7c Transportation Demand Management Plan Update Attachment 1





Bellevue Transportation Demand Management Plan 2024-2033

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Executive Summary

What is TDM?

Transportation Demand Management (TDM) is a specialization within transportation planning that focuses on achieving more efficient use of transportation infrastructure. Strategies include promoting and incentivizing use of carpooling, vanpooling, transit, walking, biking, teleworking, and flexible work hours.

Since the mid-1980s, the City of Bellevue has been engaged in TDM activities to encourage and incentivize Bellevue workers and residents to choose modes of transportation other than solo driving. The city works with employers, property managers, students, other government agencies and the public to provide informational resources and incentives to encourage the use of non-drive-alone modes This work is done to help preserve mobility and accessibility in a growing city, and to support the city's goal of reducing greenhouse gas (GHG) emissions 50% by 2030 and 80% by 2050, as stated in the city's Environmental Stewardship Plan.

Regulatory Components of Bellevue TDM

In 1993, Washington State's Commute Trip Reduction (CTR) law (per revised code of Washington 70A.15.4020, and Bellevue city code 14.40) was implemented, requiring most employers with worksites of 100 or more employees to develop transportation programs to reduce drive-alone commute trips. Implementing CTR programs has included the provision of incentives such as free/reduced fare transit passes, carpool/vanpool subsidies, and providing amenities like bicycle parking, lockers, and showers, or simply allowing the use of pre-tax dollars for commute expenses. Additionally, CTR-affected companies are required to conduct measurement and report on program progress.

The city also requires new large real estate developments to create and maintain Transportation Management Programs (TMPs) to mitigate transportation impacts the development will produce based on the development's size and designated land use. This is a requirement of Bellevue city code section 14.60.070 and previous code requirements or conditions of the development. The city's TMP Implementation Guidelines describe procedures for establishing TMP agreements at new buildings as well as protocols for ongoing monitoring of building compliance and performance, including situations where TMP building requirements and CTR employer requirements may overlap.

2024-2033 TDM Plan History and Current Context

In 2015, the city completed the first citywide Bellevue TDM Plan, which laid out six categories of strategies that were implemented to increase the use of modes other than solo driving between 2015 and 2023. Through requirement-based programs; subsidies and discounts; education and assistance; incentives and rewards; marketing and promotions; and ongoing research, planning, and coordination, Bellevue TDM worked to shift more residents and workers to nondrive alone options. This plan update incorporates these strategies, builds on them, and identifies new strategies.

Late in the previous TDM Plan period, the COVID-19 pandemic hit, drastically changing for many people how they live, work, and commute. At the onset of the pandemic, commute trip drive-alone rates increased, and transit ridership plummeted because of the state governor's "Stay Home, Stay Healthy" order closing non-essential businesses, and a resulting increase in teleworking. Since then, more people are returning to in-person work, vehicle miles traveled have ratcheted back up almost to pre-pandemic levels, transit ridership has not fully recovered, and the future of office spaces and teleworking is still unknown. Therefore, TDM practitioners must address a new set of issues to help reduce drive-alone rates to preserve mobility and help reduce greenhouse gas emissions.

While these profound changes in travel patterns are occurring, the city's non-drive-alone options are expanding and improving, presenting a unique opportunity to influence how people move throughout the city. From the recent opening of the first phase of East Link light rail (2 Line) service, to Sound Transit's Stride bus rapid transit service, to the I-405 express toll lanes, the Eastrail multi-use corridor, to Bellevue's bike infrastructure and Grand Connection pedestrian corridor initiatives, there will be a host of new options that will support increases in non-drive-alone travel. Bellevue TDM will educate and encourage city travelers to use these exciting new transportation options-resetting the way Bellevueites travel into more efficient and environmentally sustainable ways.

For the updated plan, Bellevue TDM has analyzed historical and recent program data, gathered updated data, calculated new non-drive-alone targets, researched demographic trends, conducted and analyzed multiple surveys, researched market and industry best practices, and identified trends that will impact the next decade of citywide TDM actions.

From the current demographic findings, several data points illustrate that Bellevue's population is aging, becoming more diverse, earning higher incomes, and is spending more on housing and transportation costs. A majority of jobs and multi-family homes are located within high-frequency transit networks where Bellevue TDM can focus multiple outreach efforts. In addition, Bellevue has many large corporations and small businesses, with the services and accommodations job sector being the largest citywide where Bellevue TDM should be prioritizing strategies and outreach efforts. The demographic findings as well as insights gained from the surveys, market and industry best practices research, and identified trends have been analyzed and considered in the development of the plan's updated strategies.

Key findings from the surveys include: (See Chapter 4 for more information on survey results and best practices)

- Over half of the 2044 Comprehensive Plan Survey respondents never use public transit largely due to it being slow and inconvenient (statistically valid survey).
- From the 2022 City Budget Survey, traffic and public transportation were the sixth and seventh biggest problems for Bellevue residents, respectively. Respondents want improved transportation and related services to ensure transportation is reliable and predictable (statistically valid survey).
- Informational barriers and misunderstandings persist regarding non-drive-alone options, but there is a willingness to try non-drivealone modes if the options are convenient and easy to use according to the qualitative 2017 Transportation Demand Management Attitudinal Research Study.
- Over half of respondents (51%) from the 2022-2023 Non-Scientific Community Input Survey (Appendix II) drive alone to work compared to just 16.2% who use transit. Furthermore, 55.9% of respondents drive-alone for non-commute trips compared to just 10.2% who use transit.
 - » The top three reasons why respondents choose driving alone is that it saves time, there are no reasonable transit options, and they need to run errands before/after work or school. The respondents indicated that they would choose non-drive-alone modes if there were more frequent and convenient bus service and if there were faster ways to make non-drive-alone trips.

Key Findings from Best Practice Literature Review (Appendix I):

This involved a review of research from around the country. Focus areas include COVID-19, equity, sustainable transportation, parking, housing and traffic safety. Below are selected highlights most relevant to the 2024-2033 TDM Plan.

- Vehicle miles traveled (VMT) are returning to almost pre-pandemic levels.
- Generally, teleworkers produce high levels of CO2 due to increased non-commute trips during the weekday.
- Transportation equity must be at the forefront of all planning and policy decisions.
- Car dependency is a driver of societal inequities.
- Walking and biking are the transportation modes that generate the fewest CO2 emissions.
- E-bikes and shared micromobility lead to reduced vehicle emissions.
- Parking strategies are the single most effective TDM tool.
- Housing and transportation costs together now make up over 50% of national household spending.

Equity:

At the forefront of all city TDM actions is the consideration of equity to ensure that historically marginalized groups are engaged and benefit from the implementation of TDM strategies. To fulfill the traveling needs of all who work, live, and play in Bellevue, Bellevue TDM's aim is to:

- prioritize equitable distribution of TDM programming, incentives, and assistance;
- ensure that all marketing, outreach, and education efforts reach marginalized groups; and
- continue to maintain and promote an accessible Choose Your Way Bellevue resource platform that reaches those with limited English proficiency, the disability community, low-income residents and workers and other historically marginalized populations.

This process led to the creation of the plan's updated vision and goals and the strategies aimed at achieving the stated goals.

Vision & Goals for the 2024-2033 TDM Plan

A city in which travelers are well-aware of and consistently use modes of transportation that are convenient, timely, affordable, and good for the environment, supporting the city's growth by helping to minimize added congestion thereby preserving mobility.

- **GOAL 1:** Increase awareness and usage of non-drive-alone travel options in Bellevue as normal, commonplace ways to get around for commuting and other trips.
- **<u>GOAL 2</u>**: Create an environment for workers, residents and the general public that is increasingly supportive of non-drive-alone travel options.
- **<u>GOAL 3:</u>** Increase transportation system efficiency and preserve mobility as Bellevue's residential and worker populations grow.
- **<u>GOAL 4:</u>** Improve transportation access to employment, education, health care, and other essential goods and services for city residents and workers through increased viability of multiple travel options.
- **GOAL 5:** Develop TDM programming that meets the traveling needs of marginalized populations.

Targets & Measurements:

The TDM Plan's measurements quantify percent of commute trips by non-drive-alone modes, which is measured using census (American Community Survey 5-year results) and outcomes of various Bellevue TDM activities, which include marketing, engagement, education, and assistance to encourage use of non-drive-alone modes. Large employer mode share results are obtained through biennial

2015-2023 TDM targets and results:

2015-2023 TDM Plan Commute Trip Nor

Citywide Residents

Citywide workers

Downtown Workers

Table 0.1: 2015-2023 TDM Plan Commute Trip Non-Drive-Alone Mode Share Targets and Actuals

2015-2019 CTR Non-Drive-Alone and Vehicle Miles Traveled (VMT) **Targets and Outcomes*:**

2015-2019 CTR F

Commute Trip Non-Drive-Alone Mode SI

Vehicle Miles Traveled

Table 0.2: 2015-2019 CTR Plan Targets and Actuals

***CTR Targets –** The most recent 2015-2019 Bellevue CTR Plan was adopted in 2015, and that plan and its targets have been extended by the Washington State Department of Transportation through 2025. The CTR Plan update will be adopted by the City Council in 2025 and will include new targets for 2029-2030. The CTR plan and target time frames correlate with the state biennium, which means the upcoming CTR Plan update will cover from July 1, 2025 to June 30, 2029.

**There is a severe lag time in availability of the downtown worker "actual" figure. The most current figure available is the average across 2011-2016, largely prior to the start of the very plan it is measuring. Bellevue TDM anticipates amending this plan once the next figure, anticipated to be the average across 2017-2021, when it is available.

surveys of large employers through the Commute Trip Reduction program, in which employees at large worksites, generally those with 100+ employees, are asked which mode of transportation they used to get to work during the previous week. Bellevue has exceeded the 2023 targets, largely due to the COVID-19 pandemic, as stay-at-home orders were instituted, and many workers and residents reduced travel throughout the city.

n-Drive-Alone Mode Share Targets and Actuals		
2023 Actual	2023 Target	
52.6% (2018-2022)	39.8%	
37% (2018-2022)	32.7%	
Not available**	46.2%	

Plan Targets and Actuals			
	2019 Target	2023 Actual	
nare	42.8%	63.6%	
	9.4	5.8	

2024-2033 TDM targets*:

2024-2033 TDM Plan Commute Trip Drive-Alone Rate Mode Share Targets		
2033 Targets		
Downtown Workers	44%	
Citywide Workers	53%	
Citywide Residents	43%	

Table 0.3: 2024-2033 TDM Plan Drive-Alone Targets

*For the 2024-2033 TDM Plan, targets are expressed in terms of a reduction in the rate of drive-alone commuting, rather than an increase in the rate of commuting by non-drive-alone modes. Showing targets in terms of a reduction in drive-alone mode use aligns with how targets are set for buildings with Transportation Management Programs (TMPs) and provides greater clarity for the reader: "Non-drive-alone rate" needs to be explained, while reducing the *drive-alone rate is intuitive and legible.*

TDM activity measurements

track outcomes of employer and employee online engagements and participation in the city's TDM offerings for businesses, as well as incentive and reward programs, and educational opportunities for workers and residents.

From March 2015 through December 2023, the TDM program team conducted consultations and engagement with 25 new employers and 3 property managers; direct outreach to approximately 1,326 individuals through Bike Month activities; and engendered an estimated reduction of 85 daily round-trip commutes through the dispersal of ORCA Passport Rebates and incentivized trip logging for non-drive-alone commuting.¹ In 2023, 442 people logged a total of 58,026 trips through the "Return-to-Travel" rewards program in which those logging 25 days of non-drive-alone travel would receive a \$50 transportation-related gift card.

