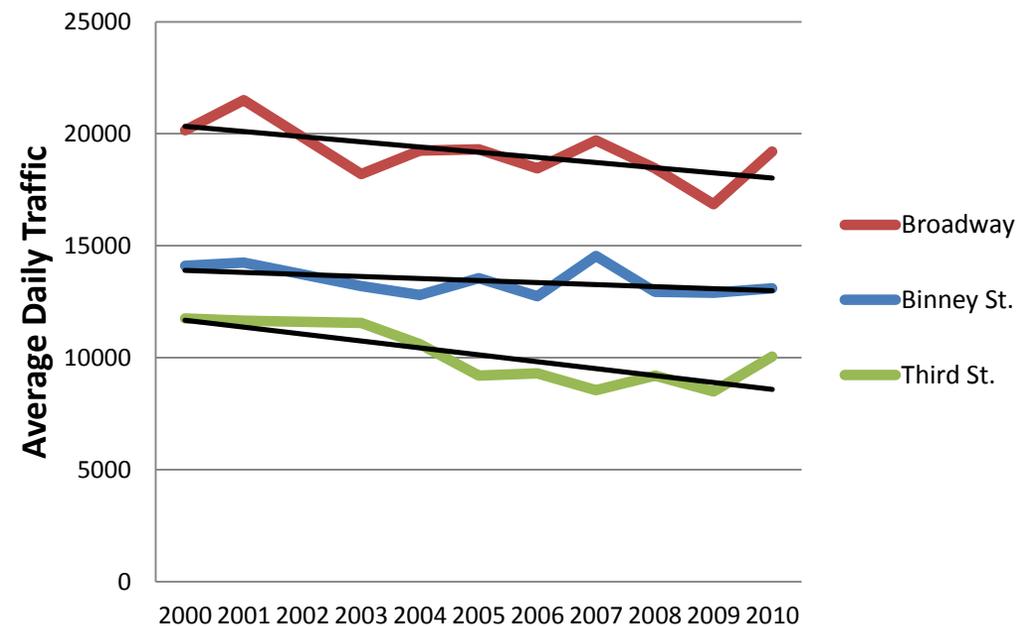
- ▶ Parking and Transportation Demand Management (PTDM) ordinance
- ▶ Good access for pedestrians, bicyclists, and transit users
  - ▶ Special Permit Review
- ▶ Good parking facilities for cyclists and those who rideshare



# Development and Traffic

- ▶ Added almost 4 million square feet in Greater Kendall from 2000-2010
- ▶ 37.6% growth in built square footage
- ▶ Daily Traffic Volumes remained consistent or decreased

**Kendall Square Average Daily Traffic  
with Trend Lines**



# Adapting our Infrastructure

- ▶ Redesigning streets to enable people of all ages to travel both safely and conveniently by foot, bike, and transit (Complete Streets)
  - ▶ DPW Five Year Plan for Street & Sidewalk Reconstruction
  - ▶ Stormwater Management Strategy



# Expanding our Infrastructure

- ▶ New technologies make transit use easier through apps and real-time displays
- ▶ Piloting of transit priority treatments



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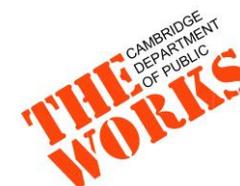


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# Working Regionally to Increase Transit Use and Capacity

- ▶ Planning for new service
- ▶ Strategies for additional funding for both state of good repair and new service



# Agenda

Local and regional approach to transportation

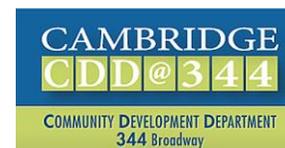
Cambridge transportation policies

**Ongoing trends in transportation**

Improving our infrastructure

Direction of the Traffic, Parking, and Transportation Department

How the transportation world is changing



# Trends: Awards and Recognition

- ▶ America's Most Walkable City

Source: *Prevention Magazine*, 2008, 2012

- ▶ Gold Level Bicycle Friendly Community Award

Source: *League of American Bicyclists*, 2013

- ▶ Massachusetts Excellence in Commuter Options (ECO) Pinnacle Award

Source: *MassCommute*, 2014

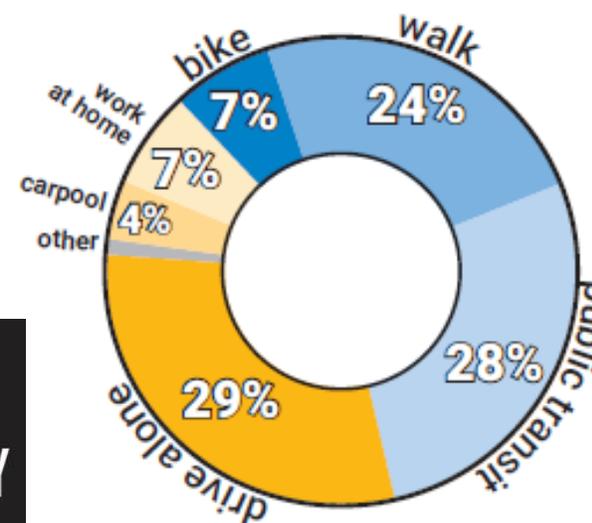


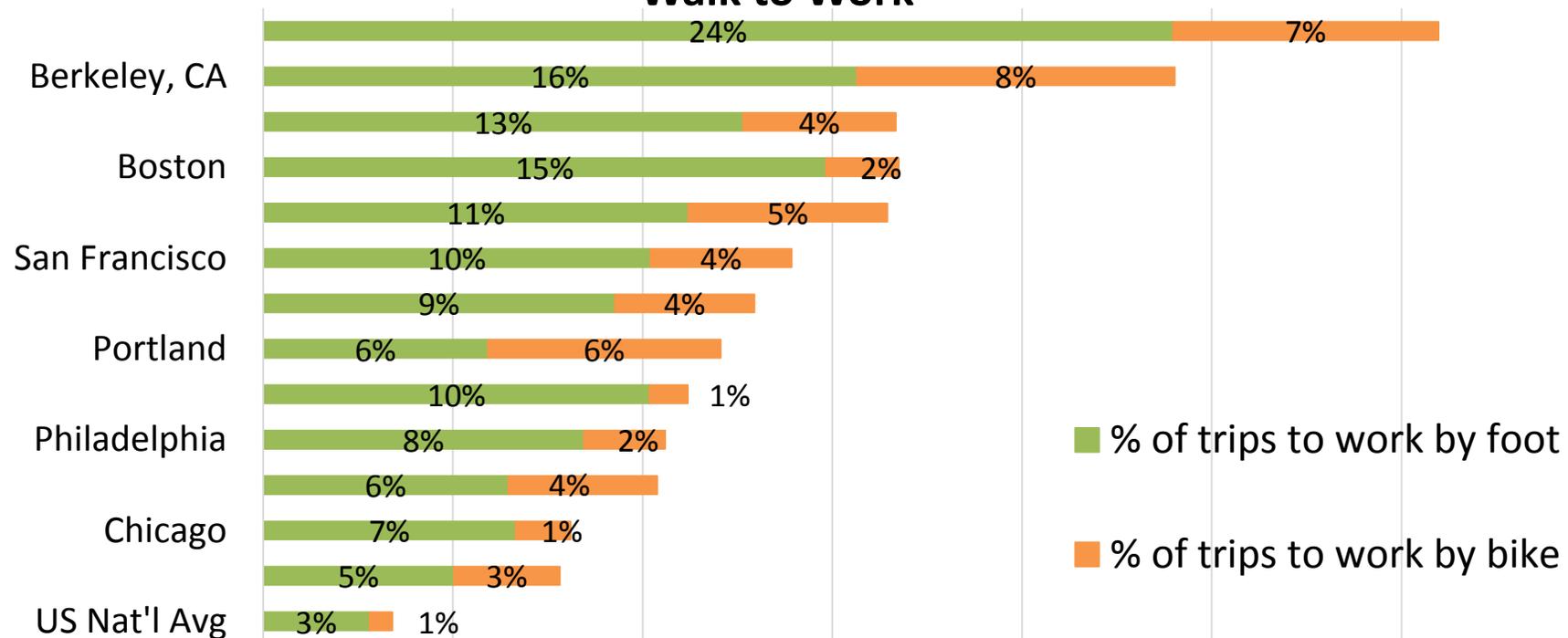
Figure 3.5:  
Mode Split for Cambridge Residents  
Commuting to Work

