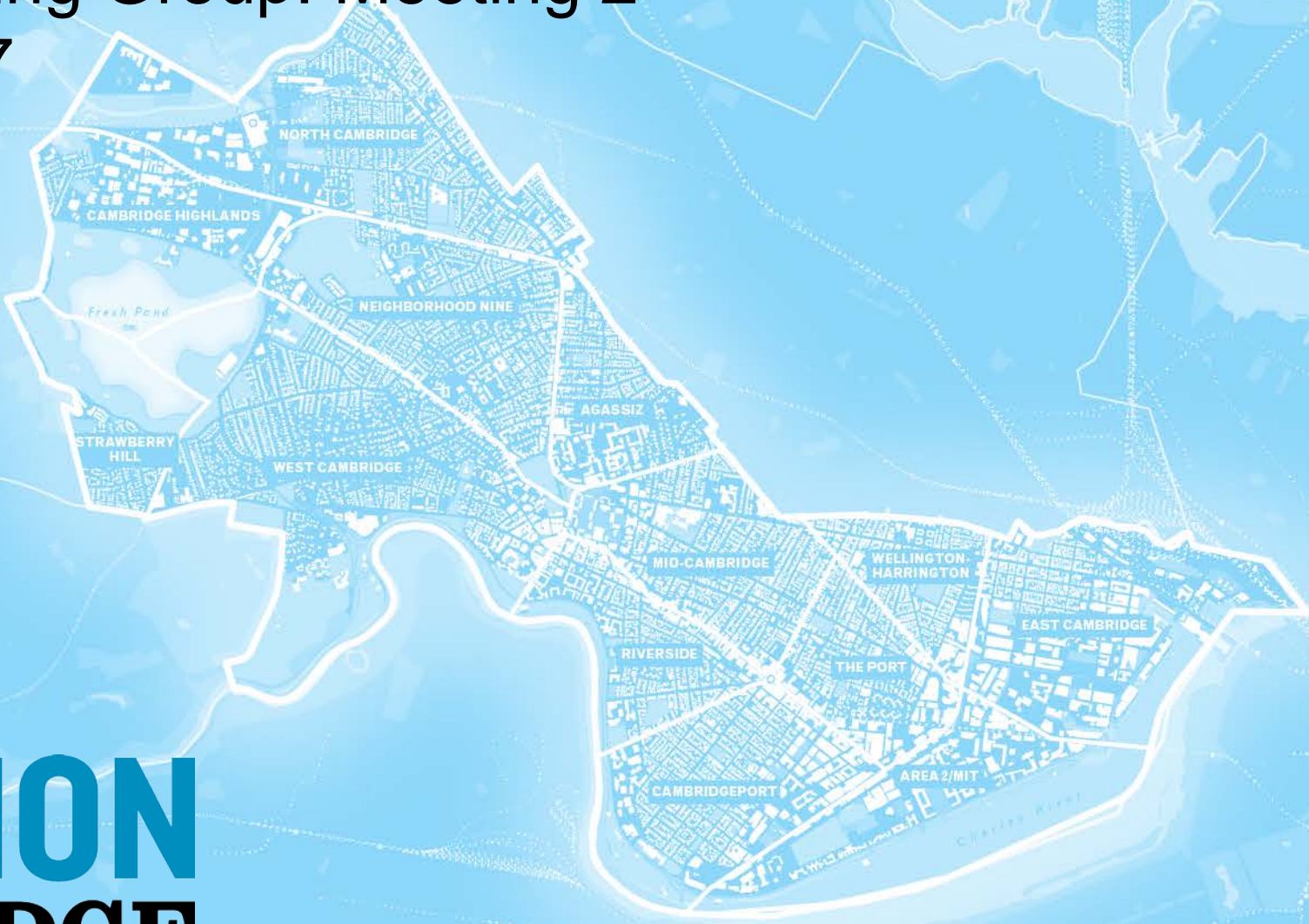


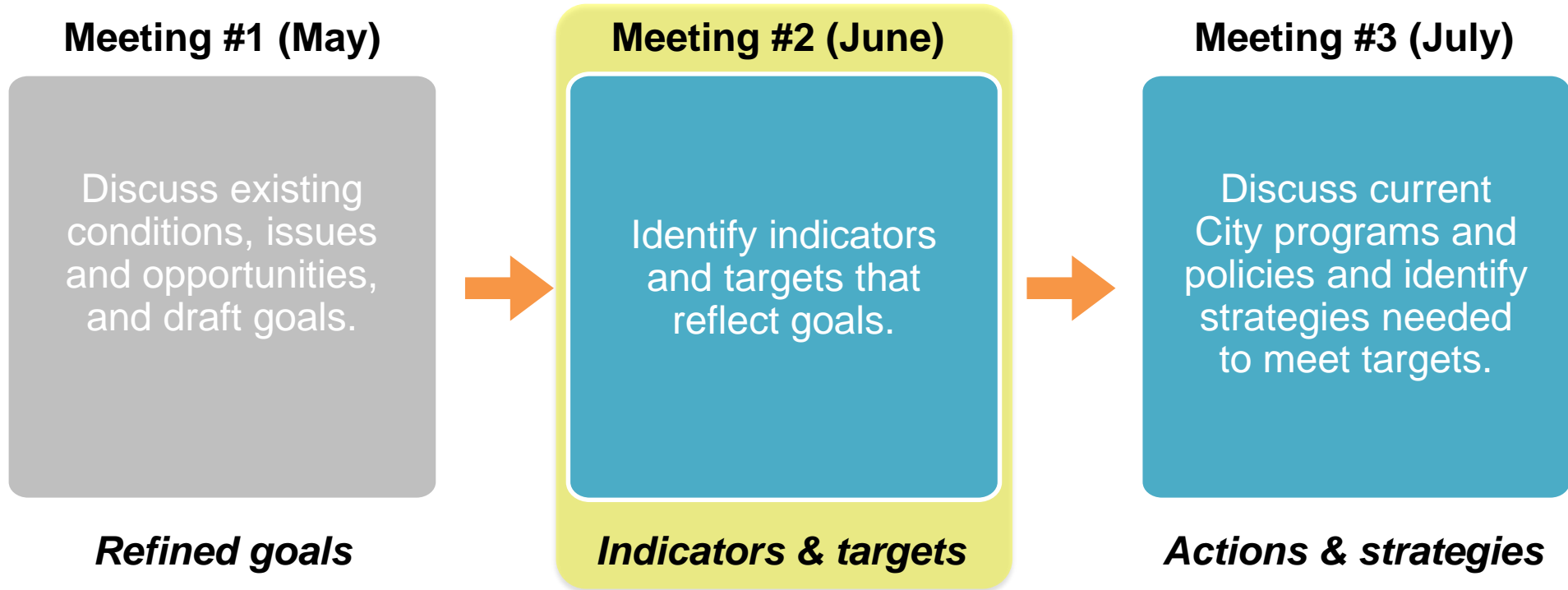
# Mobility Working Group: Meeting 2

## June 21, 2017

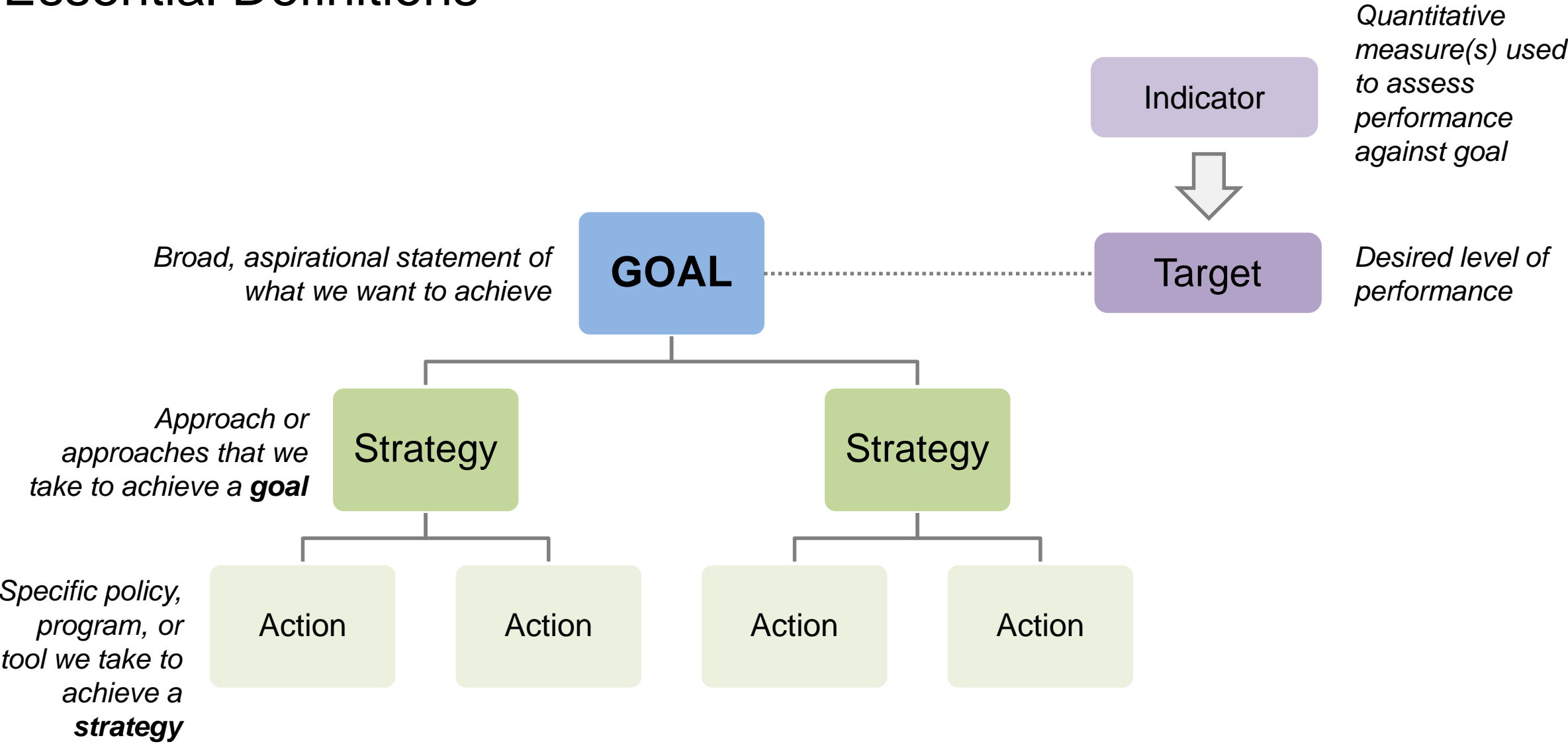


# ENVISION CAMBRIDGE

# Spring 2017 Working Group Schedule



# Essential Definitions



# Agenda

1. **Project Overview**
2. **Summary of Challenges** (5 min.)
3. **Revised Draft Goals** (15 min.)
4. **Review Existing City Indicators and Targets** (30 min. discussion)
5. **Develop Additional Indicators and Targets** (60 min. working session)
6. **Next Steps** (Working Group Meeting #3)