Based on the outcomes of the previous 2015-2023 TDM Plan, as well the demographic analysis, studies, and market research, several insights were gained for the development of the 2024-2033 TDM Plan strategies. The following are key insights that Bellevue TDM will address:

- Due to rising home prices pushing people farther away from the urban core, expansion of vanpooling and carpooling is needed outside of urban cores.
- Strong promotion of the new non-drive-alone transportation options (East Link light rail service, Stride BRT, I-405 Express Toll Lanes, Bike Bellevue, Eastrail, and the Grand Connection).
- With Bellevue's multifamily housing and jobs located in frequent transit networks prioritization of outreach to reach more of these employers and residents.
- Most jobs in Bellevue are in the service/ accommodation industry, which will be a priority industry for Bellevue TDM outreach and education efforts. Service & Accommodation jobs includes professional and technical services, management companies, administrative services, private educational services, healthcare, arts, entertainment, food services and other services.

- Continued work with employers to develop parking management strategies such as daily parking instead of monthly for commuters who have remote-hybrid work schedules.
- Intensified efforts to maximize employer-provided transit passes and other sustainable commuting support for employees.

CATEGORY 1: Requirement-Based Programs

1-1 Commute Trip Reduction (CTR) (Audience: CTR-affected employers)

City works with CTR affected companies to assist in their development of commute trip reduction programs per revised code of Washington 70A.15.4020, and Bellevue city code 14.40.

1-2 Transportation Management Programs (TMPs) (Audience: property managers of buildings conditioned with a Transportation Management Program)

Bellevue City Code (BCC 14.60.070) requires developers of large real estate projects to develop and implement Transportation Management Programs, or TMPs.

CATEGORY 2: Product Subsidies and Discounts

2-1 Transportation Benefit Rebates (Audience: employers/property managers)

Provide transportation benefit discounts or rebates for employers or commercial/residential property managers that provide such benefits to their employees and/or tenants.

2-2 Transportation Mini-Grants (Audience: employers/property managers)

Provide mini-grants (e.g. ~\$10,000) to employers and/or property managers for minor capital items; trip reduction campaigns; or other specific trip reduction activities.

2-3 Emergency Ride Home (Audience: workers and, possibly, residents)

Provide a free ride home to individual workers or residents in Bellevue in case of emergency, up to a threshold number of rides per year and threshold distance limit.

2024-2033 TDM Plan Strategies

Through the analysis of the above-mentioned data, TDM and CTR program outcomes, surveys and literature review, Bellevue TDM carried over the following strategies from the last plan and developed new and expanded strategies to encourage more nondrive-alone trips throughout the city.

¹ A discussion of the specifics of Bellevue TDM programs can be found at www.ChooseYourWayBellevue.org/library.

► CATEGORY 3: Education and Assistance

3-1 Commute Program Consulting Services (Audience: Employers/Property Managers)

Provide free consulting services for employers and property managers, conducted by Bellevue TDM program staff familiar with available transportation program options and benefits.

3-2 Program Expert Consulting Services (Audience: Employers/Property Managers)

Hire consultant experts to be available to employers, and potentially for property managers, for consultation on highly technical/specialized industry topics.

3-3 Travel Information Assistance – Real-Time and Longer Term (Audience: Individual workers, residents and students, although audience may be reached through employers/ property managers).

Help individuals navigate the range of non-drive-alone transportation options.

3-4 Ridesharing and Ridematch Promotion (All audiences)

Encourage the use of carpooling and vanpooling modes by educating audiences about their benefits and how to set up new, or to find/join existing carpools/vanpools through the state's RideshareOnline tool.

3-5 School Pool (K-12 students and parents)

Operate a program to encourage and incentivize the use of non-chauffeur modes to schools in Bellevue, as a continuation of the existing program that began in 2016.

3-6 Bellevue 2030 District (Audience: Employers, property managers, employees, and residents)

Coordinate with the Bellevue 2030 District, a membership organization of real estate owners, architects, engineers, contractors, and community partners that bridges the gap between the private and public sector to reduce the environmental impacts of buildings in Bellevue.

3-7 Shared Micromobility (All audiences)

When and if shared micro-mobility (i.e., bikeshare and scooter share) returns to Bellevue and city code allows for scooter use, promote it to individuals, businesses (for their employees), and property managers (for their tenants).

3-8 Multi-Family Residential Engagement (Audience: Multi-family residential tenants)

Enhance efforts to reach Bellevue residents, particularly in multi-family buildings.

3-9 Equity-focused Outreach (Audiences: historically marginalized groups)

Strive towards ensuring that marketing, outreach, and education efforts reach marginalized populations.

CATEGORY 4: Incentives and Rewards

4-1 Trip Logging and Rewards Program (Audience: workers, residents, students)

Through the Choose Your Way Bellevue website and mobile app, people can log non-drive-alone trips and earn rewards

4-2 Commute Challenge (Audience: workers, residents, students)

Seek volunteers currently driving alone to work and willing to try a new commute mode for a period of time.

4-3 Parking Management (Audience: Employers/Property Managers)

Pursue enhanced parking management assistance for employers and property managers.

CATEGORY 5: Marketing and Promotions

5-1 TDM Strategy Marketing and Promotion (All audiences)

Incorporate marketing and promotion into all plan strategies in order to raise awareness and foster uptake of the encouraged activity or transportation mode.

Website (All audiences)

Increase awareness and name recognition of the city's TDM brand, currently CYWB, positioning it as a one-stop transportation resource for information on all non-drive-alone transportation choices in Bellevue.

5-3 Recognition (Audience: Employers/Property Managers)

Conduct activities to recognize employers/property managers doing the right things to facilitate and/ or encourage non-drive-alone travel to and from their workplaces or buildings.

5-4 Email Newsletters (All audiences)

Create and distribute branded email newsletters with information about the latest transportation promotions, campaigns, and incentives; tips for using the transportation system; timely construction information, transportation planning input opportunities; workshops and classes; etc.

5-2 Maintenance and Promotion of www.ChooseYourWayBellevue.org Brand and

(continued)

(continued)

5-5 Intra-City Outreach and Marketing Coordination (All audiences)

Maintain communication and collaboration with other city departments to ensure that every opportunity to share TDM messaging across the multitude of city department communication channels and to share other department's sustainable transportation related information.

5-6 2 Line Light Rail Extension Promotion (Audience: workers, residents, students)

Administer ongoing awareness and rider incentive campaigns related to the 2024-2025 launching and post-launch ongoing operation of the 2 Line Light Rail Extension.

► CATEGORY 6: Research, Planning and Coordination

6-1 Research (All audiences)

Conduct research activities to better understand the Bellevue market for TDM, explore TDM Program design best practices, and/or analyze data to make best use of funding and be most effective in reducing drive-alone rate.

6-2 Enhanced Facilities/Amenities Coordination (All audiences)

Consider exploration of concepts and coordination with other city of Bellevue efforts to enhance nondrive-alone mode facilities and amenities, particularly at key geographic locations for non-drive-alone travel, such as transit centers or transfer points.

6-3 Internal and External Coordination (All audiences)

Coordination and collaboration with other city staff, transit agencies, the Washington State Department of Transportation (WSDOT), and other agencies will be needed for upcoming projects such as the Sound Transit Stride Bus Rapid Transit (BRT) and high-occupancy and express toll lanes on I-405; the Eastrail Multiuse Corridor and the launch of 2 Line light rail service in 2024 and 2025. DR

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CHAPTER 1: Introduction

The Association of Commuter Transportation defines TDM as "the use of strategies to inform and encourage travelers to maximize the efficiency of our transportation systems leading to improved mobility, reduced congestion, and lower vehicle emissions."²

Bellevue, Washington, is a growing city and major employment hub, with over 154,000 residents and 163,000 jobs, and with an additional 70,000 jobs and 35,000 housing units expected by 2044. To accommodate this growth, ensure all residents and workers can experience the city from across the region and economic spectrum, and to advance the City's greenhouse gas emission reduction goals, the city needs a sustainable transportation system that supports transit, carpooling, vanpooling, walking and biking. Bellevue utilizes its transportation demand management program to encourage and incentivize these options and discourage solo driving where possible. Through this work, the TDM program aims to improve transportation system efficiency, equity and sustainability, while encouraging growth and a vibrant future for all in Bellevue.

In Washington, the transportation sector contributes nearly 45% of greenhouse gas emissions—the most significant of any sector.³ Addressing this problem locally involves a suite of transportation strategies and investments that will encourage the use of sustainable modes of transportation. Actions outside of TDM such as diversifying the clean energy supply to power the transportation sector, maintaining transit-supportive

land use policies, and investing in transit, pedestrian, and bicycle infrastructure can help mitigate the climate crisis. However, it is important to pair these actions with supportive policies and programs that will encourage and incentivize the use of sustainable transportation options. That is where TDM comes in: TDM strategies to promote the use of transit, walking, biking, ridesharing and teleworking will be essential to help the city retain mobility in the face of job and residential growth, as well as reduce communitywide greenhouse gas emissions by 50% by 2030 and 80% by 2050, as called for in the city's Environmental Stewardship Plan.4 Furthermore, TDM programs need to be equitably administered to ensure that historically marginalized groups benefit and are part of the TDM planning and implementation process. All communities deserve a transportation network that safely, efficiently, and affordably gets them where they need to go and helps provide them with the tools necessary to adapt to our changing climate.

Effecting changes in how people get around can be challenging. While using personal vehicles for solo travel can be more convenient for many, an individual's commuting costs such as gas, vehicle wear and tear, insurance, tolls, and parking can create financial hardships for many drivers. Other associated costs, while not monetary, include time and health impacts due to traffic delays, traveling in a sedentary way, and pollution. Helping people find ways to travel by modes other than driving alone can reduce individual costs, traffic strain, and pollutionproviding a not only healthier but also more equitable transportation system for users at various income levels. Furthermore, solutions for getting around will need to be contextualized according to location. As an example,

What is TDM?. (2023). Association for Commuter Transportation. Retrieved 30 March 2023, from https://www.actweb.org/what-is-tdm/ ³ Washington State Greenhouse Gas Emissions Inventory: 1990-2018. Washington State Department of Ecology (2021). Retrieved October 18, 2023. ogy.wa.gov/publications/documents/200 ⁴ 2021-2025 Environmental Stewardship Plan. City of Bellevue (2020). Retrieved September 13, 2023. <u>https://bellevuewa.gov/city-government/</u> unity-development/environmental-stewardship/esi-strategic-plan

in areas where transit is scarce, promoting teleworking, ridesharing, and flexible work scheduling will be needed to reduce drive-alone vehicle trips for these travelers.

How Bellevue TDM Works

The city has been engaged in TDM activities since the mid-1980s, and TDM has a strong basis in the city's policy and longstanding practice. By encouraging and incentivizing sustainable travel choices, Bellevue's TDM program creates ongoing change in citywide transportation mode use. In 2015, the city released its inaugural Bellevue TDM Plan, covering 2015 through 2023, detailing the strategies and implementation actions the city would undertake to expand travel choices for its residents and workers. The 2015 plan laid out six categories of focus (see sidebar) for the TDM program. For the 2024-2033 Plan, these categories of focus were reviewed in conjunction with the results of the prior plan, several public surveys, ongoing TDM progress data, and an assessment of current TDM industry literature and best practices. The results of these efforts will be discussed in this updated TDM Plan and will provide the foundation

Ongoing Program Components

In 2015, the Bellevue TDM Plan identified the following categories to house key strategies for 2015-2023, which will be continued for 2024-2033:

- 1. Requirement-Based Programs, such as the state's Commute Trip Reduction law, and the city's required Transportation Management Programs for large buildings
- 2. Product Subsidies and Discounts, such as transportation rebates and mini-grants.
- 3. Education and Assistance, such as commute consulting for employers and property managers and real-time travel assistance.
- 4. Incentives and Rewards, such as trip logging rewards.
- 5. Marketing and Promotions, such as the CYWB website.
- 6. Research, Planning, and Coordination, such as understanding the Bellevue TDM market and improved coordination with other city departments, WSDOT, and local transit agencies.

for strategies and implementation for the next decade through 2033.

Bellevue TDM is focused on encouraging and incentivizing sustainable ways to get around. This is accomplished by the city working with employers, property managers, students and their families, other government organizations (such as transit agencies) and the traveling public to provide information resources, education and incentives for using drive-alone alternatives.