2011-2013 American Community Survey



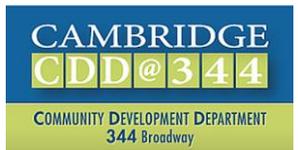
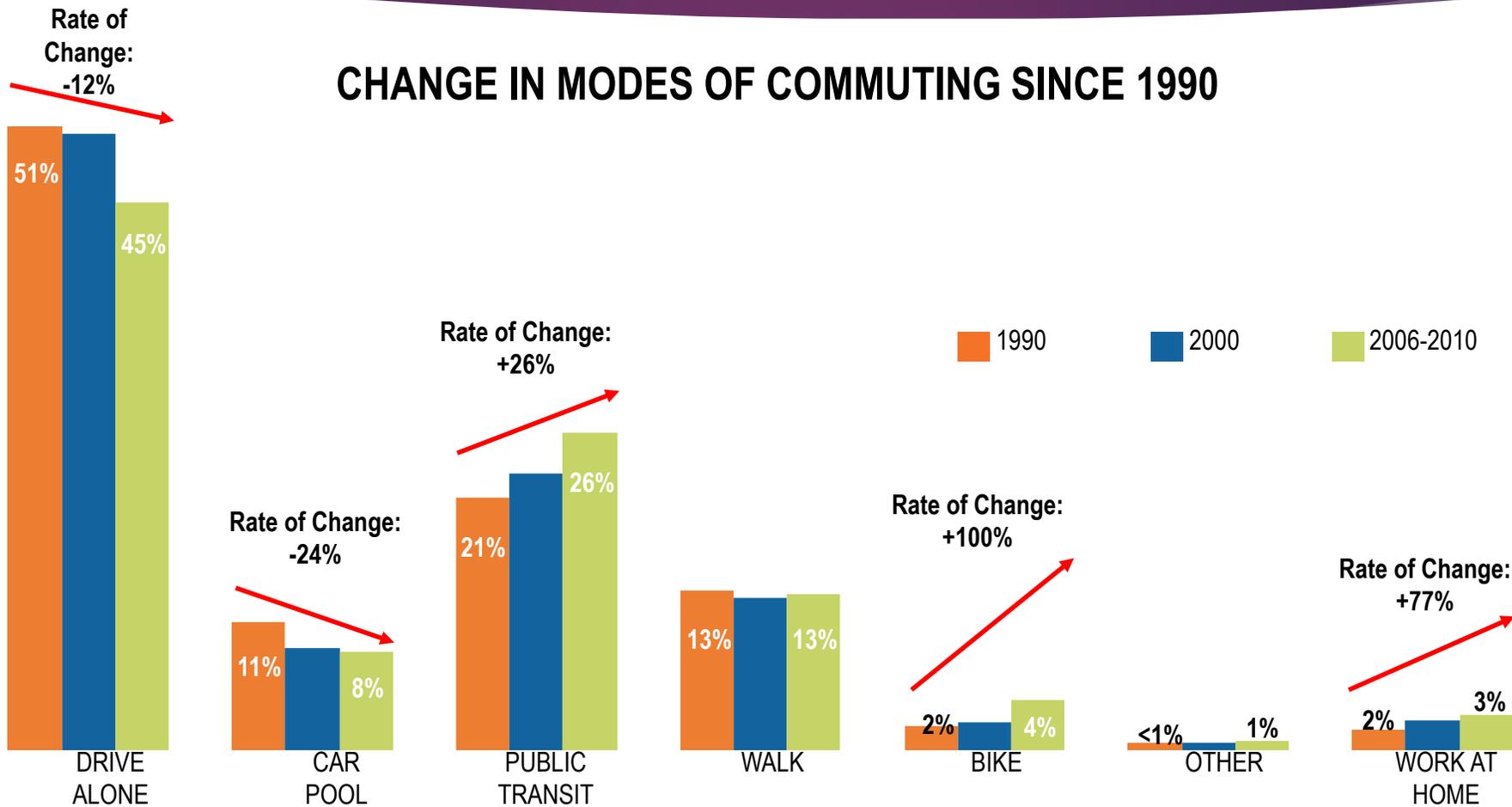
# Trends: Sustainable Commuting