# Summary of Challenges



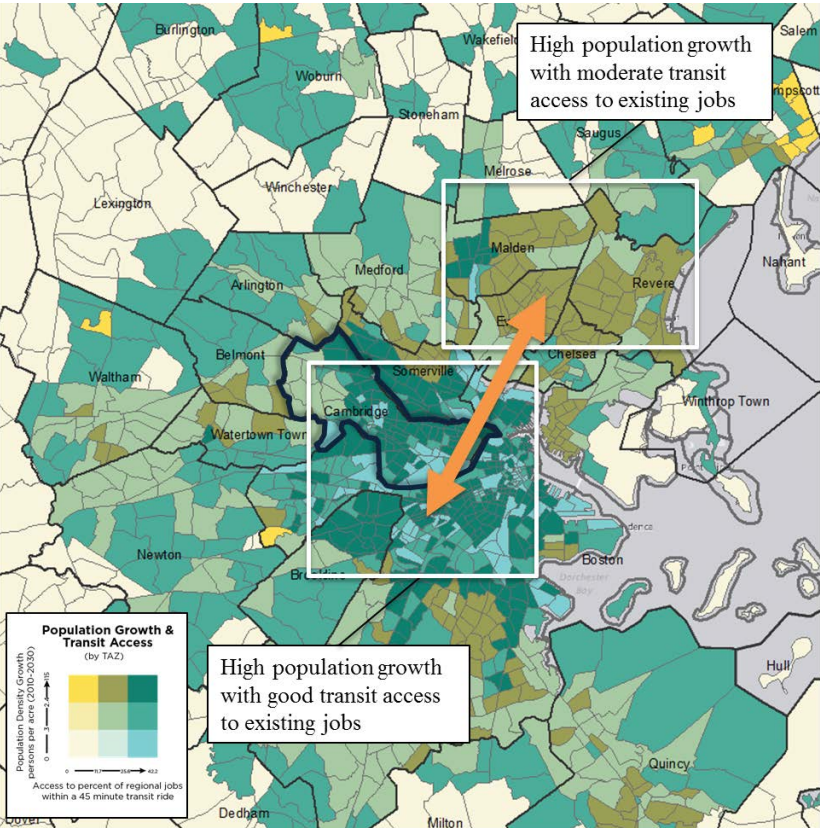


# Challenges

## 1. Regional Growth and Mode Share

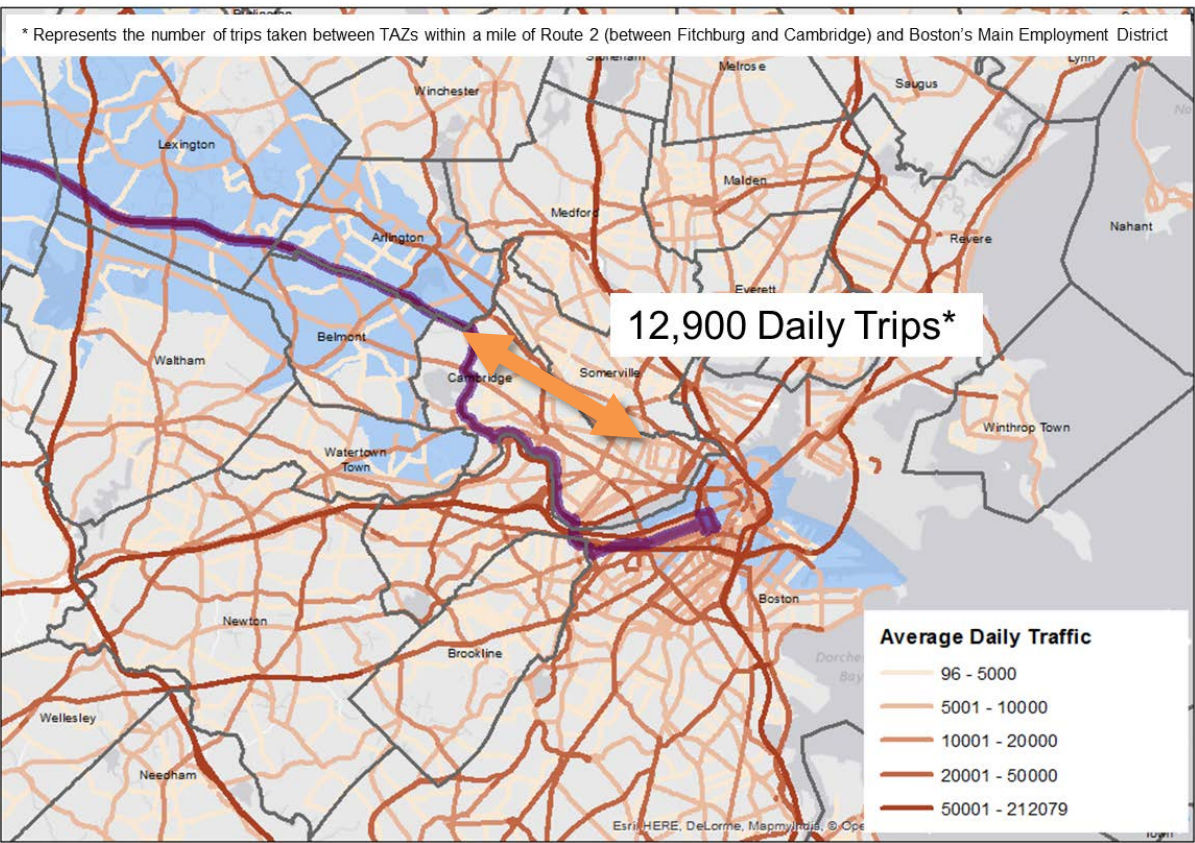
- Population growth in surrounding communities that have moderate to low transit access to jobs
- Vehicle traffic and congestion along major roads in Cambridge

Cross-regional demand is growing but cross-town transit is inadequate



Projected Population Growth 2010-2030 and Current access to percent of regional jobs within a 45 minute transit ride