The Program Includes Regulatory and **Non-Regulatory Components**

Key regulatory components that fall under the TDM program are Transportation Management Programs required as a condition of development permitting for large buildings, primarily office; and Commute Trip Reduction required through state law and city code. City TMP code requires developers to establish and maintain programs focused on tenant employees and designed to reduce building traffic impacts. TMPs can be subject to performance measurement requirements. CTR, a cornerstone of how TDM is conducted in Bellevue, requires larger employers, generally those with 100 or more employees at a worksite, to have a commute trip reduction program for their employees and to conduct measurement and reporting related to the program's progress. Since the start of the CTR program in 1991, the rate of drive-alone commuting to CTR worksites in Bellevue has decreased by 39.7 percentage points citywide.

Non-regulatory components oof Bellevue TDM include marketing and promotion to individuals through the Choose Your Way Bellevue travel options brand and website, including a trip logging and rewards program. Users of non-drive-alone modes can log those trips to receive rewards that can help reduce travel expenses, encouraging them to leave their cars at home. In addition, CYWB Business Services helps and encourages employers and property managers to create commute programs for employees at their worksites. The city provides consultations, workshops and assistance as well as financial support such as mini-grants, employee transit pass rebates, and other resources. The city also operates the SchoolPool program, started in 2016, which encourages families and students to use more sustainable modes for school trips to help alleviate congestion at drop-off/pickup zones. The program provides campaigns and events,

marketing and promotional materials, communications and more. In 2022, Bellevue launched the CYWB mobile app, making the information and tools on the website more convenient. More information about existing TDM program activities can be found in the 2022 TDM Progress Report in Appendix IV.

TDM Plan in Relationship to the Comprehensive Plan

The City of Bellevue Comprehensive Plan guides growth and development in the city over a 20-year horizon and is anticipated to be updated every ten years moving forward. The current Comprehensive Plan was adopted in 2015, and the update through 2044 is slated for City Council adoption in 2024. Included in the Comprehensive Plan's Transportation Element are TDM program policies and targets. As a supporting document, the 2024-2033 TDM Plan provides guidance for how the TDM program may reflect and achieve the TDM policies and targets laid out in the Comprehensive Plan. Unlike the Comprehensive Plan, the TDM Plan is not adopted by the City Council, but it is reviewed and endorsed by the Transportation Commission and shared with City Council upon finalization.

Since the release of the 2015-2023 TDM Plan, the world has changed

During the last three years of the 2015-2023 TDM Plan, the COVID-19 pandemic hit, affecting how people live, work, and commute. At the beginning of the pandemic, vehicle miles traveled (VMT), drivealone rates, and transit ridership plummeted as a result of stay-at-home orders and increased telework. Since the stay-at-home orders have lifted and more people have returned to work, VMT has ratcheted back up to almost pre-pandemic levels; transit ridership has not fully recovered; and the future of office spaces and teleworking is still unknown. Non-commute trips have increased, and housing costs are pushing people further out of city centers to more affordable areas where transit service is more limited, resulting in longer commutes for many who travel to work.

In addition, there will be new services and facilities that will increase options for non-drive-alone travel. These include the recent opening of the first phase of East Link light rail (2 Line) service, Sound Transit's Stride bus rapid transit lines on I-405; the I-405 express toll

lanes south to Renton, the Eastrail multi-use walking/ biking corridor, and the Grand Connection crossing over I-405, linking Downtown to Wilburton. The programs and implementation strategies in this TDM Plan are in line with these new realities while maintaining a strong commitment to equity and inclusion.

► Comprehensive Plan Update

In 2024, the City Council is adopting a major Comprehensive Plan update for the 2044 horizon year. TDM staff have worked with comprehensive planning staff on several components, including text revisions of the TDM portion of the Transportation Element and the updating of 2044 commute trip mode share targets for downtown (workers only) and citywide (workers and residents). These new targets, provided in Chapter 2 of this plan, are the basis for 2033 commute mode share targets for this TDM Plan. Progress will be measured using U.S. Census American Community Survey data.

Layout of the plan

Subsequent chapters of this plan contain the background, framework, and strategy for the 2024-2033 TDM program. Chapter 2 includes the vision statement, goals, and performance measurements that will guide efforts to reach the updated TDM program's quantitative mode share targets that align with Comprehensive Plan mode share targets to accommodate growth through 2044. Chapter 2 also evaluates TDM program performance under the 2015-2023 TDM Plan and covers other TDM measurements that are used to determine progress toward established goals. Chapter 3 discusses selected demographic and population trends as they relate to TDM. Chapter 4 summarizes city and TDM-specific research and survey results. Chapter 5 discusses other relevant City of Bellevue plans and a summary of transportation trends that may impact the next decade of TDM work. Finally, Chapter 6 lays out the implementation strategy for the next ten years of TDM in Bellevue. This document serves as both a guide for Bellevue's TDM program and a source of information about the city's TDM efforts.

⁵ Reilly, PJ and Tawfik, A.M. (2022) Do Telecommuters Make Fewer Trips? An Analysis of Telecommuting Travel Behavior in Urban and Rural Communities in the USA International Conference on Transportation and Development 2022. Retrieved 2 December 2022, from https://ascelibrary.org/doi/10.1061/9780784484340.006



CHAPTER 2: Vision, Goals, Measurement and Outcomes

Chapter 1 of this plan defined Bellevue TDM and explained its importance from a mobility and environmental perspective. Building on that context, Chapter 2 incorporates an updated vision, as well as goals, objectives and targets that will guide Bellevue TDM activities over the next ten years based on current and anticipated transportation and travel options. Key to the development of the 2024-2033 TDM Plan is the evaluation of the prior plan's outcomes to determine which strategies need to be carried forward and to inform the development of new strategies to encourage the use of non-drive-alone modes. *This chapter will detail outcomes of the 2015-2023 TDM Plan and Commute Trip Reduction (CTR)* efforts compared to their established targets. Lastly, this chapter will include the new targets to meet by 2033-the plan's horizon.

Vision & Goals for the 2024-2033 TDM Plan

A city in which travelers are well-aware of and consistently use modes of transportation that are convenient, timely, affordable, and good for the environment, supporting the city's growth by helping to minimize added congestion thereby preserving mobility.

- increasingly supportive of non-drive-alone travel options.
- residential and worker populations grow.
- viability of multiple travel options.
- GOAL 5: Develop TDM programming that meets the traveling needs of marginalized populations.

GOAL 1: Increase awareness and usage of non-drive-alone travel options in Bellevue as normal, commonplace ways to get around for commuting and other trips.

GOAL 2: Create an environment for workers, residents and the general public that is

GOAL 3: Increase transportation system efficiency and preserve mobility as Bellevue's

GOAL 4: Improve transportation access to employment, education, health care, and other essential goods and services for city residents and workers through increased

Goals and associated objectives:

GOAL 1: Increase awareness and usage of nondrive-alone travel options in Bellevue as normal, commonplace ways to get around for commuting and other trips.

- Communicate to all audiences that others are using modes other than driving alone, essentially "norming" the use of non-drive-alone modes.
- 2. Provide information people need to consider all potential modes.
- 3. Maintain a travel options platform (Choose Your Way Bellevue) including a brand, website, mobile app, and social media channels for promoting and informing the public about non-drive-alone modes.
- 4. Provide information to the public regarding highoccupancy and express tolling lanes, new transit service and service changes, major construction projects, availability of park-and-ride lots, bicycle parking, new and improved bicycle and pedestrian facilities and amenities, and shared transportation options to increase the use of these options beyond what would occur without Bellevue TDM.
- 5. Work with large and small employers, and property managers to promote non-drive-alone commuting to their worksites.
- 6. Take a research-based approach to ascertaining and tailoring messaging to resonate with the values and priorities of the residents and workers of Bellevue.

GOAL 2: Create an environment for workers, residents and the general public that is increasingly supportive of non-drive-alone travel options.

- 1. Increase the number of worksites that offer nondrive-alone transportation benefits, incentives, and amenities.
- 2. Encourage employers to embrace programs such as telework and alternative work schedules, especially those in locations where other non-drive-alone modes are less viable.
- 3. Encourage employers to embrace vanpool and carpool programs, especially for employees who live in areas where other non-drive-alone modes are less viable.
- 4. Expand employer flexibility on mode subsidization, allowing employees to choose transportation

subsidies for more than just monthly parking i.e., daily parking or non-drive-alone modes.

- 5. Address employees' barriers to changing travel modes, such as lack of flexibility in parking pass choices (i.e., monthly pass only).
- 6. Make engagement in the city's TDM programs as simple and streamlined as possible by setting up turnkey programs, providing instructional infographics, and providing (free) employee and tenant travel plan assistance to employers and property managers.
- Increase the flexibility of occasional-need services for those using a sustainable commute mode, including daily parking options and guaranteed ride home in case of emergency.
- 8. Work with multifamily residential management companies to provide and distribute City of Bellevue non-drive-alone information and programs (Choose Your Way Bellevue resources) to residents.
- 9. Provide resources to help residential management companies install non-drive-alone amenities such as secure bicycle storage and bike repair stations.
- 10. Use results and lessons learned to constantly hone and adjust TDM programs in the short term and make broader program changes as needed to be effective in the long term.
- 11. Contribute TDM resources to communicate other city plans' messaging related to using non-drive-alone modes, such as safety and Vision Zero.

GOAL 3: Increase transportation system efficiency and preserve mobility as Bellevue's residential and worker populations grow.

- 1. Work toward achieving non-drive-alone plan and program targets, and measure progress toward these targets in relation to external market indicators.
- 2. When they are present in Bellevue, promote micromobility (such as bike/scooter share) and on-demand microtransit options that provide additional ways to get around and to make first/last mile connections to transit.
- 3. In line with the Comprehensive Plan *land use* and transportation visions, collaborate with other city teams/departments to ensure transportation

investments and land use/built environment decisions work in tandem to prioritize mobility for non-drive-alone modes, especially in developing areas of the city.

- 4. Educate various audiences on how non-drivealone modes contribute to transportation system efficiency by increasing person throughput on the transportation system and, in turn, reducing vehicle miles traveled and greenhouse gas emissions as called for in Bellevue's Environmental Stewardship Plan.
- 5. Work with city emergency management and construction teams to ensure that contingency transportation detour plans incorporate TDM strategies/non-drive-alone modes.

GOAL 4: Improve transportation access to employment, education, health care, and other essential goods and services for city residents and workers through increased viability of multiple travel options.

- 1. Analyze data and conduct surveys regarding resident and workers' transportation access to essential services like health care, education, and grocery providers.
- 2. Review Bellevue major destination areas (colleges, hospitals, shopping centers, etc.) to better understand transportation mode access and tailor TDM incentives and programs to improve multimodal connections.
- 3. Implement educational and outreach efforts, incentives and programs that address noncommute trips to improve access to essential goods and services.

GOAL 5: Develop TDM programming that meets the traveling needs of marginalized populations.

- 1. Offer incentive programs that help make it easier or less expensive for individuals, employers, and property managers to overcome barriers to using non-drive-alone modes.
- 2. Gather and analyze data measuring access to opportunity to help identify marginalized populations and areas of concern, identify barriers experienced disproportionately by marginalized communities, and tailor TDM programs to meet these community's access needs.

Measurements Methods

Bellevue TDM Plan identified Bellevue TDM uses the measurement methods below to determine progress being made to achieve the established vision and goals. The measurements are divided between those that quantify travelers that are using nondrive-alone modes to reach destinations and measures that quantify Bellevue TDM activities that illustrate engagements, education, assistance, and participation in TDM programs.

<u>Non-Drive-Alone Measurements</u> are obtained primarily through biennial CTR surveys and census data.