## Residents Who Bicycle or Walk to Work



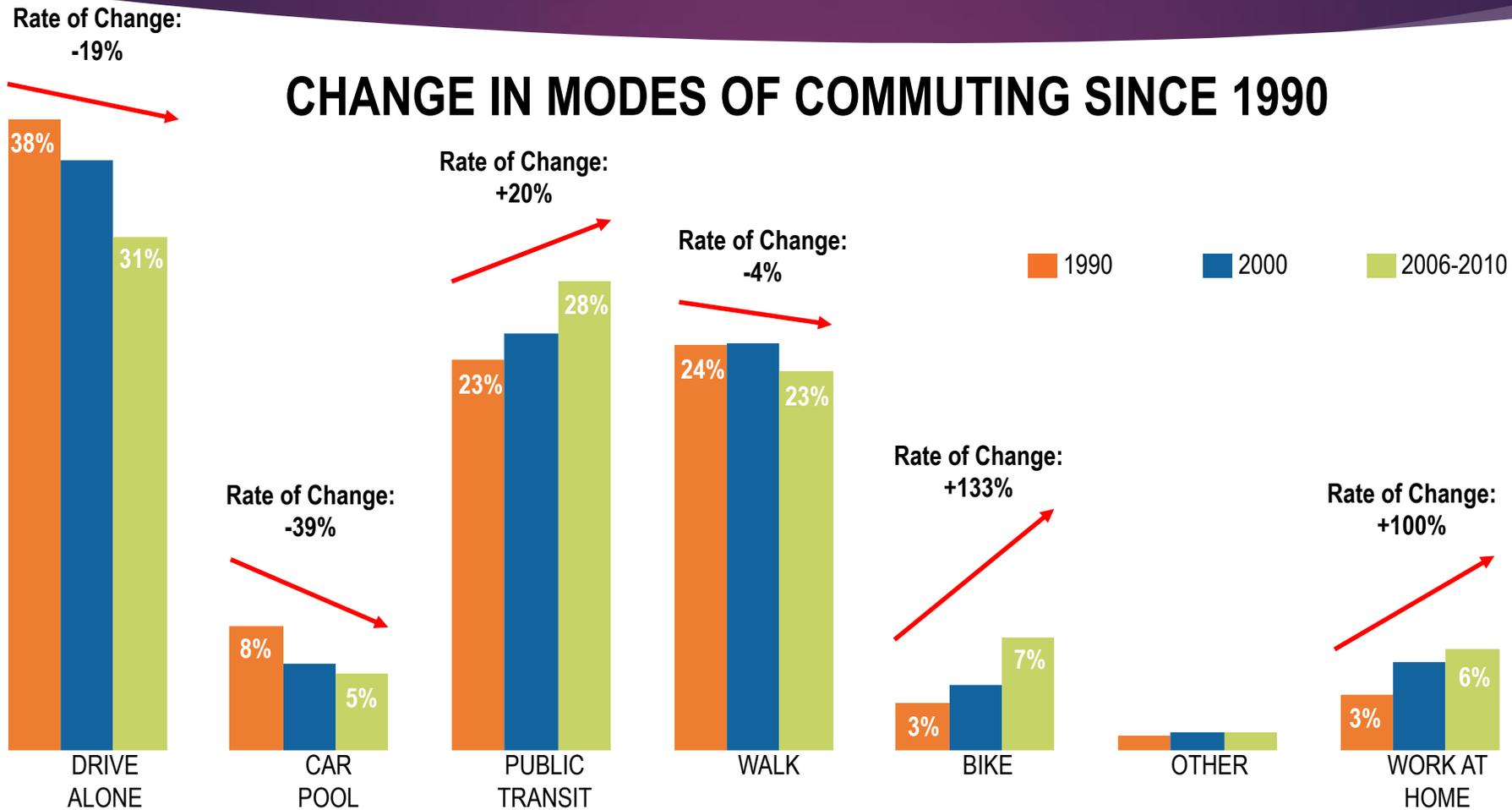
# Trends: Commuting to Cambridge

## CHANGE IN MODES OF COMMUTING SINCE 1990



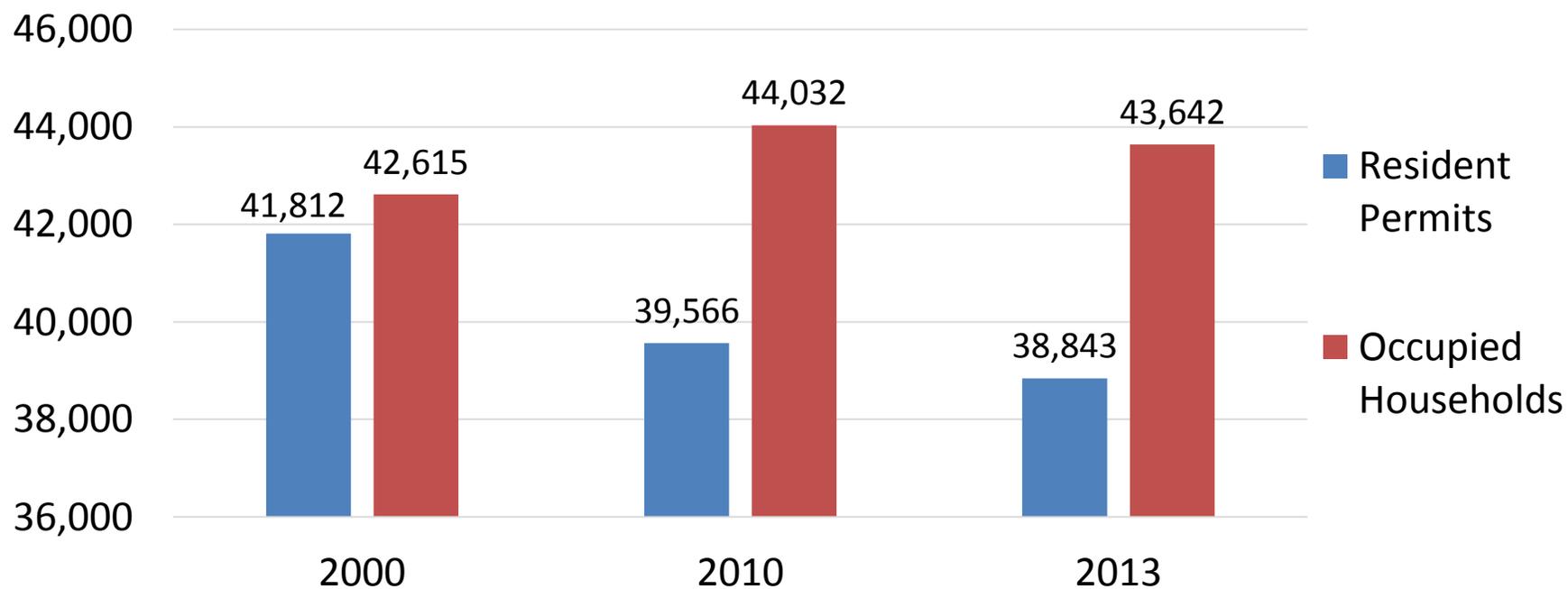
# Trends: Commuting from Cambridge

## CHANGE IN MODES OF COMMUTING SINCE 1990



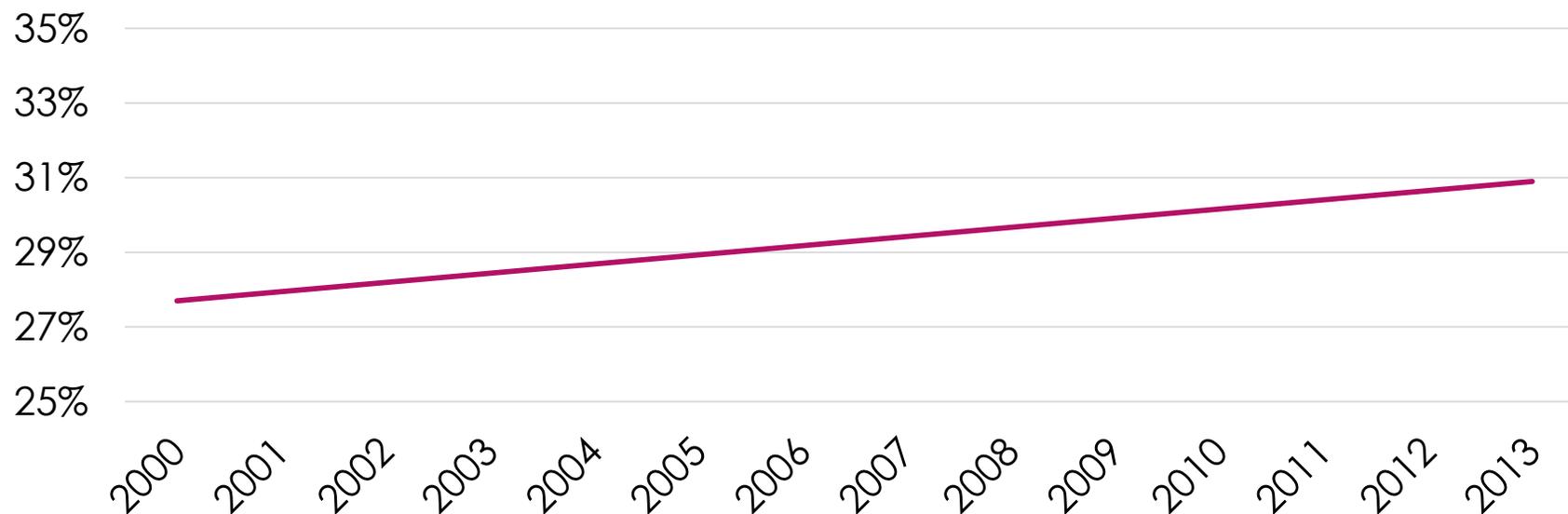
# Trends: Parking Permits

## Resident Parking Permits and Occupied Households



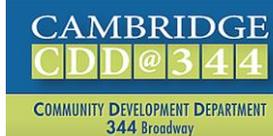
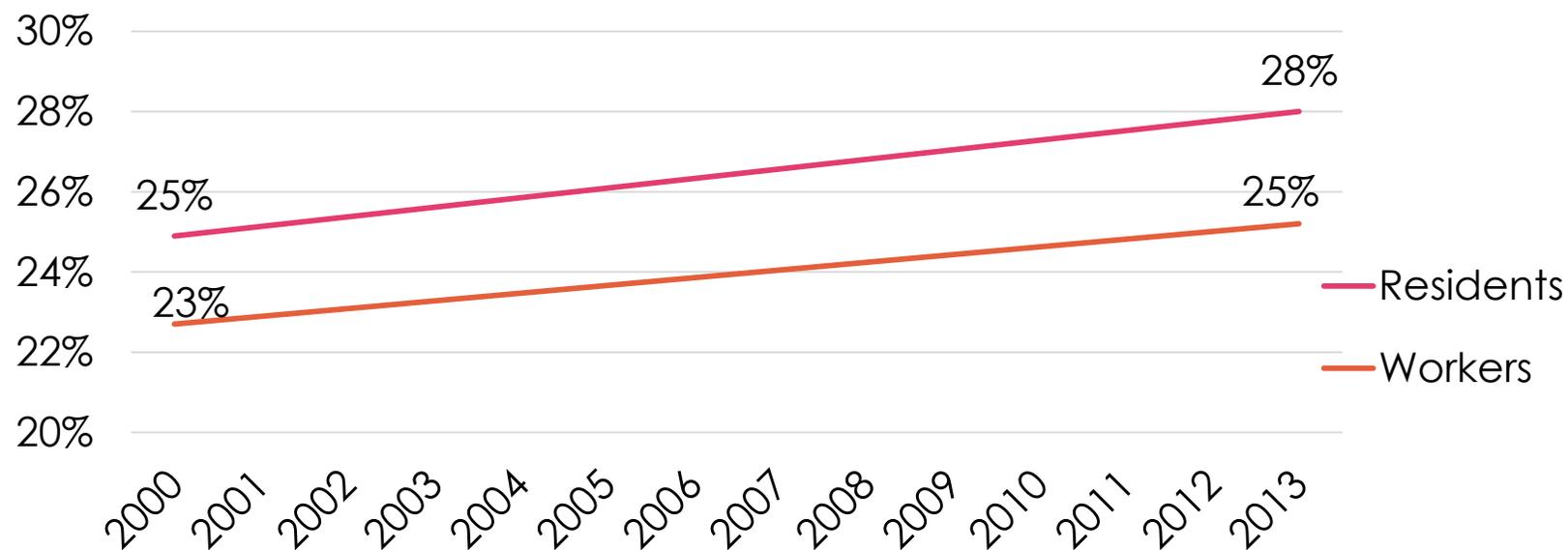
# Trends: Vehicle Ownership