Daily car traffic driving into Boston negatively impacts Cambridge



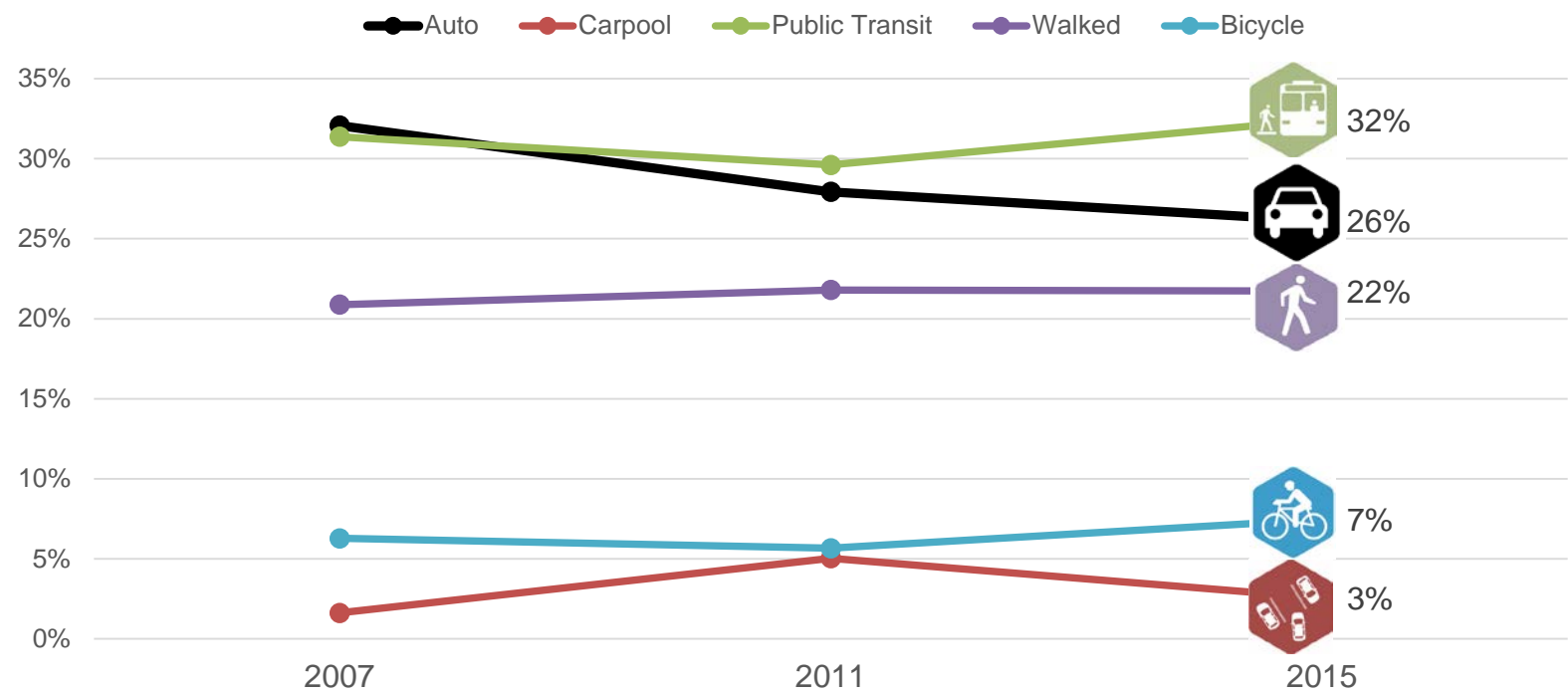
# Challenges

## 2. City-Wide Growth

- Traffic is impacting the character of neighborhoods
- City and regional growth will increase traffic if the percentage of vehicle trips does not decline faster

Cambridge's declining auto share is off-set by its growth, as well as growing regional demand