- CTR Survey: CTR results are measured through biennial surveys in which employees are asked which mode of transportation they typically used to get to work in the previous week.
- U.S. Census American Community Survey

 Means of Transportation to Work: How people get to/from work is measured through the ACS five-year estimates.
- US Census Transportation Planning Package (CTPP): Provides information on mode use for means of transportation to work to worksites at the census tract level.

TDM Activity Measurements are gathered from the city's CYWB website and city engagements. These measurements track employer and employee online engagements and participation in commute reduction programs, rewards, and educational opportunities. Online programs employers and employees can engage in include:

- CYWB Website/App: The website includes information on non-drive-alone modes. The city can track online engagements and enrollment in programs to help determine worker and residential participation in nondrive-alone options.
- Business Services: This program provides assistance to employers and property managers to help reduce commute trips to their worksites. The city can quantify, for example, how many businesses are participating in the city's mini-grant program or the transit rebate program.
- Incentives and Rewards: The city offers incentives to Bellevue workers, residents and college students who use modes other than driving alone. Participants log nondrive-alone trips building towards their rewards. (continued)

(continued)

Outcomes of the 2015-2023 TDM Plan

The 2015-2023 TDM Plan was the city's first TDM plan to guide TDM work in Bellevue. By 2023, Bellevue TDM exceeded its targets to reduce solo driving. During this period, Bellevue residents surpassed the non-drive-alone target by 12.8 percentage points for a total non-drive-alone rate of 52.6% (vs. 39.8% target). Bellevue workers exceeded the non-drive-alone target by 4.3 percentage points for a total non-drive-alone rate of 37% (vs. 32.7% target). Additionally, CTR program targets were exceeded. The citywide CTR worksite non-drive-alone rate surpassed the target by 20.8 percentage points for a total non-drive-alone rate of 63.6% (vs. 42.8% target). While the 2020-2022 COVID-19 pandemic impacted Bellevue's non-drive-alone rates, it is not certain at this point what travel trends will endure; therefore, Bellevue TDM will need to monitor these trends to help inform any possible strategy adjustments and continue to encourage businesses, workers and residents to travel by non-drive-alone modes.

2015-2023 TDM Plan Commute Trip Rate Mode Share Targets

The Plan set non-drive-alone mode share targets for citywide residents, citywide workers, and downtown workers. These targets were based on staying on track for reaching the Comprehensive Plan's 2035 targets. For 2023, the TDM plan set non-drive-alone mode share targets for citywide residents at 39.8%, citywide workers at 32.7%, and downtown workers at 46.2% (Fig. 2.1).





In 2011-2015, Bellevue residents had a non-drive-alone rate of 34.1%. In 2018-2022 this had increased to 52.6%, concurrent with the ongoing implementation of TDM programs for individuals through the city's CYWB program. The increase was also driven by an increase in work from home starting in 2020, with the onset of the COVID-19 pandemic. Within the last few years, more Bellevue residents choose non-drive alone modes over solo driving (Fig. 2.2).

Means of Transportation to Work - Bellevue residents



Source: Decennial Census (2000), ACS 5-Year Estimates (2005-2022)

Figure 2.2. Non-drive-alone rate of Bellevue residents since 2000. In the years after the 2015-2023 TDM Plan was enacted, the non-drive-alone rate increased, 12.8 percentage points above the 2023 Target.

In 2011-2015, the non-drive-alone rate was 26.6% for people working in Bellevue, compared to 37.0% in 2018-2022 (Fig. 2.3). This increase coincided with Commute Trip Reduction and other business TDM activities, as well as increased teleworking following COVID-19.



Means of Transportation to Work - Bellevue workers

Source: Decennial Census (2000), ACS 5-Year Estimates (2005-2022).

Figure 2.3. Non-drive-alone rate for workers in Bellevue. After the 2015-2023 TDM Plan was enacted, the non-drive-alone rate among workers in Bellevue increased to 4.3 percentage points above the 2023 Target.

Measurements Methods (continued)

<u>Trip Reduction Measurement for Large</u> <u>Buildings – Transportation Management</u> <u>Programs</u>

In Bellevue, TDM targets are also established through building TMPs. TMPs are programs required for mitigation of transportation impacts of development of certain properties (based on the size and land use of the development), through current Bellevue city code section 14.60.070, or previous code requirements or conditions of the development. City code provisions relating to TMP requirements were revised in 2017. In some cases, TMPs are subjected to performance measures, most often a target for the maximum proportion of commute trips to a building by drive-alone mode. The City's TMP Implementation Guidelines describe procedures for establishing TMP agreements at new buildings as well as protocols for ongoing monitoring of building compliance and performance, including situations where TMP building requirements and CTR employer requirements may overlap. Implementation activity requirements may include distributing transit and rideshare information; providing non-drivealone financial incentives; providing bicycle amenities; and designating preferential parking for carpools and vanpools.

Note on measurements: As TDM practitioners are aware, while sources are available for measuring changes in mode share from drive-alone to other modes, what is more difficult is ascertaining to what degree a particular TDM strategy or set of strategies was causal to that mode shift. There are many factors that contribute to the level of people choosing modes other than driving alone, including fuel prices, demographic and socioeconomic changes, economic conditions, cultural shifts and other factors.

This difficulty is increased by the fact that the level of usage of many non-drive-alone modes (especially transit and walking) is heavily influenced by the density of land uses of an area. For instance, areas of greater density of employment and housing allow transit to provide more efficient service and lead to more people living close to where they work and/or undertake daily activities. Therefore, the incremental impact of TDM strategies can vary according to the environment in which they are conducted. The above data illustrates how the pandemic has changed how Bellevue residents and workers travel. As more Bellevue travelers are opting for non-drivealone modes, Bellevue TDM will take advantage of the moment to help ensure this trend continues. Bellevue TDM will closely monitor travel trends within the coming years as we move beyond the pandemic and continue to encourage residents and workers to continue this upward trend of using more nondrive-alone modes and not returning to solo-driving commute trips.



Source: Decennial Census (1990 & 2000), ACS and Census Transportation Planning Package (2006-2010 & 2012-2016).

Figure 2.4: Non-drive-alone rate for downtown workers in Bellevue. The severe lag time on downtown mode share data availability makes it difficult to draw conclusions, but the non-drivealone rate among downtown Bellevue workers has been steadily increasing since the 1990s.

As of this writing, the most recent downtown worker data point of 34.5% non-drive-alone mode share is for 2012-2016, which is prior not only to the 2024-2033 TDM Plan, but mostly prior to the start of the prior 2015-2023 TDM Plan as well. That figure contrasts with the 46.2% TDM Plan 2023 target. Mode share data for smaller geographies such as downtown Bellevue are provided by the Census Transportation Planning Package (CTPP) based on the U.S. Census American Community Survey, and typically are released following a lag of three or more years following the final year of the data span. While this data point may be several years behind, the above section, CTR Outcomes, has mode share data from CTR-affected employers including worksites in downtown Bellevue which provide an approximation of how the nondrive-alone rate may have changed for all workers in Downtown Bellevue. At a future point, Bellevue TDM anticipates the release of the CTPP downtown worker drive-alone mode share data for 2017-2021. Upon its release, the new downtown worker data will be included in an amendment to the 2024-2033 TDM Plan.

TDM Activity Measurements

From March 2015 through December 2023, the TDM program team conducted consultations and engagement with 25 new employers and three property managers; direct outreach to approximately 1,326 individuals through Bike Month activities; and engendered an estimated reduction of 85 daily roundtrip commutes through the dispersal of ORCA Passport Rebates and incentivized trip logging for non-drivealone commuting.⁶ In 2023, 442 people logged a total of 58,026 trips through the "Return-to-Travel" rewards program in which those logging 25 days of non-drivealone travel would receive a \$50 transportation-related gift card.

Through various TDM activities, Bellevue TDM has been able to engage with employers, property managers, and residents. Based on TDM activity trends, Bellevue TDM should establish activity goals to better track progress being made in engagement efforts. With few new employers and property managers engaging over the last plan period, Bellevue TDM must advance and expand outreach efforts for improved engagement.

2015-2019 CTR Plan Targets

In 2015, the state required that minimum targets for jurisdictions consisted of a six-percentage point increase for non-drive-alone travel (NDAT) for the 2019/2020 timeframe from the 2008 baseline. Therefore, Bellevue's NDAT 2008 baseline of 36.8% would increase to 42.8% by 2019/2020, resulting in a 16.3 % increase. For vehicle miles traveled (VMT) and greenhouse gas (GHG) emissions reductions, the state called for an 18% decrease for both from the 2008 baseline. This resulted in a two mile per person decrease from 11.4 miles to 9.4 miles by 2019/2020. The state has opted to calculate the GHG target directly from VMT. Thus, the GHG target is 18%, or 9.4 VMT per person – the same as the VMT target. These targets originated in the 2015-2019 CTR Plan, which has been extended to 2025 and is attached in <u>Appendix III: Bellevue Commute Trip Reduction Implementation Plan</u>. The CTR results are measured through biennial surveys in which employees are asked which mode of transportation they used to get to work each day in the previous week.

2015-2019 CTR Plan Targets				
Baseline (2007-2008) % Change Target 2019-2020				
NDAT	36.8%	+16.3%	42.8%	
VMT	11.4	-18%	9.4	
GHG	11.4	-18%	9.4	

Table 2.1: 2019-2020 CTR Plan Non-Drive-Alone Targets and VMT/GHG Targets.



⁶ A discussion of the specifics of Bellevue TDM programs can be found current TDM Progress Report at <u>www.ChooseYourWayBellevue.org/library</u>.

Outcomes of Commute Trip Reduction (CTR)

As stated in the previous chapter, the CTR Plan seeks to reduce drive-alone commute trips citywide made by employees at worksites affected by the state CTR law. Generally, affected employers are those with 100 or more full-time employees at a worksite who start their workdays between 6 and 9 a.m.

As of the CTR survey cycle ending in mid-2023, the city exceeded its target of at least 42.8% by 20.8% for a citywide non-drive-alone rate of 63.6%. Additionally, the city has also exceeded its target of no more than 9.4 vehicle miles traveled per-person, one way with a citywide VMT per-person average of 5.8 miles. These outcomes are largely a result of the COVID-19 pandemic due to increased teleworking. Bellevue TDM will have to track these trends moving forward as more people return to the office and the future of teleworking continues to unfold. (Figs 2.5 and 2.6).



Figure 2.5: Non-drive-alone rate at Bellevue CTR worksites for the 2015-2023 TDM Plan period, with targets.

*Includes surveys completed in year shown or year prior. 2019-2020 survey period extended for six months into 2021 due to COVID-19 and the following survey period covered the last six months of 2021 and extended for six months into 2023. All but three worksites conducted their surveys prior to COVID-19 for the 2019-2021 cycle.



Figure 2.6: Average Vehicle Miles Traveled (VMT) per one-way commute trip to Bellevue worksites for 2015-2023 TDM Plan period, with targets.

Note: VMT data based on state methodology. VMT is calculated per person, not per vehicle; that is, a carpool with two people would be counted as half the distance as a single-occupant vehicle traveling the same distance. However, note that transit trips are not included in the calculation for VMT because of insufficient data (on transit vehicle occupancy at areas statewide where CTR regulations are in effect).

Historic CTR Program Results

At the time of the first CTR survey results taken in 1993/1994, the rate of drive-alone commuting in the U.S. was 74%, and the same figure was 73.8% in Washington, 70.9% at CTR worksites in Washington, and 74.3% at CTR worksites in Bellevue. At the time of the 2019/2021 CTR survey cycle, 26 years later,



Sources: ACS 1-Year estimates, CTR Program Data

Figure 2.7: Drive-alone commute rate in the U.S., Washington, Washington CTR worksites, and Bellevue CTR worksites, 1993/1994-2021/2023.