## Households Without Vehicles

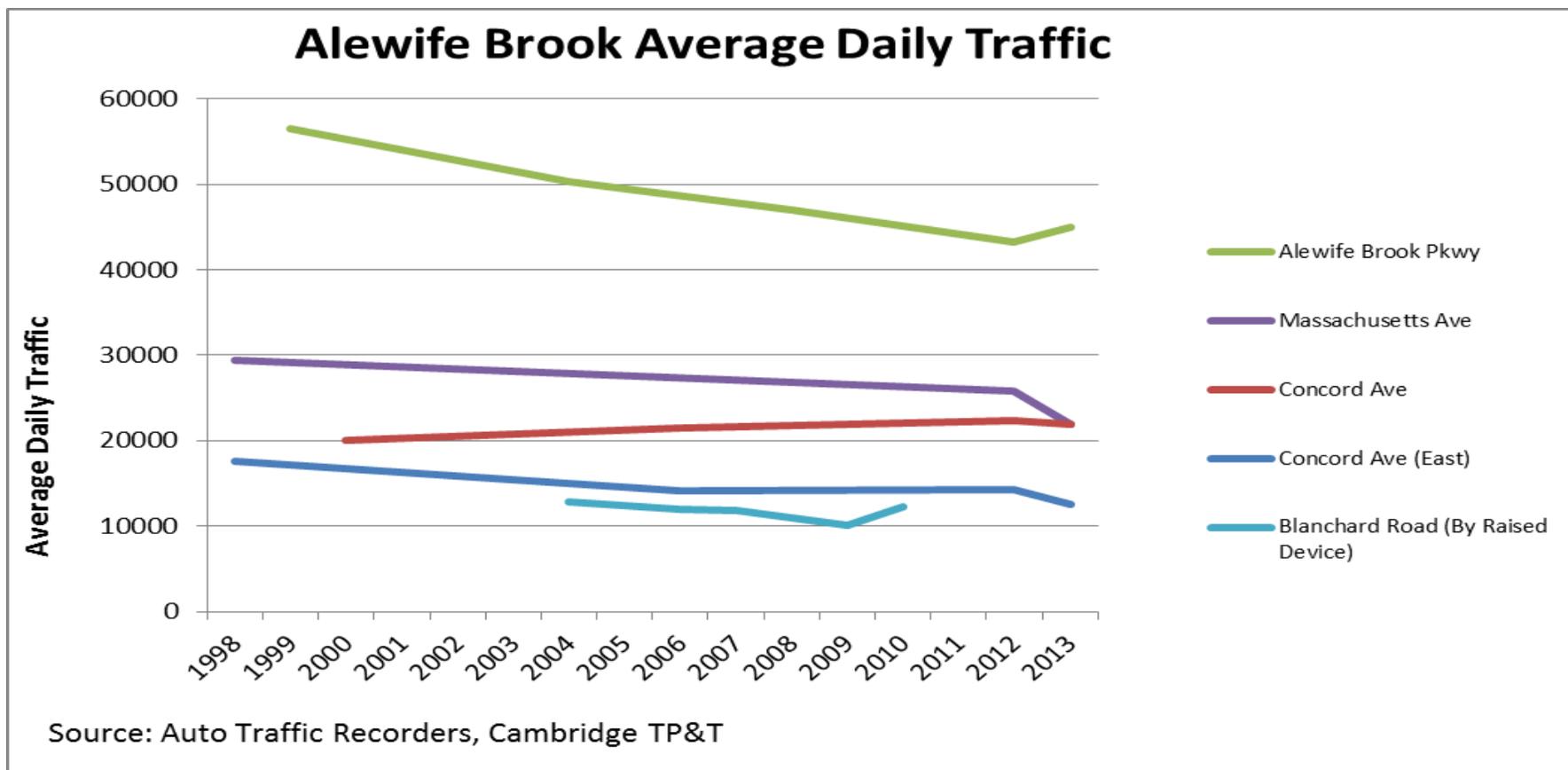


# Trends: Public Transit Ridership

## Commuters Using Public Transit to Travel To and From Cambridge



# Trends: Daily Traffic Volumes

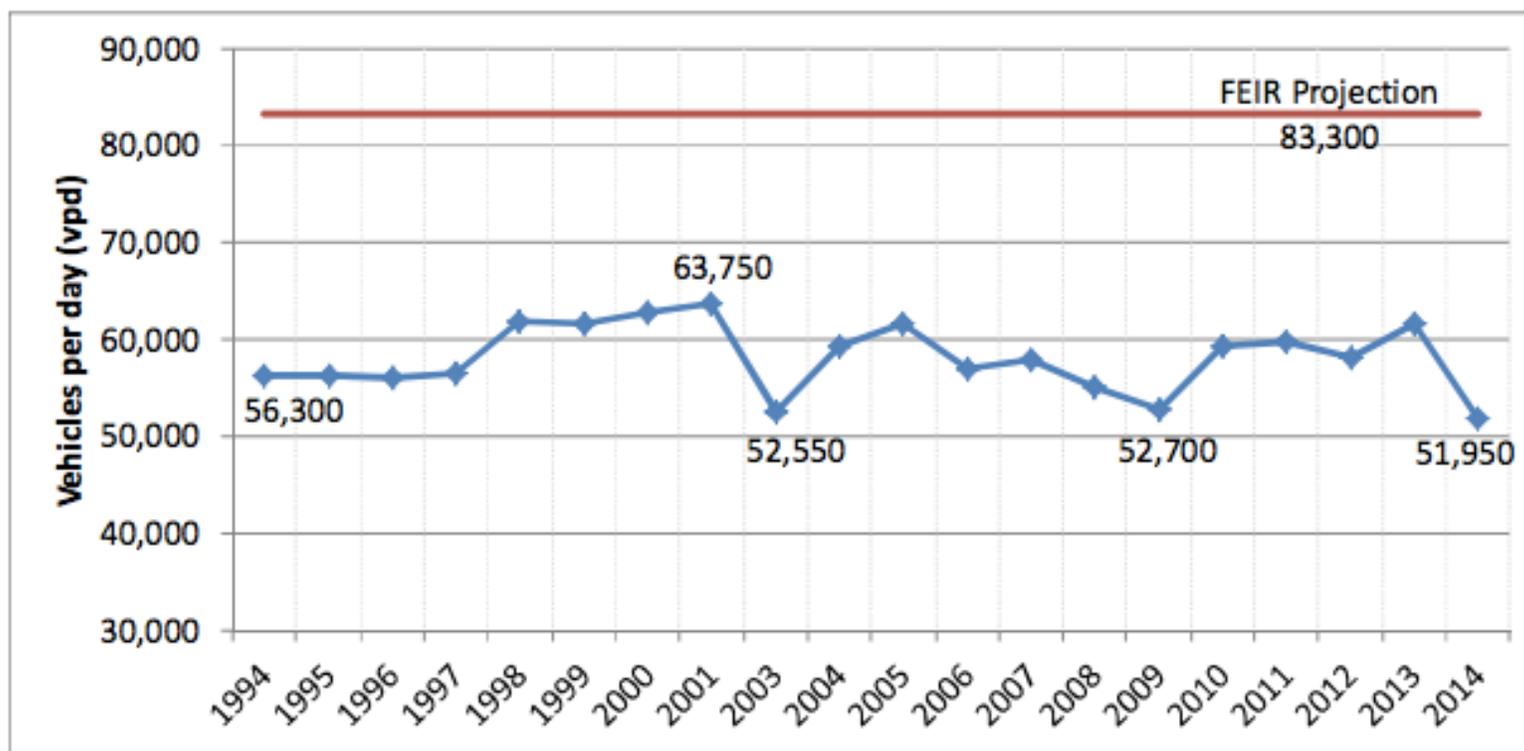


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# Trends: Daily Traffic Volumes

Cordon Average Annual Weekday Traffic Volume 1994-2014



# Agenda

Local and regional approach to transportation

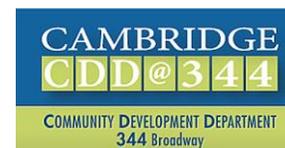
Cambridge transportation policies

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How the transportation world is changing



# Five Year Sidewalk and Street Reconstruction Plan



## 5 YEAR PLAN | TABLE OF CONTENTS

The Five Year Sidewalk and Street Reconstruction Plan identifies the streets and sidewalks that are anticipated to be reconstructed each year for the next five years. This document has been sorted into five sections as outlined below.