Cambridge Residents' Mode Share



Source: 2007, 2011, 2015 ACS 1-year estimates

Regional transit capacity is stretched



Regional biking capacity is insufficient





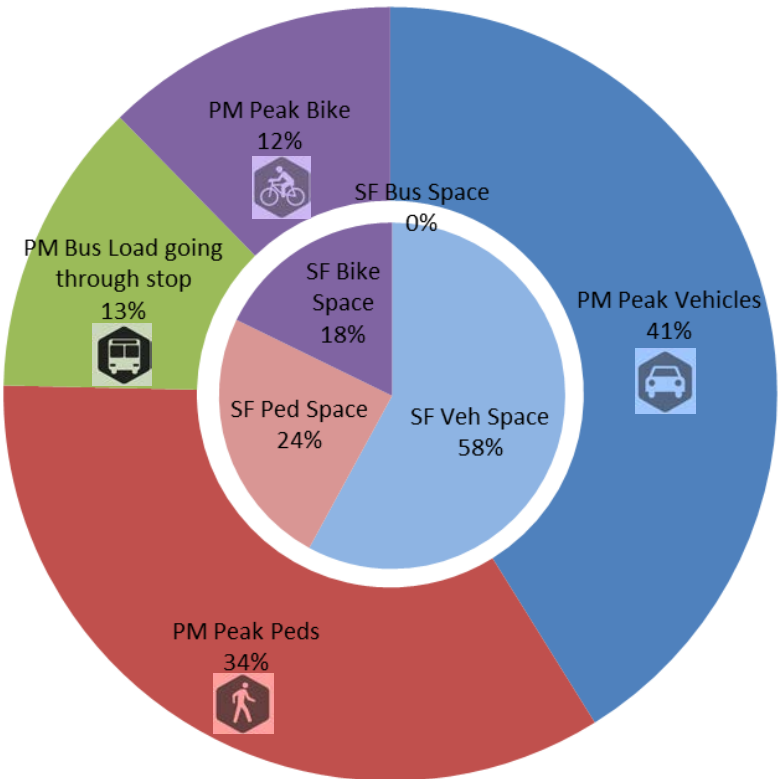
# Challenges

## 3. Transportation Inequities

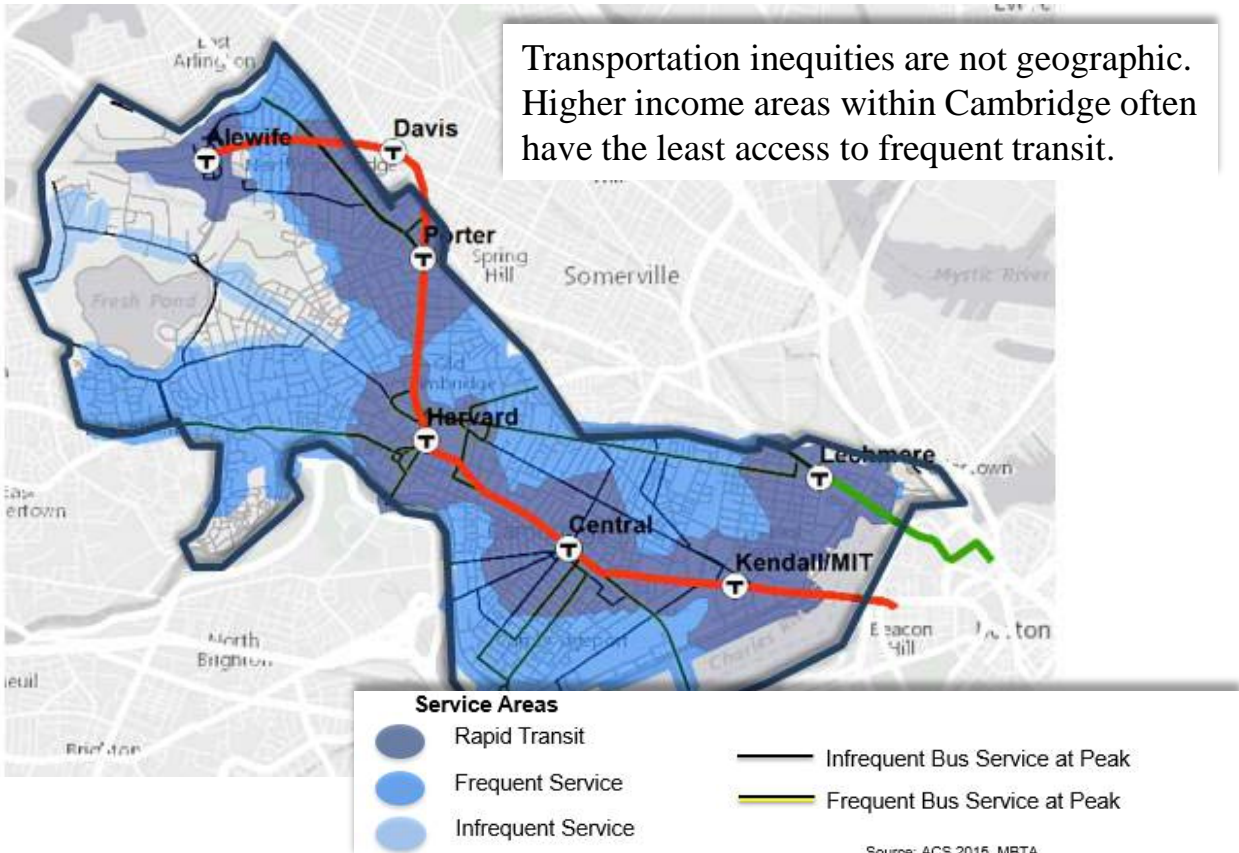
- Equitable distribution of street space based on number of users and their level of vulnerability
- Not everyone has good transit access

Street space is inequitably distributed

Main Street at Kendall Square PM Peak Volumes and Dedicated Street Space



Citywide transit quality and frequency





# Challenges

## 4. *Sustainable Transportation Infrastructure*

- State-owned transit and infrastructure is not under City control
- Narrow street widths make is challenging to accommodate all modes