While the national and state rates have remained relatively constant since the early 90's, CTR worksites in Washington and Bellevue have seen faster declines in drive-alone commuting.

the average rate of drive-alone commuting in the U.S. increased by almost 2 percentage points before falling 8.1 percentage points in the 2021/2023 survey cycle due to the COVID-19 pandemic. Washington state's drive-alone rate decreased 11.8 percentage points. Furthermore, at CTR worksites in Bellevue, the drive-alone rate decreased by 37.9 percentage points (Fig. 2.7). Within Bellevue, the drive-alone rate at CTR sites is lower in the downtown area than outside downtown. From the start of CTR in the early 1990s, to the 2021/2023 survey, the drive-alone rate decreased by 40.1 percentage points citywide, with a reduction of 40.7 percentage points in Downtown Bellevue and a reduction of 29.2 points outside downtown (Fig. 2.8).

Bellevue's CTR program has long been successful at reducing solo driving to/from large worksites. As indicated above, the pandemic ushered in a

new travel paradigm, which has changed how and when people travel. While all CTR targets have been exceeded, Bellevue TDM will monitor program performance in the coming years to see if current trends continue. Even though drive-alone trips have decreased at worksites citywide, outside of downtown and in downtown, there is still a higher drive-alone rate for worksites outside of downtown, necessitating a focus on increasing carpools and vanpools, more flexible schedules and teleworking to reduce solo driving.





2024-2033 TDM Plan Targets & CTR Targets

The targets in this plan originate from both Bellevue's Comprehensive Plan and the state's CTR program goals. The targets are then tailored to the TDM program, with the addition of distinct targets for various populations and time frames as needed to align with the externally directed targets.

The overarching targets in this TDM Plan are derived from the Comprehensive Plan targets and modified to the TDM Plan's horizon year (2033) instead of the Comprehensive Plan's horizon year (2044). These Bellevue TDM Plan targets comprise commute trip drive-alone mode share for downtown and citywide workers as well as for citywide residents. For the 2024-2033 TDM Plan, targets are expressed in terms



*Baseline year 2020 drive-alone percentages for citywide residents and workers are derived from the U.S. Census American Community Survey 2018-2022, 5-year estimates, with 2020 as the mid-point year (baseline) in this time frame. Baseline year 2014 drive-alone percentage for downtown workers are derived from the U.S. Census Transportation Planning Package 2012-2016 5-year estimates, with 2014 as the mid-point (baseline) in this frame

Figure 2.9: 2033 TDM Plan Commute Trip Rate Drive-Alone Mode Share Targets; Baseline Years; 2044 Comprehensive Plan Drive-Alone Targets.

Methodological Approach:

This Bellevue TDM Plan identifies targets for all commute trips. These targets are derived from the 2044 mode share targets in Bellevue's Comprehensive Plan. The 2044 targets in the Comprehensive Plan comprise the percentages of people commuting by drive-alone mode for the following populations and geographies:

(1) downtown workers (30%); (2) citywide workers (45%); and (3) citywide residents (40%).

The horizon year for the Bellevue TDM Plan is 2033. Therefore, the approach for this plan is to plot a straight line on a graph from the 2017⁷ baseline year to the 2044 target year on a graph and capture the point at which the line crosses the year 2033. The drive-alone commute trip percentage for that point will be the target for the Bellevue TDM Plan for these three populations/ geographies (see Figure 2.9 for TDM Plan targets).

The target year is considered to be 2033 even though actual available measurement years may vary slightly from 2033. Anticipated actual measurement years and data sources will be described below in the "Target Calculation" section for each population/geography.

Calculation Methodology for Bellevue TDM Plan Targets:

 <u>Citywide Workers</u>: The overall citywide worker target is the 2033 "Plan Horizon" point on the graph in Figure 2.9, which is 53%. The 2020 baseline is 63%. The target is 10 percentage points lower than the baseline. Progress will be measured through the U.S. Census American Community Survey (ACS). The closest time frame available for measurement of this target will be the ACS 2029-2033 five-year averages, so this is the figure that will likely be used for the measurement. It is anticipated that this data point will be available in 2034.

- 2. <u>Citywide Residents:</u> The overall citywide resident target is the 2033 "Plan Horizon" point on the graph in Figure 2.9, which is 43%. The 2020 baseline is 47%. The target is 4 percentage points lower than the baseline. Progress will be measured by the U.S. Census American Community Survey. The closest time frame available for measurement of this target will be the ACS 2029-2033 five-year averages, so this is the figure that will likely be used for the measurement. It is anticipated that this data point will be available in 2034.
- 3. Downtown Workers: The overall downtown worker target is the 2033 "Plan Horizon" point on the graph in Figure 2.9, which is 44%. The 2014 baseline is 68%.⁸ The target is 24 percentage points lower than the baseline. Progress toward this target will be measured through the U.S. Census American Community Survey through the Census Transportation Planning Package. The closest time frame available for measurement of this target will be the 2029-2033 five-year average, so this is the figure that will likely be used for the measurement. It is anticipated that this data point will be available in 2034.

CTR Targets

The state requires jurisdictions to develop local plans to guide their CTR programs, which have a significant impact on the city's overall worker drive-alone rate, since CTR workers comprise 25% of all workers in the city. The most recent 2015-2019 Bellevue CTR Plan was adopted in 2015 and was extended by the Washington State Department of Transportation through 2025. The CTR Plan update will be adopted by the City Council in 2025 and will include new targets for the 2029-2030 survey period. Therefore, the current targets below from the 2015-2019 CTR Plan will be carried forward until December 2024.

2019-2020 CTR Plan Targets				
Baseline (2007-2008) % Change Target 2019-2020				
NDAT	36.8%	+16.3%	42.8%	
VMT	11.4	-18%	9.4	
GHG	11.4	-18%	9.4	

Table 2.2: 2019-2020 CTR Plan Non-Drive-Alone Targets and VMT/GHG Targets.



⁷ The 2020 baseline is the mid-point year of the U.S. Census American Community Survey (ACS) 2018-2022 5-year averages that are used to measure progress towards 2033 non-drive-alone targets.

⁸ As mentioned above, the most recent Census Transportation Planning Package (CTPP) was not available at the time of this writing, the most recent downtown worker data point of 68% drive-alone mode share is for 2012-2016 (2014 baseline year), which is prior not only to the 2024-2033 TDM Plan, but mostly prior to the start of the prior 2015-2023 TDM Plan as well. Therefore, an amendment to this Plan will be provided once the 2017-2021 CTPP data is made available.



CHAPTER 3: **Demographic Characteristics and Trends**

To help set the stage for developing strategies for the next decade, TDM staff gathered and analyzed relevant demographic data. This chapter provides a broad overview of the demographic trends that affect Bellevue's TDM program, with a focus on relevant changes to the demographic composition of the community since the 2015-2023 TDM Plan was developed. Demographics discussed include resident, worker and employer data.

Demographics Overview

Bellevue is the fifth largest city in Washington, with an estimated population of 152,765 as of 2022. Bellevue has 163,000 workers, 54,944 of whom are in downtown.⁹ By 2035, the city is anticipating population growth to more than 160,000 residents, with an additional 70,000 workers by 2044.¹⁰ With such sustained growth, the city will need a transportation network that will meet the needs of both residents and workers. While only 8.3% of Bellevue households do not own a car, this is an increase of 42% since 2015. The need to provide non-drive-alone commute options is steadily increasing.

Population Characteristics Snapshot

Bellevue's population is aging and becoming more diverse with many non-English speaking households, and many workers are earning higher incomes. On the other hand, low-income households are spending more of their income on housing costs than moderate and high earners - making affording other essentials like transportation difficult. Additionally, most of Bellevue's multi-family housing is located on frequent transit networks; therefore, prioritizing outreach efforts in these areas and tailoring the outreach to meet the needs of and services available to the abovementioned groups, can help the city effectively reach more people.

⁹ U.S Census Bureau. (2023). 2021: ACS 1-Year Estimates Total Population. Retrieved from https://data.census.gov/table?q=Population+Total&tid=ACSDT1Y2021.B01003 ¹⁰ City of Bellevue, WA. (2019). Population. Retrieved from https://bellevuewa.gov/city-government/departments/community-development/data/demographic-data/

population-trends





3. Bellevue has many households speaking non-English languages at home

 50% of Bellevue households do not speak English at home, compared to 31% of King County households and 22% nationally.

• The most common non-English speaking languages spoken at home in Bellevue: Chinese, Spanish, Korean, Russian, Japanese, Vietnamese, Hindi, Telegu, Tamil, and Turkish.

Residents who speak English	less than "very well"	
All Bellevue Residents		16 %
Of Those Who Speak an Asian or Pacific Asian Language		38%
Of Those Who Speak Sp	anish	39%
4. Low-income households represent the largest proportion of households that spend 30% or more of their income on housing costs		
Annual Household Earnings	Spend 30%+ Income on I	Monthly Housing Cost
\$20,000 or less		93%
\$50,000-\$74,999		67%
\$75,000 or more		15%

Note: The trends discussed in this section use ACS 1-Year 2022 data. Point estimates are provided but due to sample limitations, none of the changes described are considered statistically significant. The People, Homes & Jobs in Frequent Transit Networks is derived from city data.

Bellevue Employer Characteristics

Bellevue subdivides the city into Performance Management Areas (PMAs) (Fig. 3.4) for transportation planning and performance evaluation purposes. Evaluating PMAs helps the TDM program by identifying where best to reach the community and informs TDM policies and strategies development.

Employment by Location

PMAs are designed to reflect land use objectives and contain areas with similar connectivity, mobility options, topography, and development patterns. There are currently three types of PMAs: Type 1 -High-Density Mixed Use, Type 2 - Medium-Density Mixed Use and Type 3 - Low-Density Residential Neighborhoods. Types 1 and 2 PMAs consist of commercial and residential centers, while Type 3 PMAs are typically lower-density residential areas with supporting retail and service land uses. Data on how jobs are dispersed through Bellevue helps inform the



Figure 3.1: 2021 Jobs by PMA



Figure 3.2: 2021 Worksites by PMA

TDM program to better understand how and where to reach the community – areas of higher job density could benefit from carpooling and vanpooling as these employees are traveling to the same worksite and could also benefit from better urban transit service coverage – this is where TDM activities can be the most effective.

Figures 3.1 and *3.2*: Total jobs (top) and workplaces (bottom) by Bellevue Performance Management Area. By definition, the city's high-density PMAs have a higher density of employers and worksites than the residential neighborhoods. These areas of high employment are where TDM program work can be most effective. The significantly higher number of workplaces as compared to jobs in Type 3 indicates the prevalence of workplaces with few employees in this PMA type.

Methodology Notes

The "covered employment" estimates in this section are provided by the Puget Sound Regional Council (PSRC) and are derived from the Quarterly Census of Employment and Wages (QCEV), administrative records submitted by employers to the Washington State Employment Security Department. The unit of measurement is jobs, rather than working persons or full-time employment (FTE) equivalents; part-time and temporary positions are included. Locations are measured as separate reporting workplaces, rather than firms. "Covered employment" refers to positions covered by the Washington Unemployment Insurance Act, which exempts self-employed, proprietors and corporate officers, military personnel, and railroad workers, all of which are excluded from the dataset. Covered employment accounts for approximately 85-90% of all employment.



Figure 3.3: The city's Performance Management Areas, as defined in the Mobility Implementation Plan.

Employment by Business Sector

Understanding what types of jobs and employees are in each city PMA is additionally valuable information for the TDM program. Effective TDM policies help to facilitate sustainable transportation choices that will vary between different types of workers (office workers and retail workers, for example). Puget Sound Regional Council data on employment by PMA





and business sector is analyzed to better inform the Bellevue TDM program's policy choices. Business sectors are provided in eight categories, based on North American Industry Classification System classifications: Construction/Resources,¹¹ Manufacturing,¹² Service & Accommodation,¹³ Government, Finance & Real Estate,¹⁴ Retail,¹⁵ Wholesale Trade, Transportation, & Utilities,¹⁶ and Public Education.

The Type 3 PMAs have a high number of very small worksites.