Pedestrian Safety



Landscape Enhancements



Bicycle Accommodations



Roadway Improvements



Accessibility Upgrades

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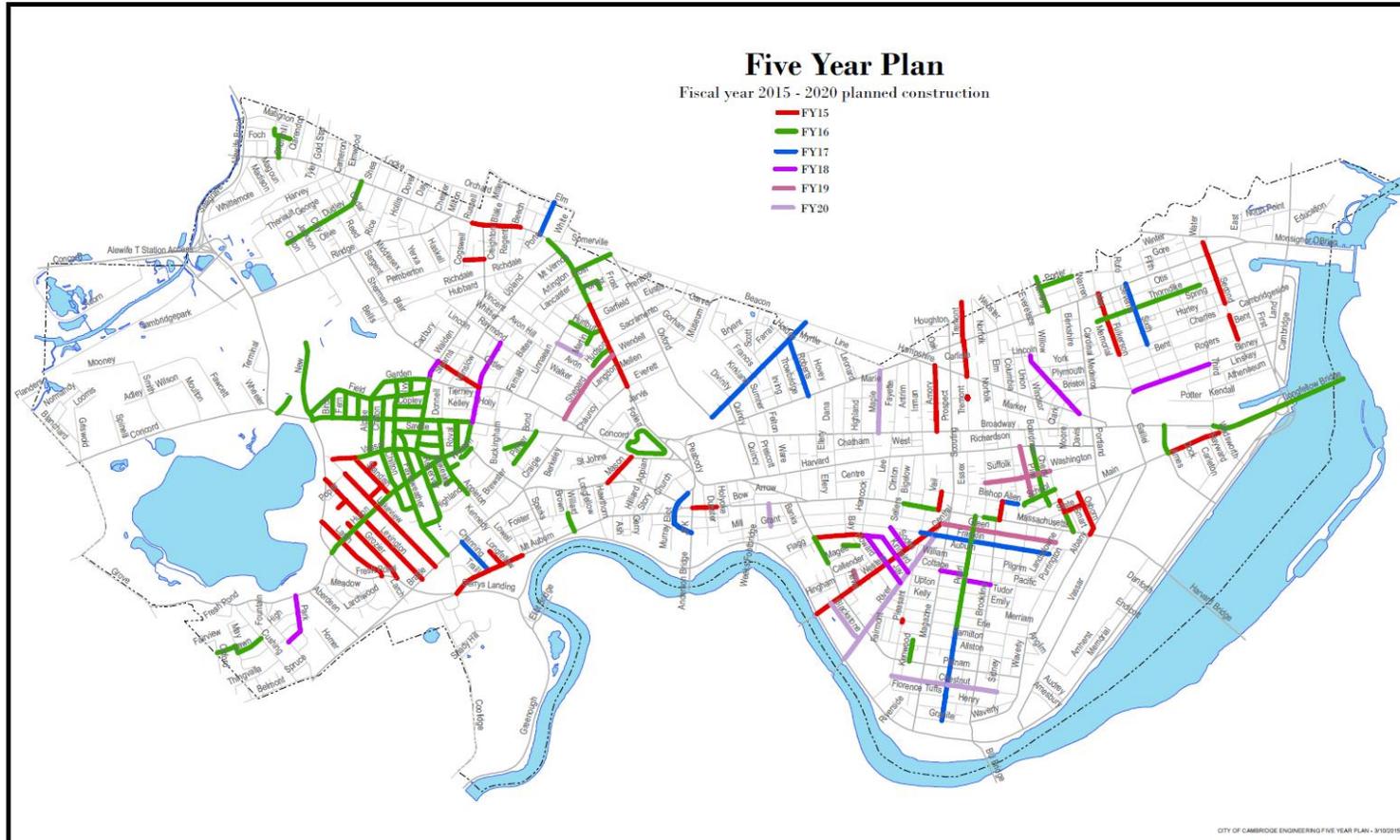
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# Five Year Sidewalk and Street Reconstruction Plan



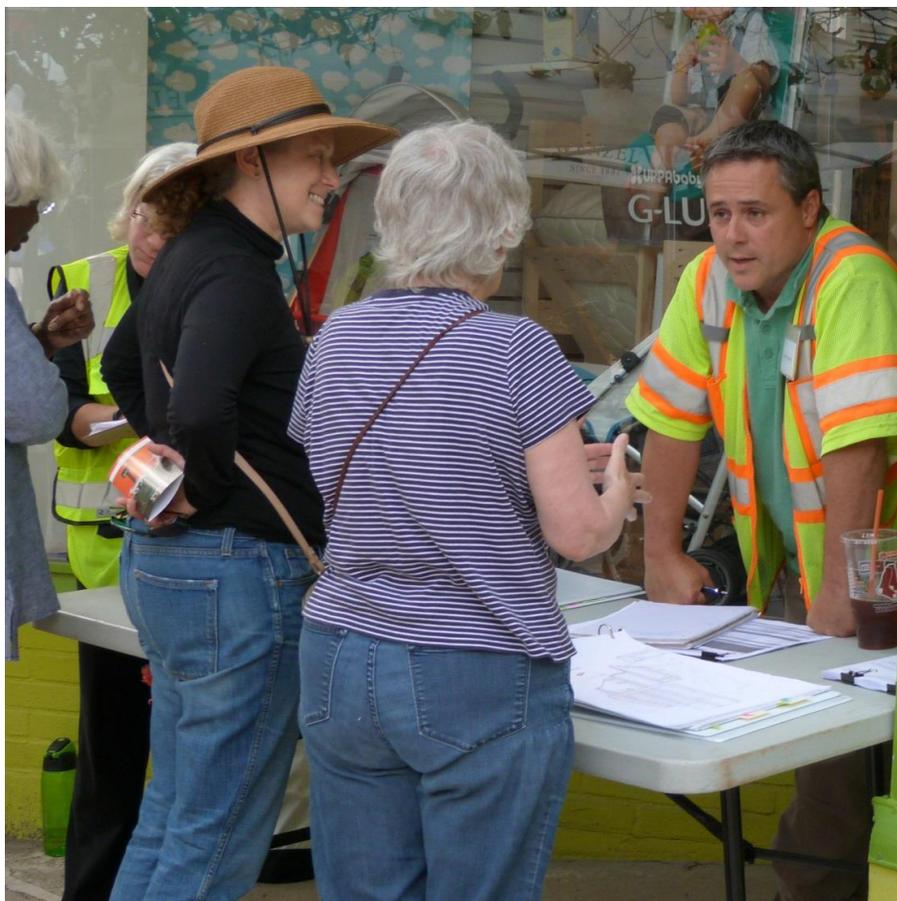
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# Design and Construction Community Meetings and Events



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# Western Avenue Infrastructure Improvements

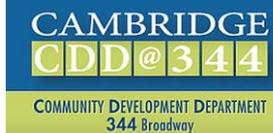


BEFORE

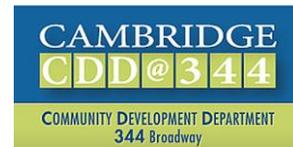
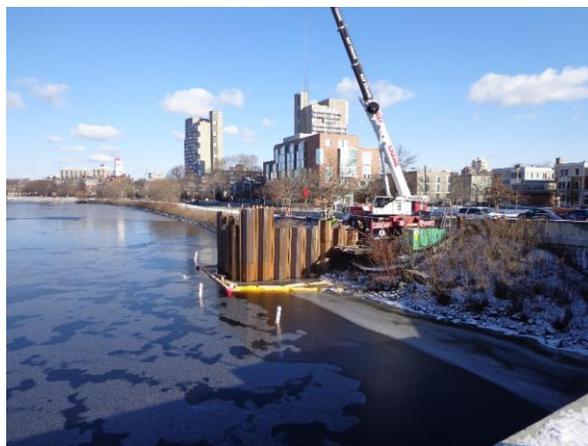


AFTER

Photo Credit: Nichol Figuelredo - [www.Capital-Strategic-Solutions.com](http://www.Capital-Strategic-Solutions.com)