The State continues to prioritize car travel on State-owned roads



Alewife Brook Parkway at Fresh Pond Mall

Historic narrow roads often prevent the MBTA from adding transit capacity

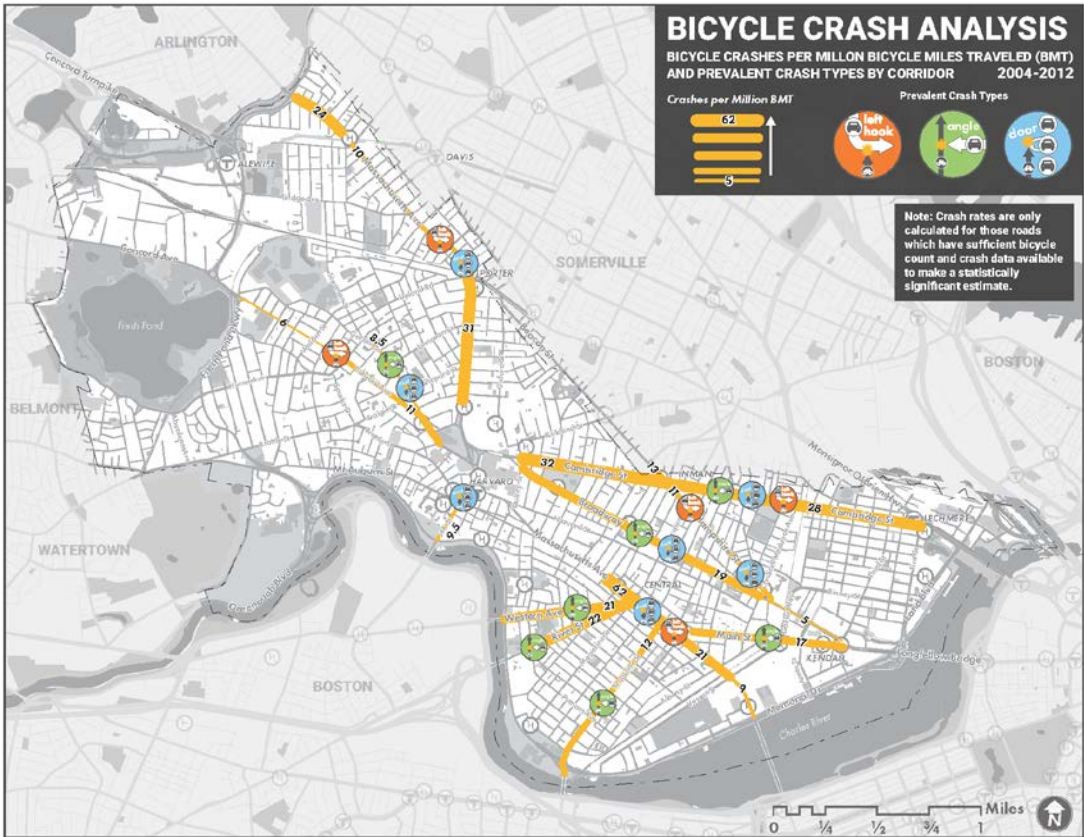


Rindge Avenue in North Cambridge

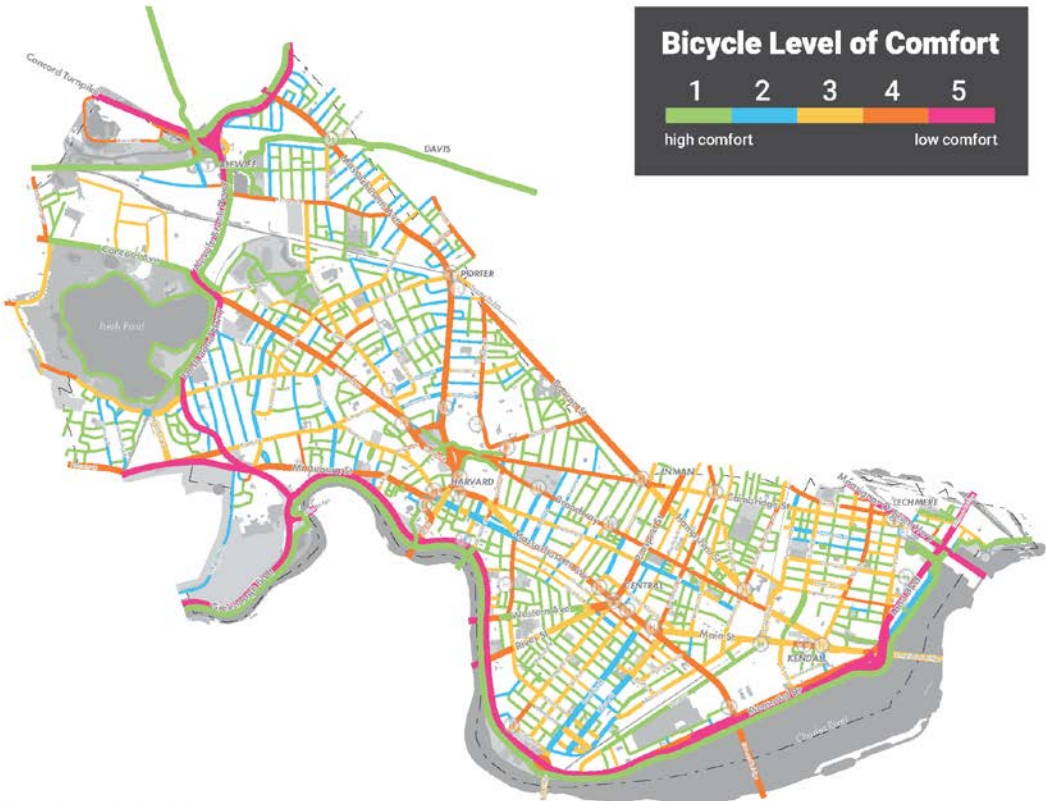
# Challenges

- 5. *Safety, Access, and Mobility*
  - Crashes remain a citywide concern
  - Wide range in level of comfort on City streets

Safety remains a necessary top priority



Many streets remain uncomfortable to walk or ride on



# Challenges

1. *Regional Growth and Mode Share*
  - Population growth in surrounding communities that have moderate to low transit access to jobs
  - Vehicle traffic and congestion along major roads in Cambridge
2. *City-Wide Growth*
  - Traffic is impacting the character of neighborhoods
  - City and regional growth will increase traffic if the percentage of vehicle trips does not decline faster
3. *Transportation Inequities*
  - Equitable distribution of street space based on number of users and their level of vulnerability
  - Not everyone has good transit access
4. *Sustainable Transportation Infrastructure*
  - State-owned transit and infrastructure is not under City control
  - Narrow street widths make is challenging to accommodate all modes
5. *Safety, Access, and Mobility*
  - Crashes remain a citywide concern
  - Wide range in level of comfort on City streets



# Revised Goals



<i>Original Draft Goals (from WG #1)</i>	<i>Edit Goals Based on Feedback from Working Group</i>
<b>Safety-</b> Eliminate all crashes and severe injuries, while increasing healthy, equitable mobility for all (Vision Zero)	<b>Safety and Health-</b> Reduce crashes, severe injuries, and fatalities, as well as pollution, noise, and stress factors to proactively encouraging physical activity, personal safety, and equitable mobility for all
<b>Accessibility-</b> Ensure that all residents, especially the elderly, disabled and people who do not drive, have access to a diverse set of travel options that meet their mobility needs.	<b>Accessibility and Connectivity-</b> Ensure that all residents, especially older adults, persons with disabilities, families, and people who do not drive, have access to a diverse set of travel options and infrastructure that is well-connected, continuous, and complete
<b>Equity-</b> Create a transportation system that is safe, comfortable, and convenient for people of all ages, abilities, and incomes.	<b>Equitable-</b> Create a transportation system that is safe, comfortable, and convenient for people of all ages, abilities, races, genders, and incomes, with emphasis on addressing underserved populations
<b>Climate change-</b> Eliminate greenhouse gas emissions and reduce use of single-occupancy private automobiles.	<b>Climate change-</b> Reduce greenhouse gas emissions, efficiently utilize fuel resources, and reduce use of single-occupancy private automobiles.
<b>Community Character-</b> Ensure that development results in a reduction of local, short-distance driving trips and supports walking, biking and transit-oriented mobility	<b>Community Character and Vitality-</b> Ensure that development emphasizes and supports walking, biking and transit-oriented mobility, while enhancing opportunities for placemaking and encouraging shared community spaces and building within Cambridge's neighborhoods
<b>Regionalism-</b> Work with neighboring communities, the MBTA, institutions, advocacy groups, and the private sector to enhance regional mobility by sustainable modes	<b>Regionalism-</b> Work with neighboring communities, the MBTA, institutions, advocacy groups, and the private sector to enhance regional mobility by sustainable modes
	<b>Reliability-</b> Reduce barriers and enhance the predictability, frequency, and convenience of transportation services that does not compromise the quality of service for other modes.
	<b>Efficiency-</b> Create flexible and shared infrastructure spaces for users of all modes while providing mobility options that optimize and integrate existing transportation infrastructure and services more efficiently
	<b>User Friendliness-</b> Integrate design, technology, and education opportunities in order to make walking, biking, and transit infrastructure and services appealing, seamless, and comfortable for all users
	<b>Prosperity-</b> Advance Cambridge as a proving ground for mobility innovation, while supporting city-wide economic development and assisting the existing local business economy