¹¹ Construction/Resources is defined by PSRC by North American Industry Classification System (NAICS) codes 11, 21, and 23: Agriculture, Forestry, Fishing and

13 Service & Accommodation is defined by PSRC by NAICS codes 51, 54, 55, 56, 61, 62, 71, 72, and 81: Information, Professional, Scientific and Technical Services, Management of Companies and Enterprises, Administrative and Support and Waste Management and Remediation Services, Educational services (private sector only), Health Care and Social Assistance, Arts, Entertainment and Recreation, Accommodation and Food Services, and Other Services (except Public Administration).

Hunting, Mining, and Construction.

¹² Manufacturing is defined by PSRC by NAICS codes 31, 32, and 33, all of which are "manufacturing."

¹⁴ Finance & Real Estate is defined by PSRC by NAICS codes 52 and 53: Finance and Insurance and Real Estate and Rental and Leasing.

¹⁵ Retail is defined by PSRC by NAICS codes 44 and 45, both of which are "retail trade."

¹⁶ Wholesale Trade, Transportation, & Utilities is defined by PSRC by NAICS codes 42, 48, and 49: Wholesale Trade and Transportation and Warehousing.

Employment by Business Size

Lastly, employment is reported by business size. Workplace sizes are categorized as 1-4 employees, 5-19 employees, 20-49 employees, 50-99 employees, and 100+ employees. These data points help refine the TDM program's approaches, as effective strategies in areas with many large employers will differ from an PMA with fewer large employers and therefore more dispersed employment.

While Bellevue has many small businesses with 1-4 employees, the majority of Bellevue employees work for

large employers of 100+ employees. Most jobs are in the services and accommodation industry (which includes software/IT), and most jobs are in the high-density mixed-use areas of the city. The city's Commute Trip Reduction program described on page 12 has been and will continue to be an important tool to reach these large employers and their employees. Also, prioritizing strategies and outreach to small businesses, the service industry citywide, and targeting job locations in high-density mixed-use areas will be needed to reach more employees.



Figure 3.6: 2021 Jobs by Location and Business Size category.



Figure 3.7: 2021 Worksites by Location and Business Size category.

Summary of Demographics and Bellevue TDM

To respond to the city's demographics shift, Bellevue TDM will develop multiple strategies to encourage the use of non-drive-alone modes among a diverse range of transportation needs. Bellevue's population is aging and becoming more culturally diverse, with many spending more on housing and transportation costs, especially those living in low-income households. Bellevue has many multi-family housing units located in frequent transit networks, a situation that provides opportunity for Bellevue TDM outreach. Also, Bellevue's largest employment sector is the service and accommodation industry, and the city is home to many large and small businesses. Bellevue TDM will need to enhance and

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develop non-drive-alone strategies and business outreach efforts tailored to each business type, size, and location.

In addition to the demographic analysis, Bellevue TDM staff conducted stakeholder outreach by administering and using multiple surveys to gather insights and opinions from employers, employees, and residents. Bellevue TDM staff also conducted TDM industry best practices research to better understand the issues and potential solutions to help reduce solo driving. This work, in combination with the demographic analysis, will help Bellevue TDM design strategies that work best for those who work and live in Bellevue. This plan will cover the surveys and market research in the next chapter.



CHAPTER 4 : **Audience and Market Research**

Bellevue TDM assessed several city surveys to gather public opinion and conducted literature research and a non-scientific audience survey to understand local audiences as well as nationwide TDM data and best practices. This chapter presents public opinion on transportation priorities from two city surveys; traveler input on mode choices and reasons behind those choices from a TDM program attitudinal research study; and public input on the planning process for the TDM Plan. These sources provide insight into the transportation priorities of city residents and workers and illustrate motivators and barriers to using modes other than driving alone.

2044 Comprehensive Plan Survey

As part of developing the Comprehensive Plan update for 2024, the city conducted a statistically valid survey (conducted by an outside research firm) of community preferences regarding growth and development, as well as transportation, in Bellevue over the next 20 years.¹⁷ This survey received 1,152 responses from a random sample of residents and included several TDM-relevant questions.

Key Takeaways

Respondents were asked about their public transit usage and, for those who infrequently use transit, their reasons for their traveling preferences.

• In the last 12 months, 54% of respondents indicated they had never used public transit, compared to 11% who said they use transit once a week or more (Fig. 4.1).



Figure 4.1: "In the past 12 months, how often have you used public transportation?"

• For those who infrequently use transit, the most common reason was they simply did not want to use transit (46%), followed by 35% of respondents choosing "other" - the two most referenced reasons for this category were public transit being slow or inconvenient (61 mentions) and COVID concerns (58 mentions) (Fig. 4.2 & 4.3).



Source: Bellevue Comprehensive Plan 2044 Survey, Part 1 - Local Activities.

Figure 4.2: "Which of these statements best describes the reason you have rarely or never use public transit?"

¹⁷ The Bellevue Comprehensive Plan 2044 survey garnered 1,152 responses. The margin of error was calculated at +/- 2.8% at 95% confidence.



Figure 4.3: The top five "other" reasons to the question in Figure 4.2 from the Bellevue Comprehensive Play 2044 survey

Development Priorities

Respondents were asked their priorities for development and transportation in the city. For this question, priorities were assigned "utility scores" which show relative importance of each development area. The utility scores add up to 100 and show how much more important one priority is compared to another (Fig. 4.4).

While frequent bus service has a relatively low utility score of 7.3, the ability to walk to a meeting place scored higher at 13.1; indicating that Bellevue residents on average believe walking to destinations is almost 80 percent more important than having frequent bus service. The same can be said for preserving and enhancing tree canopies. Additionally, residents placed the ability to drive and find parking higher than having frequent bus service with a utility score of 9.3, 22 percent more important than frequent bus service.



Source: Bellevue Comprehensive Plan 2044 Survey, Part 2 - Development Priorities.

Figure 4.4: Relative importance of 10 development priorities, ranked by utility score.

City Budget Survey

The City of Bellevue conducts a Budget Survey every two years dating back to 1998 to discern community perceptions and priorities and inform the city's biennial budget. The survey is designed to be statistically valid and was most recently completed in 2022.¹⁸ Below are key highlights relating to TDM, including comparisons to the 2014 Budget Survey,¹⁹ which was used in drafting the previous iteration of the TDM Plan in 2015.

Biggest Problems Facing Bellevue

In 2014, the topical areas most identified as problems in Bellevue were "traffic" (39%) and "transportation" (21%). In 2022, however, "traffic" and "public transportation" were the sixth and seventh biggest problems, receiving 13% and 8% of responses, respectively. Notably, respondents with less than \$75,000 in income per year selected "traffic" and "public transportation" at a higher rate than average, at 15% and 10%, respectively.²⁰

Affordability/Cost of Living (26%), Safety/Crime (18%), Homelessness (18%), Growth/Congestion (18%), and Human/Social Services (13%) were selected as Bellevue's top five biggest problems in 2022.

Priorities and Focus Areas

The 2022 City Budget Survey included questions on what the top focus areas and budgetary priorities for the city should be. "Improving transportation and related services to ensure transportation is reliable

Budget Survey Transportation Priorities			
	2014	2022	
Work with regional agencies to improve transit service	90%	80%	
Encourage people to choose alternative transportation modes	80%	78%	
Work with the state to widen highways	60%	55%	
Widen major city roads	51%	44%	
Table 4.1: City Budget Survey Transportation Priorities responses.			

and predictable" was ranked as the third highest budget priority for 2022. "Reducing traffic problems in downtown Bellevue" was ranked as the sixth highest priority on which Bellevue should focus to increase resident happiness..

Transportation Prioritization

The Budget Survey asks questions regarding how Bellevue residents prioritize transportation--specifically, how to reduce transportation congestion. Support for statements about both public transit and road widening have decreased since 2014, while support for encouraging sustainable alternatives to drivealone transportation modes has remained roughly the same. Despite some shifts in priorities and attitudes, respondents support improvements in transit and encouraging alternative transportation modes over road and highway widenings-indicating consistent and strong support for TDM strategies to improve transportation conditions in the city.

18 The 2022 Budget Survey garnered 951 responses. The margin of error was calculated at +/- 3.13% at 95% confidence. The full survey results can be accessed here.

¹⁹ The 2014 Budget Survey results can be accessed here.

²⁰ There were two income brackets identified in the survey: <\$75,000/year and \$75,000-\$200,000+.

Transportation Demand Management Attitudinal Research Study

In 2017, TDM staff engaged a consultant to conduct qualitative research in the form of an Attitudinal Research Study. The purpose of the study was to assess Bellevue's employer, property manager, worker, and resident markets to facilitate non-drive-alone modes of transportation for the TDM program. The study was conducted online with a total of 78 resident, employee, employer, and property manager participants, and asked quantitative and open-ended questions to identify motivations and barriers to the use of non-drive-alone modes.

Table 4.2 lists the six key findings and recommendations from the study, for all audience segments. Many of the findings reference information barriers, as well as receptivity to information about non-drive-alone alternatives if provided in a clear manner. A key finding is that the options need to be

convenient to motivate respondents to use them. Since this study was completed, the city has updated the Choose Your Way Bellevue travel options website and launched a Choose Your Way Bellevue informational mobile app to help ensure clear and easy-to-understand information regarding non-drive-alone alternatives.

Key Findings	Recommendations
Awareness of non-drive-alone methods is low, but people are receptive to new information about commute alternatives.	Communicate with community & use technology to expand reach and provide convenient tools.
People are interested in non-drive-alone modes, but misperceptions persist.	Communicate with the public about trade-offs, provide incentives, and invest in customer-friendly tools.
The logistics of everyday use are key to getting public on board with non-drive-modes.	Technology can help overcome these logistical barriers along with transportation system improvements that also reduce costs of non-drive-alone travel.
Communication gaps lead to misunderstandings.	Communication can bridge the gap between stakeholders, and incentives can help change behavior.
Choose Your Way Bellevue walks a fine line between "informative resource" and "information overload".	The site should be simplified and streamlined, bringing the most important information to the front.
The Choose Your Way Bellevue site is successful in motivating people to consider/adopting non-drive-alone travel.	To be more successful, the site should provide more knowledge, specifically with regard to savings, safety, and positive imagery.

Table 4.2: Key Findings and Recommendations

Source: City of Bellevue Transportation Demand Management Attitudinal Research Study, pg. 16-21

Employees in the study were asked about which commute benefits they have heard of and which, if any, their employer offers. While 87% of employee respondents had heard of transit pass subsidies, only 44% were aware of a transit subsidy being offered by their employer. Most respondents were also aware of secure bicycle parking, flexible work schedules and teleworking but were not as aware of benefits such as carpool subsidies, free parking days for nondrive-alone commuters, and company-supported car sharing. As far as employee offerings, the study indicates that more companies should be providing vanpool and carpool subsidies, carsharing programs,

> Transit pass subsidy Secure bicycle parking Showers/lockers Flexible/compressed schedule Telework policy Vanpool subsidy Emergency Ride Home Carpool subsidy Pay with pre-tax dollars Free park days for non-drive-alone commuters Company supported carsharing Company-supported trip logging/incentive program _____ 13% Company-supported ride matching 8%

Showers/lockers Secure bicycle parking Transit pass subsidy Telework policy Flexible/compressed schedule Emergency Ride Home Company-supported trip logging/incentive program Pav with pre-tax dollars Other (not specified) Vanpool subsidy Free park days for non-drive-alone commuters Carpool subsidy Company-supported ridematching Company supported carsharing

Source: City of Bellevue Transportation Demand Management Attitudinal Research Study, pg. 19-20

and more. This information is vital to the TDM program, as a significant focus has been reaching out to and encouraging employers to offer these benefits to their employees. Bellevue TDM will need to continue efforts to educate and encourage both employers and employees on non-drive-alone modes, especially for trip logging, which is available to all Bellevue employees but has low awareness. The following charts illustrate the percentage of respondents that are aware of commute benefits (Fig. 4.5) and those who are offered which benefits (Fig. 4.6). As an example, 87% of respondents are aware of transit pass subsidies, but only 44% are provided with these passes.