# Western Avenue During Construction



# Western Avenue Project Completion



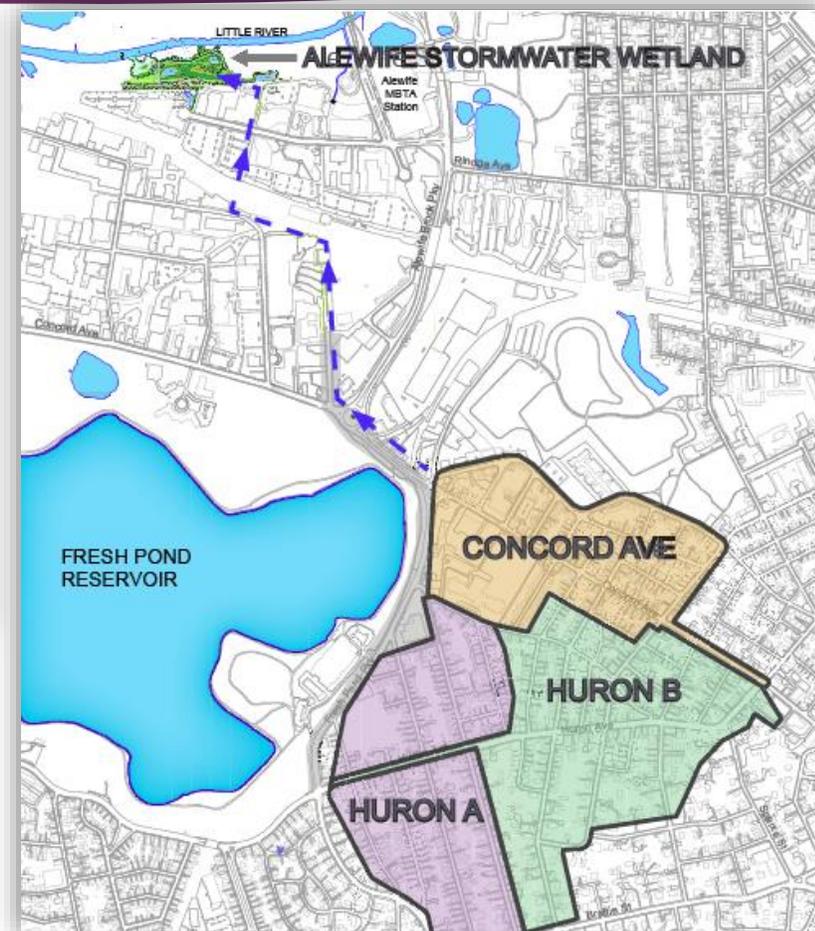
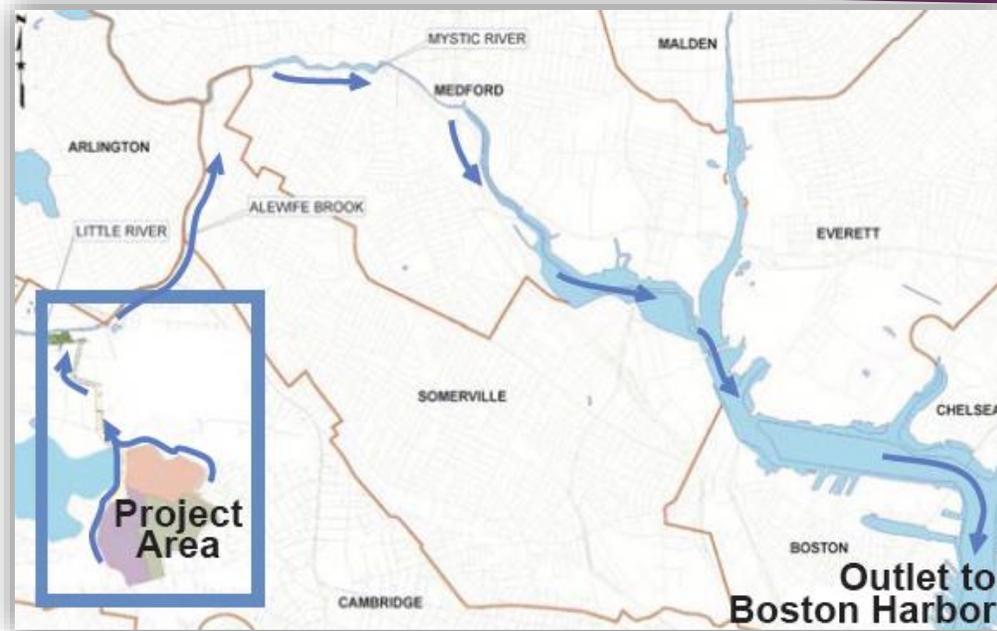
**WESTERN AVENUE –  
LOOKING WEST**



**CRONIN  
PARK**



# Alewife Sewer Separation Long-term CSO Control



# Alewife Sewer Separation Stormwater Wetland



# Alewife Sewer Separation During Construction



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# Alewife Sewer Separation Project Completion



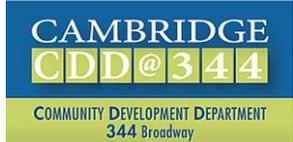
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# The Port Infrastructure Project Coming Soon



# Kendall Square Main Street



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# Chapter 90 Projects Broadway

Pre-Existing



Constructed



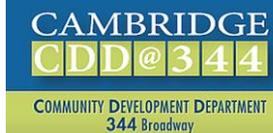
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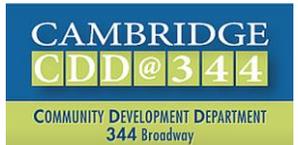


# Chapter 90 Projects Longfellow Road



# FIVE YEAR SIDEWALK AND STREET RECONSTRUCTION PLAN

From 1999-2014, Cambridge's records show that the number of crashes of all types in the city has decreased.



## 5 YEAR PLAN | TABLE OF CONTENTS

The Five Year Sidewalk and Street Reconstruction Plan identifies the streets and sidewalks that are anticipated to be reconstructed each year for the next five years. This document has been sorted into five sections as outlined below.



Pedestrian Safety



Bicycle Accommodations



Landscape Enhancements



Roadway Improvements



Accessibility Upgrades



# Five Year Sidewalk and Street Reconstruction Plan



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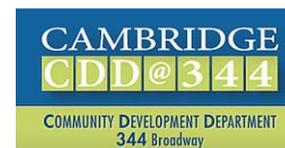
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From 1999-2014, Cambridge's records show that the number of crashes of all types in the city has decreased.

# Crash Database

- ▶ Sources
  - ▶ MassDOT/Mass RMV
  - ▶ Cambridge Police
- ▶ Query for crashes involving ped and bike
  - ▶ Pull individual reports to discover common causes of crashes at problem locations



# Bike Count and Crash Trend



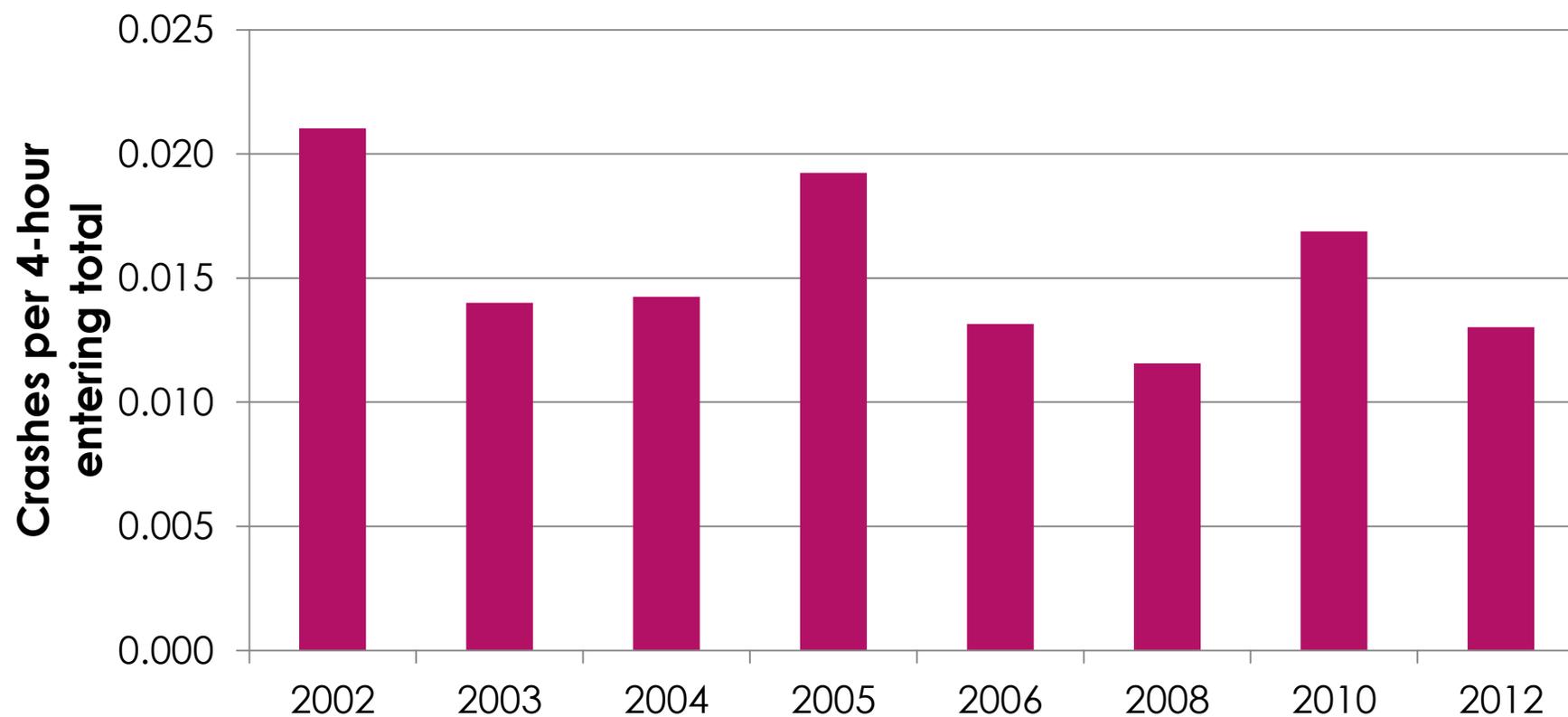
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# Crash Rate Trend