# Revised Goals

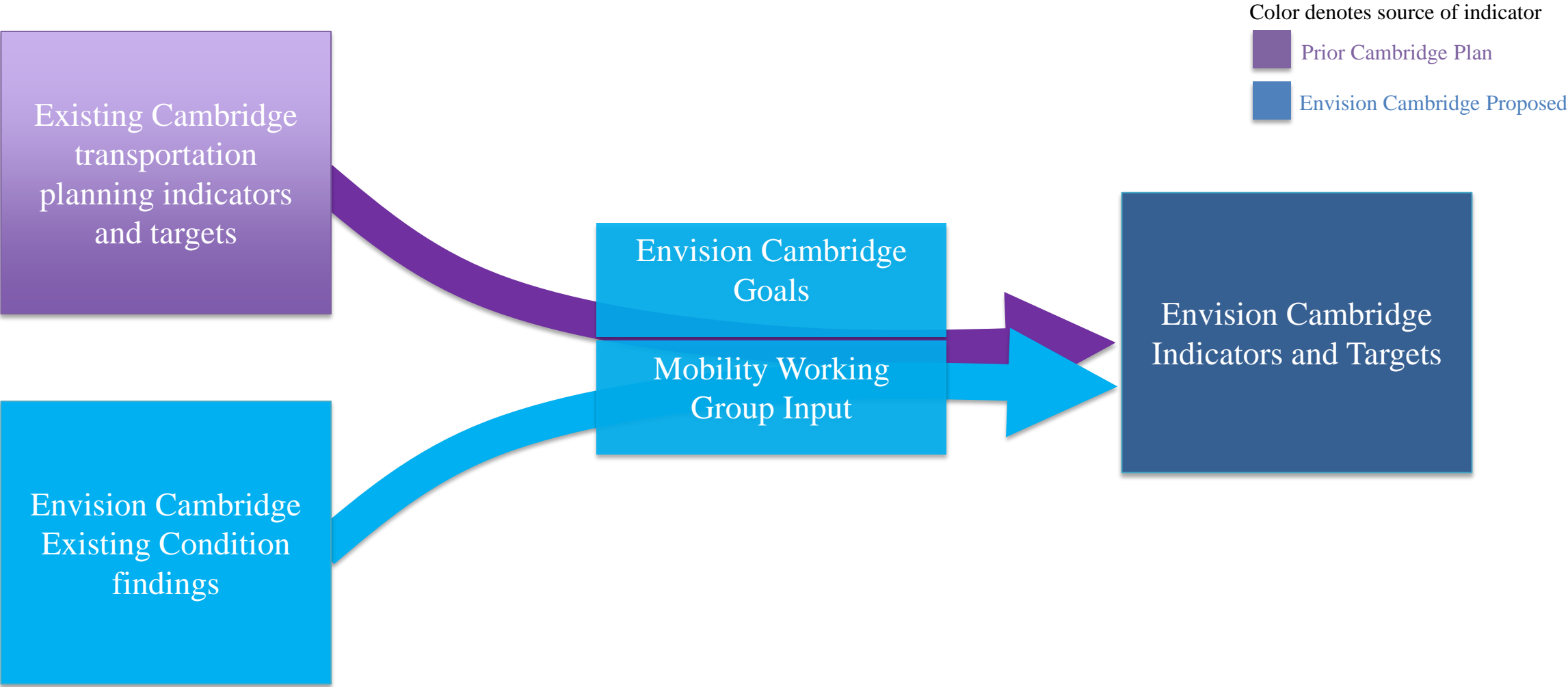
Goals by Topic Area	
<i>Safety and Active Transportation</i>	<b>Goal A:</b> Eliminate traffic fatalities and serious injuries, while encouraging active living and improving comfort for people of all ages and abilities
<i>Equity and Accessibility</i>	<b>Goal B:</b> Ensure that Cambridge residents of all ages and abilities have access to a diverse set of travel options that meet their mobility needs
<i>Reliability and Efficiency</i>	<b>Goal C:</b> Move more people by space-efficient modes, such as walking, biking, taking transit, and carpooling
<i>Community Character and Vitality</i>	<b>Goal D:</b> Ensure that the transportation system supports place-making and shared community spaces
<i>Connectedness and User Friendliness</i>	<b>Goal E:</b> Create an easy-to-understand, integrated, continuous, and comfortable transportation network
<i>Climate Resilience and Environmental Health</i>	<b>Goal F:</b> Achieve a carbon neutral transportation system and adapt to climate change that is already occurring



# Existing City-wide Indicators and Targets



# Process of Indicator Development



# Indicators and Target Exercise

- **Indicators Exercise**

1. Evaluate and prioritize existing indicators and their effectiveness in achieving goals
2. Create additional indicators that can be quantifiable or qualitatively measured now and in the future
3. Prioritize a list of 10 (ten) indicators (no more than 2-3 for each goal)

- **Targets Exercise**

1. Debate and finalize draft mobility targets. Group should consider both realistic and aspirational targets.
2. Establish one (1) clear target for each goal