Figures 4.5 (top) & 4.6 (bottom): Percent of employees who have heard of given commute benefits and percent of employees who are offered these benefits. n = 39 (5.5) and 27 (5.6).

Outreach for this plan update: Survey & Online Open House

To inform development of this TDM Plan update, Bellevue TDM conducted public outreach through two sources: (1) a non-scientific Community Input Survey designed to garner input on how the Bellevue community moves around the city and how the TDM program can better assist them; and (2) open-ended feedback on the plan update through the city's "online open house" platform, Engaging Bellevue.

Community Input Survey

327 people responded to the Community Input Survey, consisting of 37 total questions, including questions on respondent demographics, commute and non-commute transportation modes, and what may motivate them to choose driving less. Employers and property managers were additionally isolated in the survey and asked specific questions relating to their employees and tenants, though only three employers and one property manager responded. Key takeaways are described below, and the full set of responses is in Appendix II.

Over half (51.6%) of respondents indicated they drive alone to work and school. The primary reasons people gave for driving alone for their commutes was it saves time (54.0%), there are no reasonable transit options (47.4%), and they need a car for running errands before and after work (31.6%). Additionally, for those who do use non-drive-alone modes for commuting trips, factors that motivate respondents to do so are cost savings (gas, parking, insurance, tolling, etc.) (53.8%), health benefits of active commuting (walk, bike, etc.) (36.6%), stress reduction (36.6%), and to improve air quality/environmental reasons (32.4%).

The top three motivators that would compel respondents to use non-drive-alone modes for commute trips were more frequent/convenient bus service (51.3%), faster way to do non-drive-alone commute (40.8%), and better pedestrian/bicycle access (17.8%).

Respondents also indicated that most also drive alone for non-commuting trips at 55.9%. The primary reasons people gave for driving alone for non-commute trips was it saves time (58.5%), they need a car for transporting groceries or other items (56.7%), and that there are no reasonable transit options (51.8%). Additionally, for those who do use non-drive-alone modes for non-commuting trips, the reasons are cost

savings (gas, parking, insurance, tolling, etc.) (51.2%), health benefits of active commuting (walk, bike, etc.) (40.5%), and convenience (36.6%).

The top motivator that would compel respondents to use non-drive-alone modes for non-commute trips was more frequent/convenient bus service (53.0%), followed by "nothing would motivate me" (28.7%), and the need for better pedestrian/bicycle access (24.4%). TDM efforts to make active transportation more attractive and raising awareness of the frequent transit network could be beneficial to get more people to use non-drivealone modes.

These responses for both commute and non-commute trips speak to a desire for travel time savings, convenience, and improved transit service. Improving transit service and speeding up non-drive-alone trips, while essential, are not directly within the purview of the TDM program. While Bellevue TDM can bring these concerns to other city staff and agency partners, where Bellevue's TDM program can have an impact is through working with employers to provide a financial subsidy for bus fare or other mode (13.2%) and a guaranteed ride home in case of an emergency (10.5%).

While not many employers and property managers participated in the survey, a few insights were gathered from the few employers (3 in total) that did participate. Two of the employers have teleworking programs for their employees, and less than 20% of those employees are estimated to use non-drive-alone modes to get to work when in the office. Employers support the need to support non-drive-alone commuting to make their company more attractive to employees, and they indicated that roughly 21-40% of their employees would be interested in receiving information, assistance, or financial incentives. Bellevue TDM will need to work closely with employers to increase employee participation in city TDM programs and

incentives as well as assisting those employers in developing company specific TDM strategies such as providing transit and rideshare subsidies and installing bicycle parking and amenities.

Engaging Bellevue Online Open House

Through the city's Engaging Bellevue online open house, 224 visitors have engaged with the 2024-2033 TDM Plan Update as of this writing. The online open house gives viewers the option to answer guided

TDM Literature Review Key Takeaways

TDM staff conducted a review of industry literature and articles to identify best-practice work being done in TDM and related fields. Topics include COVID-19, equity, sustainability, active transportation planning, parking, and housing. The full review and sources can be found in Appendix I: Literature Review. Below are selected highlights.

- <u>Vehicle Miles Traveled (VMT) is returning to pre-</u> pandemic levels. Following a dramatic decrease in driving in 2020 due to the COVID-19 pandemic, U.S. vehicle miles traveled (VMT) have been steadily increasing, having returned nearly to pre-pandemic levels. Transit usage has been slower to return, which Bellevue TDM will have to continue to promote transit for all city workers and residents.
- Hybrid/telework workers produce high levels of **<u>CO2</u>**. Counterintuitively, the national literature suggests that teleworkers, and particularly hybrid workers, produce as many, and possibly more, transportation emissions than in-office workers. This is due to teleworkers taking more non-commute trips and not "trip-chaining" recreational or errand trips into their commutes, leading to an overall increase in VMT. Additionally, remote work allows teleworkers to live further from their worksite, creating longer commutes on in-office days. The TDM program currently does not count teleworking days as tripreducing in the CYWB rewards program, but it is recommended that teleworking emissions research is closely monitored moving forward as this will play a major role in TDM and transportation policy moving forward.
- <u>Transportation equity must be at the forefront</u> of planning and policy decisions. Transportation equity is a consideration across the TDM planning

questions and ask Bellevue TDM anything they would like to know regarding the TDM Plan. So far, audience members have submitted "ideas" and feedback to include the need for transit, especially rail service, to be competitive with cars in terms of costs and speed; have Bellhop microtransit service maximize overall transit access; and making biking faster and safer. These comments serve as reminders for Bellevue TDM to increase the viability of multimodal travel options throughout the city.

profession and is incorporated into nearly every aspect of planning and decision-making processes. How different demographics (income, race, gender, age, physical ability, etc.) are affected by and benefit from Bellevue's transportation system must be considered in TDM activities. This approach will help to address longstanding national inequities that have plagued historically marginalized groups, such as highway projects that have divided neighborhoods, limiting access to essential goods and services. Bellevue TDM will have to incorporate inclusive public engagement that promotes multi-modal options that are affordable, reliable, efficient, safe, and easy to use in areas of the city where they are needed the most.

• Car dependency exacerbates societal inequities. Rising car-related transportation costs disproportionately affect low-income households, and from an environmental justice perspective, concerns persist that low-income and communities of color bear the burden of transportation-related emissions. The TDM program's work in reducing drive-alone trips and encouraging and incentivizing non-drive-alone modes is a way to improve transportation equity, a factor that will be a focal point of the program moving forward. The city will research and explore specific ways to further transportation equity in Bellevue through the TDM program.

- <u>Walking and biking are the transportation modes</u> <u>that generate the fewest CO2 emissions.</u> COVID-19 exacerbated walking and biking behavior generally along income lines, and those patterns are persisting– higher income people walk and bike more and lower income people walk and bike less frequently.
- <u>*E-bikes and shared micromobility lead to reduced vehicle emissions.*</u> E-bikes and shared mobility have potential to reduce drive-alone trips and if the city were to take steps to allow shared micromobility in the future, promotion of this option by the TDM program could help maximize its impact.
- *Parking strategies remain the single most effective* <u>TDM tool.</u> Parking cost and availability have a major impact on the drive-alone rate. Many cities both nationally and locally have reduced parking minimum requirements for new development and in some cases eliminated parking requirements altogether. The TDM program should continue work with employers and property managers on good practices for parking management even though with the popularity of teleworking, lack of parking supply is no longer as much of an issue for employers and property managers as it once was.
- Housing and transportation costs together now make up over 50% of national household spending. Housing and transportation costs are inversely correlated in urban areas: Housing costs increase as people live closer to downtown areas, but transportation costs decrease due to more available transit or walking/biking options. Studies have shown that households that move further from downtown

areas into the suburbs, either by choice or due to untenable housing costs, spend enough on increased transportation from car usage to offset housing savings. Increases in availability of transit and other non-drive alone modes can be a significant economic benefit, particularly to low-income households.

Summary and Conclusions

Based on the findings from this plan's TDM Literature Review and non-scientific Community Input Survey, plus the 2017 TDM Attitudinal Research Study, TDM interventions to mitigate identified issues could be useful. Strategies could include expanding vanpooling and carpooling for commuters who live outside of expensive city centers; continuing to work with employers to develop parking management strategies such as daily parking instead of monthly for commuters who have remote-hybrid work schedules; intensifying efforts to maximize employer-provided transit passes and other sustainable commuting amenities for employees; promoting e-bikes and shared micromobility, encouraging walking and biking; and coordinating with other city functions to maximize TDM's reach--with equity as a key consideration.

These and other strategies will be implemented in a travel landscape that has changed significantly in recent years. The pandemic ushered in an increase in telework that reduced the demand for office space, resulting in a change in citywide commuter travel patterns. These and other challenges will be discussed in the following chapter along with a review of other city plans and new non-drive-alone opportunities on the horizon.

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CHAPTER 5: **TDM Planning Landscape**

Over the next ten years, Bellevue TDM will continue to operate in the context of other city plans; work to *be effective in a changing travel landscape largely brought on by the COVID-19 pandemic; and have the* opportunity to promote new transportation options (such as light rail, I-405 BRT and increased buildout of the bike infrastructure network) that will expand options for how people move around the city and the larger region. These new options bring the potential of faster and more convenient transit, safer pedestrian and bicycle routes, and less strain from single-occupant vehicles on the roadway network, helping to address many of the concerns raised by survey respondents in the previous chapter. This chapter of the 2024-2033 TDM Plan covers other key city plans and highlights several transportation trends and projects that will influence TDM in Bellevue over the next decade.



Alignment with Other City Plans

Bellevue's Comprehensive Plan captures the community's vision for the future and provides direction for city regulations and investments. The Comprehensive Plan supports TDM through its goals and policies, as well as mode share targets for commute trips. The TDM section of the Transportation Element indicates that "through implementation of transportation demand management (TDM) strategies, the city helps people reduce the number of trips they take alone in a private vehicle and the vehicle miles they travel." The Transportation Element defines 157 policy objectives across 12 areas, from Transportation and Land Use to Neighborhood Protection. An update of the Comprehensive Plan is slated for City Council adoption in 2024.

► The Comprehensive Plan includes 12 TDM-specific policies, including the following:

TR-9: Coordinating with other Eastside jurisdictions, the private sector, and transit providers to develop and implement uniform or compatible TDM strategies that address the following factors:

- 1. Parking;
- 2. Services to facilitate and increase the use of transit, carpooling, vanpooling, walking, bicycling, and alternative work schedules;
- 3. Other demand management program elements, including marketing, outreach and incentives: and
- 4. Reporting, monitoring, and performance evaluation standards.

TR-10: Require large employers to implement a commute trip reduction program for employees, as mandated by the state Commute Trip Reduction law, and evaluate program effectiveness on a regular basis;

TR-11: Encourage employers to help reduce peak hour commute trips by facilitating employees' use of telework, flexible work hours, compressed work week schedules, and other scheduling options;

TR-15: Provide outreach and assistance to increase awareness of alternatives to driving alone for all types and purposes of trips

The Environmental Stewardship Plan, adopted in 2020, organizes the city's environmental efforts into six focus areas: climate change, energy, materials management and waste, mobility and land use, natural systems and municipal operations²². The mobility and land use focus area, including greenhouse gas emission and vehicle miles traveled targets (reduce emissions by 50% by 2030 and 80% by 2050, and reduce per capita VMT by 50% by 2050), overlaps with the Bellevue TDM program. Within the municipal operations focus area, the Environmental Stewardship Plan also sets drive-alone targets for city employees.²³

The 2018 Smart Mobility Plan covers six key initiatives: shared-use mobility, autonomous and connected vehicles, electric vehicles, real-time traveler information, data management, and traffic management. Most pertinent to TDM is the Smart Mobility Plan's focus on shared-use mobility such as bikesharing, carsharing, and microtransit; and real-time traveler information through digital signs at stops and stations and through mobile app platforms. The Plan acknowledges that shared mobility is key to reducing vehicles on the road to mitigate congestion and identifies real-time traveler information as a core component of building a smarter Bellevue.