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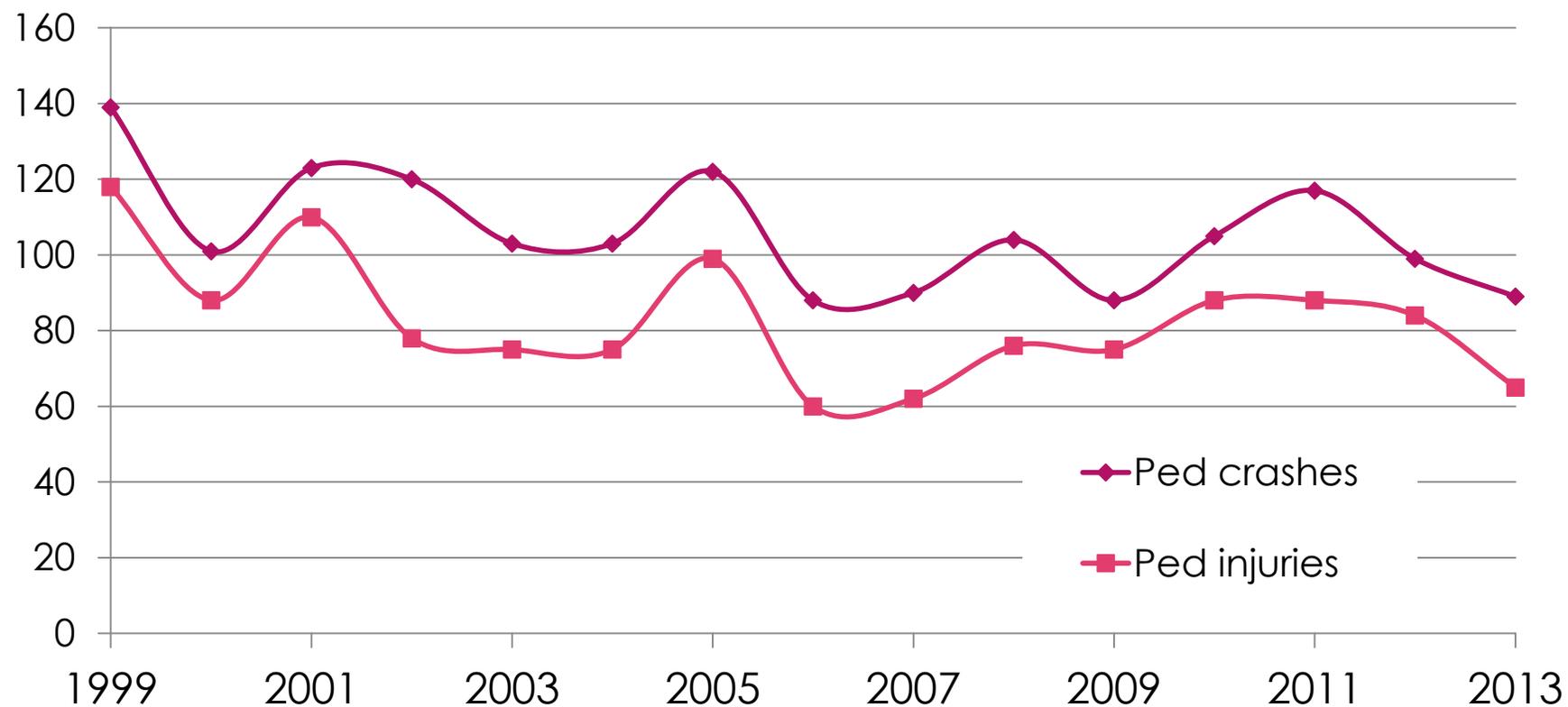
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# Pedestrian Crash Trends



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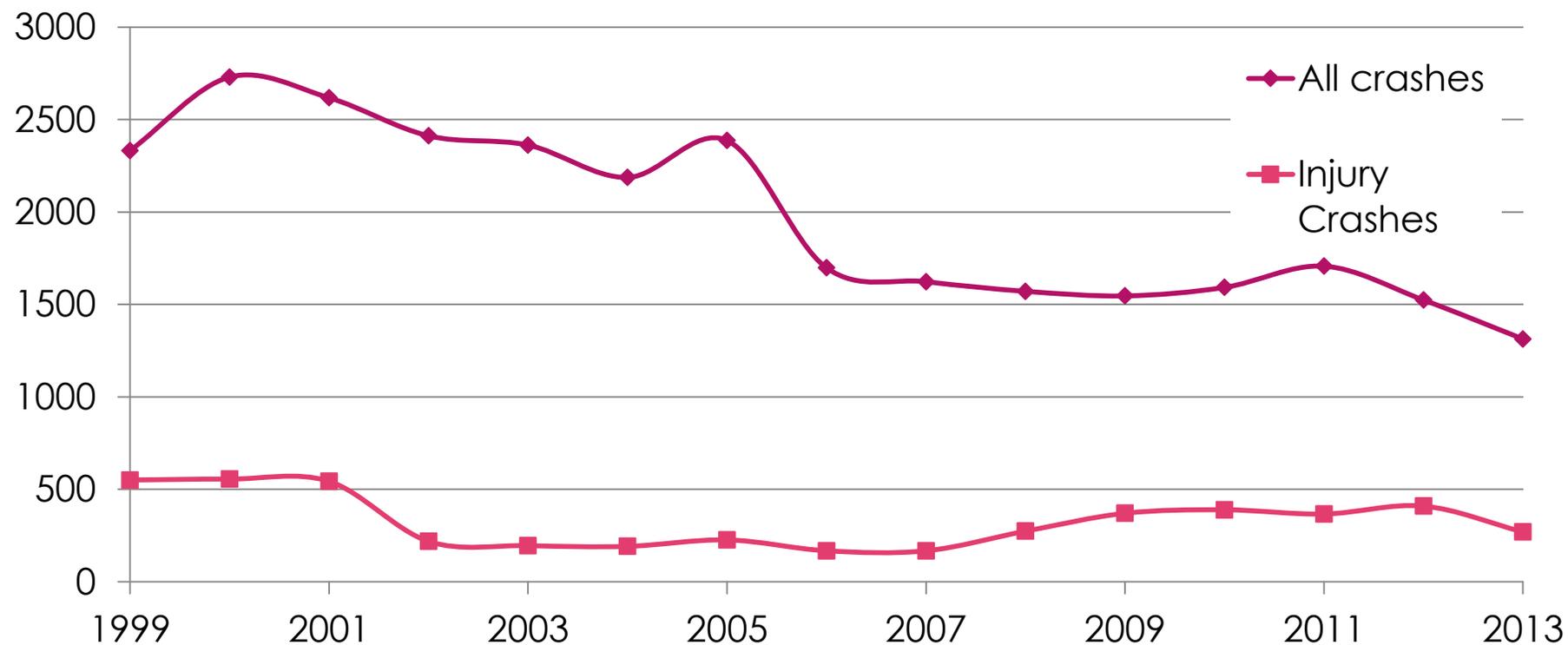
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# Total Crash Trends