Safety and Active Transportation

Goal A: Eliminate traffic fatalities and serious injuries, while encouraging active living and improving comfort for people of all ages and abilities

Existing Indicators	Y/N	Existing Targets	Y/N
Percent of Cambridge workers and Cambridge residents commuting by non-SOV mode (American Community Survey)		% of the Bicycle Network Plan implemented	
Percent of all trips made by bicycle (ET Goals and Objectives)		Improve Citywide Sidewalk Conditions Rating to X.X (at 13.8 in 2017, with 0 being best on a scale of 0-35)	
Number of students who walk or bike to school (Safe Routes to School Program)		Increase the Citywide number of students who walk or bike to school (30% in 2015)	
Number of fatalities and serious injuries for all modes (Vision Zero)			
Percent of streets that have reduced speed through traffic calming infrastructure (Traffic Calming Program)			
Percent of streets that are reconstructed or modified to implement the bicycle network plan (Cambridge Bicycle Plan)			
Sidewalk Conditions Rating (5 Year Sidewalk and Street Reconstruction Plan)			
Additional Indicators to Consider		Additional Targets to Consider	

Equity and Accessibility

Goal B. Ensure that Cambridge residents of all ages and abilities have access to a diverse set of travel options that meet their mobility needs

Existing Indicators	Y/N	Existing Targets	Y/N
Number of ADA compliant pedestrian ramps, accessible pedestrian signals, and accessible crossing island and medians (5 Year Sidewalk and Street Reconstruction Plan)			
Number of Cambridge residents who live within ¼ mile of a key bus route or transit stop (CDD E&T Goals and Objectives)			
Percent of Cambridge residents who live within ¼ mile of a Hubway stop (CDD E&T Goals and Objectives)			
Number of outreach programs for women and minorities (Bicycle Plan)			
Percent of minorities, women, and low-income persons who walk, bike, or take transit to work			
Number of underrepresented people enrolled in Hubway and MBTA Youth Pass Program			
Number of high frequency and reliable transit links between low-income residents and job centers			
Additional Indicators to Consider		Additional Targets to Consider	

**Reliability and Efficiency**

**Goal C.** Move more people by space-efficient modes, such as walking, biking, taking transit, and carpooling

Existing Indicators	Y/N	Existing Targets	Y/N
Bus travel times for at least 5 of the worst ranked higher ridership bus route segments (CDD E&T Goals and Objectives)		Bus travel times for at least 5 of the worst ranked higher ridership bus route segments are reduced by 5% compared to 2014.	
Number of cars registered per household rate (CDD E&T Goals and Objectives)		Decrease the citywide car ownership rate (0.87 per household in 2014)	
Number of City resident parking permits (CDD E&T Goals and Objectives)		Decrease the number of citywide resident parking permits (0.75 permits per household in 2016)	
Additional Indicators to Consider		Additional Targets to Consider	



Community Character and Vitality

Goal D. Ensure that the transportation system supports place-making and shared community spaces

Existing Indicators	Y/N	Existing Targets	Y/N
Number of trees shading the public way, including street trees, back-of-sidewalk trees, and trees planted in curb extensions (5-Year Sidewalk and Street Reconstruction Plan—not sure if this plan tracks back-of-sidewalk trees too)			
Percent of bus shelters and benches at bus stops that have been identified as priority locations (Transit Strategic Plan)			
Recorded traffic speed (Pedestrian Plan)			
Number of public spaces including public art, parklets, and play features			
Number of people engaged in staying activities (e.g. sitting in a parklet)			
Number of street closures for special events, such as block parties, citywide dance party, Sundays on Memorial Drive (TP&T)			
Additional Indicators to Consider		Additional Targets to Consider	

Connectedness and User-Friendliness

Goal E. Create an easy-to-understand, integrated, continuous, and comfortable transportation network

Existing Indicators	Y/N	Existing Targets	Y/N
Number of public buildings that are equipped with real time transit information (TransitScreen Pilot Program)		Increase the number of public buildings that are equipped with real time transit information (3 buildings in 2016)	
Percent of bus shelters and benches at bus stops that have been identified as priority locations (Transit Strategic Plan)			
Existence of wayfinding information (Transit Strategic Plan)			
Number of Hubway Stations			
Number of robust mobility hubs (key destinations in Bike Plan)			
Number of public bicycle parking spaces (Bicycle Parking Program)			
Additional Indicators to Consider		Additional Targets to Consider	

Climate Resilience and Environmental Health

Goal F. Achieve a carbon neutral transportation system and adapt to climate change that is already occurring

Existing Indicators	Y/N	Existing Targets	Y/N
Amount of greenhouse gas emissions associated with transportation (Cambridge Climate Protection Action Plan)		Increase the Citywide tree canopy coverage (30% of all land in Cambridge in 2009)	
Total VMT in Cambridge			
VMT traveled by Cambridge residents (State gives us VMT for cars principally housed in Cambridge)			
Percentage of alternative fuel vehicles as percent of total vehicles registered in Cambridge (CDD E&T Goals and Objectives)			
Number of fine particulates (PPM) (pollution sensors/movement counts)			
Percent of tree canopy coverage			
Number of out-of-service transit days due to climate change effects (MBTA Dashboard)			
Additional Indicators to Consider		Additional Targets to Consider	

# Indicators and Target Exercise

- **Indicators Exercise**

1. Evaluate and prioritize existing indicators and their effectiveness in achieving goals
2. Create additional indicators that can be quantifiable or qualitatively measured now and in the future
3. Prioritize a list of 10 (ten) indicators (no more than 2-3 for each goal)

- **Targets Exercise**

1. Debate and finalize draft mobility targets. Group should consider both realistic and aspirational targets.
2. Establish one (1) clear target for each goal



# Next Steps

- Summarize Indicators & Targets
- Review of Existing City Policies and Programs
  - Homework Assignment: Please review Program and Policy Template
- Develop Strategies