Evaluation Framework for Net Zero Transportation Plan Draft Strategies—City of Cambridge

What is the purpose of this framework? This tool is a place to document what we think is important for the Net Zero Transportation Plan (NZTP) to do. Naming what we want will help us look at potential Net Zero Transportation Plan strategies and measure them against each of these qualities to judge if they are a valuable contribution to the Plan goals of eliminating greenhouse gas (GHG) emissions from transportation in Cambridge and creating a better, more equitable transportation system. This is a work in progress, based on the Advisory Group's feedback, and we want your help to improve it!

Qualities	How will we know we're getting there?	Notes / Advisory Group comments/guidance
Goal #1: Improve mobility		
Reliability	• <u>People traveling in Cambridge can count on consistent and predictable travel times</u> (qualitatively measured on Likert scale) (from Greenlining Institute)	• Make transportation predictable, reliable, available to everyone • Unreliable transportation is harder for people who are already marginalized
Mode availability	• <u>More residents live close to a range of travel options</u> For example, how many residents: • live within a half-mile walking to a subway station • live within a quarter mile walking to a high-frequency bus route stop • live 0.125 miles walking distance to a Bluebikes bikeshare dock • live a quarter mile walking distance to a bicycle facility with a bicycle level of comfort of 1 or 2 (as defined by CDD) • live 150 feet walking distance to a pedestrian crossing • How many roads and paths are rated for Bicycle Level of Comfort 1 or 2 out of 5 (all quantitatively measured via Replica)	• Give people many good options to get where they need to go.
Accessibility	• <u>Transportation modes are accessible</u> to people with disabilities, accessible to people from various cultures and languages, accessible without the need for banking or a smartphone (from GLI) (qualitatively measured on Likert scale)	• Ensure transportation system is accessible for everyone (e.g., people with disabilities, immigrants, people with lower English proficiency, etc.)

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Affordability	• <u>Transportation costs decrease for people traveling in Cambridge. There are more low-cost transportation options and subsidies easily available, especially for people with low incomes.</u> o This metric will vary by transportation mode and location, and therefore should be set by the community; a recommended default is that households should spend no more than 20% of budgets on transportation costs (from GLI). Some data sources combine transportation costs with housing costs.	• Reduce costs of transportation (e.g., Charlie Cards that are free or free for those with demonstrated low income)
Connectivity (Connectivity to Places of Employment, Education, Services, & Recreation)	• <u>More households are within walking distance to services and places they spend time</u> o This access is balanced across race and income For example: • Number of households within 30-minute transit ride or 20-minute auto ride of employment center, etc[42] Number of transit transfers needed, time spent traveling. (from GLI) all quantitatively measured via Replica)	• Improve options for people in different neighborhoods to get around Cambridge
Safety (also contributes to goal 4)	• <u>Fewer fatalities and serious injuries</u> (calls for service with EMS transport) caused by transportation crashes • <u>Decrease in interpersonal violence</u> while moving around Cambridge (harassment, profiling, etc.) (from GLI)	• Make people feel safer and more comfortable traveling by bike, bus, train, ride-hail, and on foot.
Goal #2: Remove GHG emissions from transportation		
Reduce GHG	• Developed in model using outputs from CAPCOA	• From City mandate
Reduce air and noise pollution	• Overall impact to quantities of localized air pollutants (PM, NOx) and noise (qualitatively measured on Likert scale) ,[40]	• From Greenlining Institute
General positive health benefits	• Increase levels of physical activity in safe environments (qualitatively measured on Likert scale)	•
Reduce VMT	• Compact development and greater clustering of destinations, VMT per capita (from GLI) (quantitatively measured via Replica)	• From Greenlining Institute

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Goal #3: Facilitate a just transition (distribute responsibilities and benefits to redress historic social and economic inequities)		
Quality of life	• <u>Improvements to the transportation system make it easier and more enjoyable for people to live in Cambridge</u>, especially for those from underserved, unheard, and historically excluded groups	
Racial and economic inclusivity (also contributes to goal #4)	• <u>Improvements in the transportation system make Cambridge a more viable place to live</u> for people of different racial/ethnic identities and income levels	
Equitable allocation of responsibility	• <u>Responsibility is distributed equitably and takes into consideration what privileges</u> community members have and what ways they are marginalized - in addition to ways institutions have benefitted from and are responsible for climate change	Larger institutions that have built wealth and made climate change worse should take more responsibility for reducing emissions
Investment in historically marginalized neighborhoods and communities	• <u>Groups that have been underserved, unheard, and historically excluded receive greater investments</u> in transportation improvements and benefits	This relates to rethinking the PTMD ordinance, parking study findings etc., which tell us we need to be careful of relying on leveraging private investment as a primary strategy, because it can magnify existing inequalities.
Goal #4: Strengthen community and connectedness		
Community agency	• People have agency to make sustainable transportation choices • People are not shamed or blamed for how they move around	
Community involvement	• Members of the community (businesses, residents, etc.) can participate in improving the transportation system and have choices in what channels to use to do so • Members can see how their input is integrated in the planning process	
Safety & belonging (also contributes to goal 1)	• Improvements in the transportation system make people feel safer as they move around the city • Improvements in the transportation system make people feel more like they belong as they move around the city	