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# Agenda

Local and regional approach to transportation

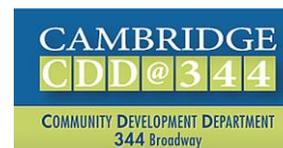
Cambridge transportation policies

Ongoing trends in transportation

Improving our infrastructure

**Direction of the Traffic, Parking, and Transportation Department**

How the transportation world is changing

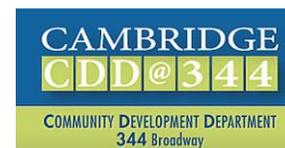


# Future Direction of Traffic, Parking, and Transportation

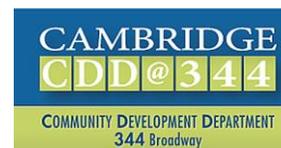
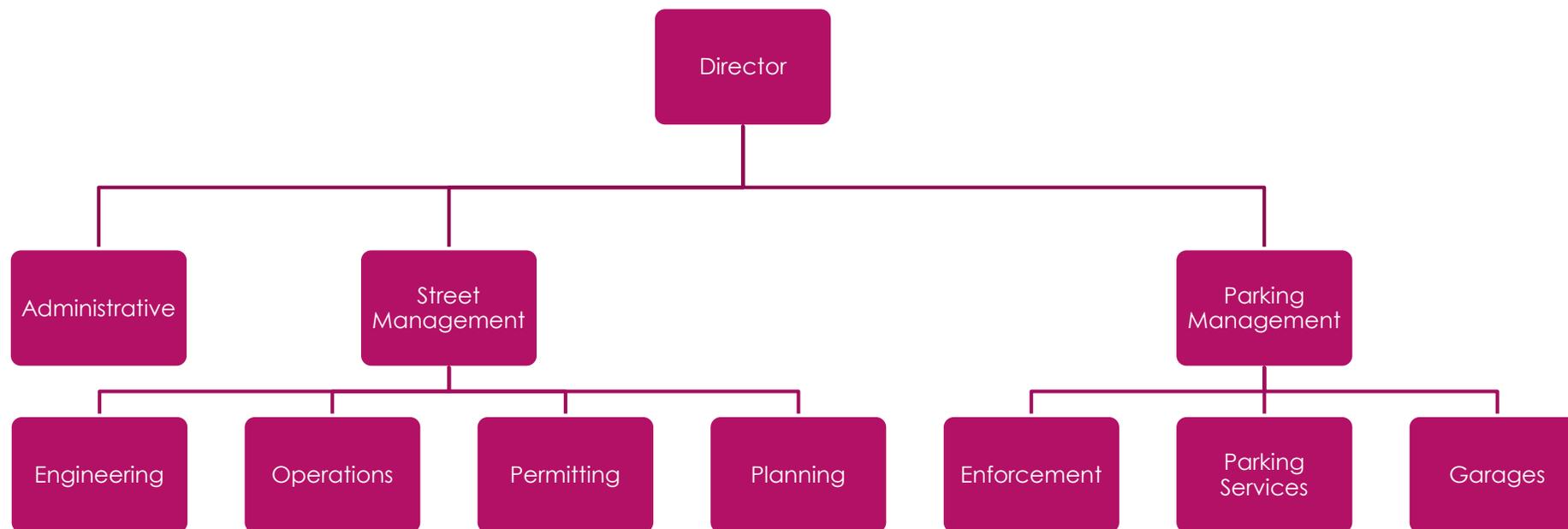
Organizational Changes

Strategic Priorities

Upcoming Initiatives

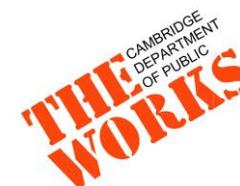
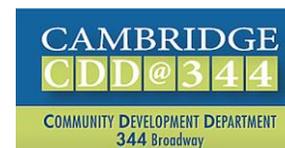


# TP&T Organizational Chart



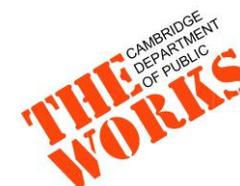
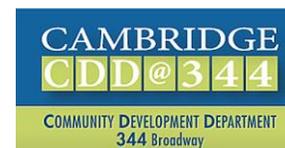
# Strategic Priorities

- ▶ Customer Service
  - ▶ New parking payment options
  - ▶ Permitting upgrades
  - ▶ Customer service training
- ▶ Technology
  - ▶ Smart meters/pay-by phone
  - ▶ Transit signal priority
  - ▶ Signal communications
- ▶ Operational Effectiveness
- ▶ Sustainability



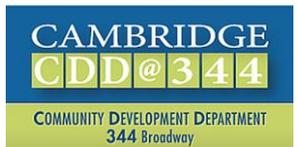
# Strategic Priorities

- ▶ Operational Effectiveness
  - ▶ Upgraded work order and asset management system
  - ▶ Enhanced snow operations
  - ▶ Staff training
- ▶ Sustainability
  - ▶ Garage initiatives
  - ▶ Materials/inventory management
  - ▶ Continue to offer high quality employment



# Upcoming Initiatives

- ▶ Pay-by-Phone
  - ▶ Pilot in Harvard Square area—Spring 2016
  - ▶ Expansion based on results of pilot implementation
- ▶ Pilot of Smart Meters
  - ▶ Schedule TBD
  - ▶ Need to understand costs and benefits vs. pay-by-phone
- ▶ Transit Signal Priority
  - ▶ Working on pilot with MBTA
  - ▶ Signal communication upgrades
- ▶ First Street Garage capital improvements



# Agenda

Local and regional approach to transportation

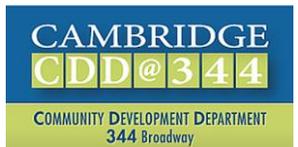
Cambridge transportation policies

Ongoing trends in transportation

Improving our infrastructure

Direction of the Traffic, Parking, and Transportation Department

**How the transportation world is changing**



# Focus on Safety



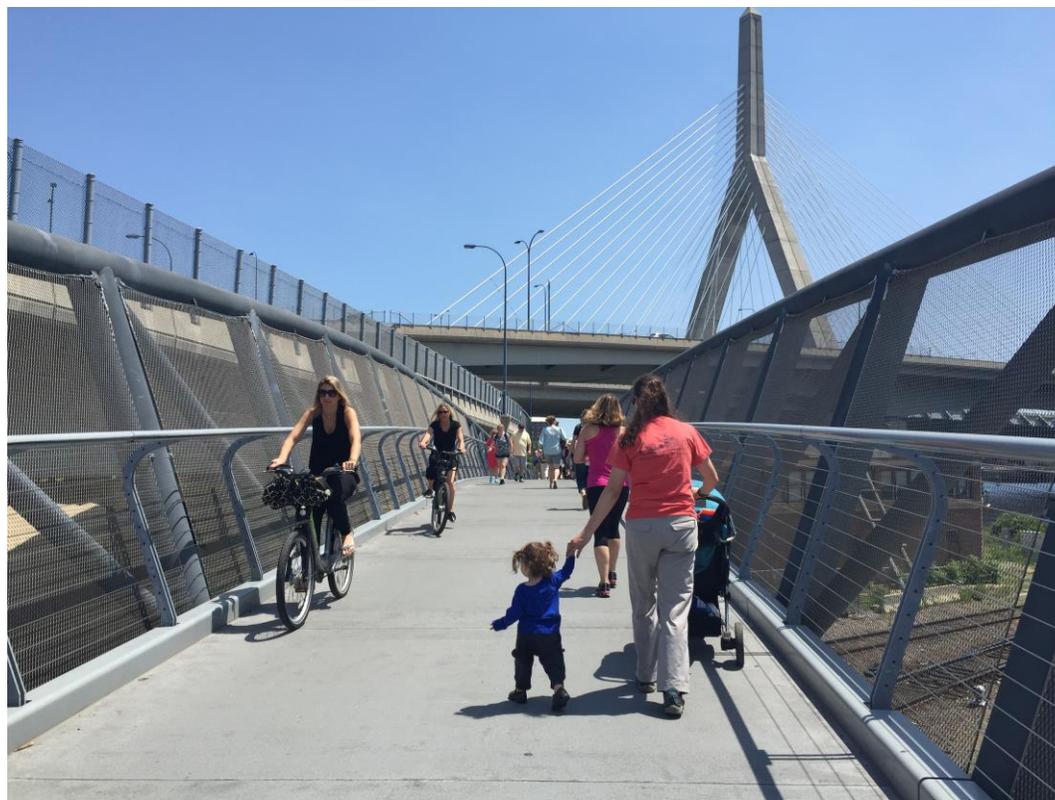
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# Healthy and Active Living



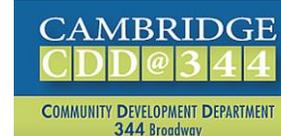
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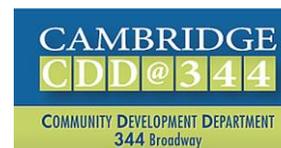


# Sharing Economy & Network Companies



# Looking Forward Goods Movement

- ▶ Local issues related to curb management, truck routing, and interaction with other modes
- ▶ Regional issues related to vehicle size, truck routing, and state/municipal coordination
- ▶ Requires regional partnerships with both the public and private sectors



# Looking Forward New Mobility Devices



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# Looking Forward Enhancing Transit