The 2023 *Curb Management Plan* provides guidance on how to allocate Bellevue's curb areas among various competing needs and potential uses such as vehicle through movement, passenger loading for ride-hailing, employer-operated shuttles, urban freight, electric vehicle charging stations, parking, micromobility such as e-bike and e-scooter share²⁴, deliveries and on-street dining. The implementation of the Curb Management Plan can support TDM through providing convenient curb space for transit, employer shuttles, carpool/ vanpool pickup and drop-off and micromobility.

The Mobility Implementation Plan (MIP), adopted by City Council in 2022, was developed to focus on multimodal travel in Bellevue and develop performance metrics and performance targets for a city that increasingly moves around by transit, walking, biking and other non-drive-alone modes. This vision for Bellevue is based on the "layered network" concept, which considers the land use context of each mode and the relationships between modes to create an integrated, complete and connect network. Performance metrics include level of traffic stress (LTS) for bicycle travel; sidewalks along both sides of arterials and spacing of mid-block pedestrian crossings; and transit travel times relative to vehicle travel times in corridors between activity centers. This approach aligns with the TDM program's goal of increasing uptake of non-drive-alone travel modes in Bellevue.



Multimodal concurrency-The city amended its Comprehensive Plan in December 2021 to align the new approach to concurrency with the Washington State Growth Management Act, which requires "that transportation improvements or strategies to accommodate the impacts of development be made concurrent with development." This new approach to concurrency allows Bellevue to consider transportation facilities for all mode accommodation when evaluating the capacity of the transportation network to support

new development. The new approach focuses on person trips, regardless of what mode of travel they choose.

The Transit Master Plan, adopted in 2014, identifies priorities needed to establish a "frequent transit network" that meets the needs of most workers and residents, in partnership with King Country Metro and Sound Transit. Key to the Transit Master Plan vision are two components close to the heart of the TDM program: supporting Bellevue's growth and supporting sustainable mode choice. Much like the other plans discussed in this section, the Transit Master Plan is designed to meet the realities of a growing city by offering sustainable alternatives to driving and bring about a more efficient transportation system.

The 2015 Pedestrian and Bicycle Implementation *Initiative* aims to further the city's pedestrian and bike networks established in the 2009 Pedestrian and Bicycle Transportation Plan. As of 2019, 55.7% of arterials have sidewalks on both sides, and 53.8% of bicycle corridors and intersections meet their intended level of traffic stress (LTS)-LTS is the bicycle rider experience related to speed, street traffic volume, and comfort level. In both instances, the city is just over halfway to the point of meeting the city's long-term vision of a more walkable and bikeable Bellevue. Included in the PBII's ten "program principles" are calls to "coordinate with other efforts underway in Bellevue," "identify partnership opportunities" and "refine existing metrics." These specific goals all directly relate to TDM activities in Bellevue, which can help PBII efforts to increase walk and bike modal share in Bellevue by promoting both modes and projects that are coming online to increase participation. Building further on prior bicycle planning initiatives, the city started work in 2023 on the Bike Bellevue project, which is aimed at implementing bicycle network improvements in more urban areas of the city, including Downtown, Wilburton and BelRed.

Bellevue's Diversity Advantage Plan serves to support the City Council's vision statement, which opens with: "Bellevue welcomes the world. Our diversity is our strength." The plan is guided by five principles: Access, equity, inclusion, opportunity, and understanding cultural competency. The plan lays out specific Cultural Competence Objectives, which include growing a "culturally competent economy" in Bellevue, attracting a diverse workforce, empowering entrepreneurs from

²² Municipal operations refer to topics and targets that are included in the other five areas but specific to the City of Bellevue's operations

²³ The 2019 city employee drive alone rate to City Hall was 43%.

²⁴ As of this writing, motorized scooters are generally prohibited in Bellevue on sidewalks or streets with a speed limit higher than 25 miles per hour or higher. Bellevue City Code 11.48.210.

diverse backgrounds, providing community services to facilitate growth, and making available culturally specific goods and services. The TDM program in Bellevue shares these goals and objectives and plays a key role in equitably connecting people to desired destinations. This framework will help ensure that

historically and currently marginalized communities benefit from TDM activities. Bellevue TDM seeks to prioritize efforts for marginalized communities when developing strategies that will help residents and workers across the city reach destinations more affordably and efficiently.

Trends Affecting TDM Landscape in the Next Decade

To set the TDM program up to be as effective as possible over its 2024-2033 planning horizon, several topics impacting transportation were identified and reviewed. This section should not be considered a definitive list of topics impacting transportation in Bellevue in the next decade, nor does it precisely define how these topics will evolve in the next decade. However, it is crucial for TDM programming to take into account unfolding trends in transportation and be adjusted as needed. The selected topics below explore key trends and related questions that TDM staff will need to consider in the coming decade.

COVID-19

Before looking ahead to trends that may impact the next ten years of transportation in Bellevue, it is important to take a brief look backward at the COVID-19 pandemic and the dramatic and ongoing effect it has had on transportation.

After a drop in driving in 2020, driving nationwide has increased, but remains slightly lower than prepandemic levels. The Federal Highway Administration estimates that cumulative vehicle miles traveled (VMT) in 2022 was 3.17 trillion miles – 1% higher than 2021 but 3% below 2019 (Figure 5.1).

The commute trip drive-alone rate for Bellevue residents decreased from 64.6% in 2013-2017 to 47.4% in 2018-2022. In the same time periods, the commute trip drive-alone rate for people working in Bellevue declined from 72.1% in 2013-2017 to 63% in 2018-2022. Both figures have been influenced in recent





years by an increase in teleworking, largely due to the pandemic²⁵. (In the longer term, the commute drivealone rate for Bellevue residents and workers has been trending downward since 1990, when it was 77.2% and 82.3%, respectively.

Further, this change in commute pattern appears not to be spread evenly across workdays. While a comparable dataset is not available for Bellevue, Commute Seattle's annual 2022 Commute Survey of 64,000 workers in Seattle showed that Tuesdays, Wednesdays, and Thursdays have much lower rates of telework across Seattle compared to Mondays and Fridays (Figure 5.2); this pattern may exist in Bellevue as well²⁶.

Understanding and addressing this variability will be key for TDM work. Following the pandemic, Bellevue TDM and other comparable programs in the region are focused on mitigating a bump in driving-alone commuting on in-office days that has been occurring as more workers return to the office.



Figure 5.2: In 2022 in Seattle, Mondays (52%) and Fridays (57%) had a much higher remote rate than Tuesdays (39%), Wednesdays (39%) and Thursdays (41%).

The Commute Seattle report found that 75% of noncommute trips among Seattle-based respondents were made using drive-alone travel. This figure highlights another key challenge facing TDM in a post-COVID world: Teleworking does not necessarily decrease vehicle emissions. Across the country, teleworkers tend to have more complex schedules, visiting more locations and thus increasing actual travel, even if commute travel has decreased.²⁷ Two driving forces behind this increase in travel for teleworkers may be that teleworkers do not "trip-chain" by consolidating non-work trips into their commute; and that the option to work remotely allows teleworkers to live farther from their workplace, lengthening their commute trips.²⁸

COVID-19 additionally led to an immediate decrease in transit ridership in Bellevue, which has not yet returned to pre-pandemic levels. From 2003 to 2016, the average daily number of boardings and alightings ("ons and offs") increased from approximately 21,900 to 50,100. After a drop to 11,700 in fall 2020, the "ons and offs" increased to 30,100 in spring 2022.

²⁷ Rongxiang Su, et al. Unveiling daily activity pattern differences between telecommuters and commuters using human mobility motifs and sequence analysis. (2022).

²⁸ Reilly, P.J and Tawfik, A.M. (2022) Do Telecommuters Make Fewer Trips? An Analysis of Telecommuting Travel Behavior in Urban and Rural Communities in the USA | International Conference on Transportation and Development 2022. Retrieved 2 December 2022, from https://ascelibrary.org/doi/10.1061/9780784484340.006

²⁵ U.S. Census American Community Survey 5-Year Estimates.

²⁶ Kirk Hovenkotter. 2022 Seattle Commute Survey Results. (2023). Retrieved 31 May 2023, from https://www.commuteseattle.com/2022survey/

Retrieved 2 December 2022, from https://www.sciencedirect.com/science/article/abs/pii/S0965856421000574

The Future of Telework

COVID-19 dramatically changed how workers commute. 2019, 5.2% of Bellevue workers telecommuted; in 2022 this rose to 28.5%. Nationally, teleworking increased from 5.7% in 2019 to 17.9% in 2022.29

Key trend questions include:

- 1. How persistent will higher telework rates last?
- 2. Will telework remain varied among weekdays?
- 3. What is the equilibrium of in-office days moving forward?

Office Spaces

The increase in telework and hybrid work has lowered demand for downtown office spaces nationally and is shifting how companies and property managers approach office buildings, particularly in downtowns and transit-accessible areas.

Key trend questions include:

- 1. Will the ratio of residential to office spaces increase in denser urban centers such as those in Bellevue?
- 2. What physical changes will employers make to accommodate a hybrid workforce? Will employers provide more flexible workspaces that, for example, include office hoteling, where workers reserve desk space on an as needed basis in an effort to reduce overall office space?

Transit Service

COVID-19 has led to changes in transit use and service that could impact the success of the TDM program and the strategies that will be most successful moving forward. The most cited reasons for Bellevue residents and workers not utilizing public transit in the non-scientific TDM Plan Community Input Survey (Appendix II) is a lack of frequency and convenience.

Key topics for exploration include:

1. Factors leading to the decline in ridership for both commute trips and non-commute trips.

- 2. The anticipated future transit ridership level based on hybrid work as well as the launch of new transportation improvements and transit options in and around Bellevue.
- 3. Additional variables such as operator shortages and other factors.

Housing Costs & Lengthening Commutes

From 2018 to 2022, average rental costs in the western U.S. increased by 21%.³⁰ In Bellevue, the median home sales price increased from just over \$800,000 in early 2019 to roughly \$1,400,000 in early 2023, (though the median sale price for homes in Bellevue declined by nearly 20% year over year from April 2022 to April 2023³¹). The dramatic increases in housing cost pushes workers from central employment centers, where housing tends to be more expensive, into areas and towns farther away, thereby creating longer commute times and distances, and reduced viability of transit, biking, and walking. This trend suggests that the TDM program should consider the following topical areas in the coming decade:

- 1. Ongoing increasing commute length (time and distance), especially for workers in Bellevue.
- 2. The potential to promote and incentivize vanpool and carpool to serve in-person and hybrid workers who have been compelled by housing costs to live in areas with little to no transit service.
- 3. Shared transportation technology innovations, such as flexible, on-demand carpooling and vanpooling, that could potentially be used by workers commuting into Bellevue from outlying areas.
- 4. Housing policy changes at state- and city-wide levels, including those implemented by the city's Community Development Department and Council.
- 5. Upcoming transportation improvements and transit options such as I-405 express toll lanes, Stride (I-405 bus rapid transit), and light rail extensions and how they can be leveraged to mitigate long commutes.

³⁰The western U.S. is defined here as Washington, Oregon, California, Nevada, Idaho, Montana, Wyoming, Utah, Colorado, Arizona and New Mexico. Katherine Schaeffer. Key facts about housing affordability in the U.S. (2023). Retrieved 18 May 2023, from https://www.pewresearch.org/short-reads/2022/03/23/key-facts-abouthousing-affordability-in-the-u-s/

³¹ Bellevue Housing Market. (2023). Retrieved 18 May 2023, from https://www.redfin.com/city/1387/WA/Bellevue/housing-market#transportation

Emerging Transportation Technologies

A decade ago, emergent technologies and services such as ride-hailing, real-time app-based transportation information, shared micromobility, and more were barely in the public consciousness or still years away. Similar technologies and services that will feel commonplace in 2033, at the horizon of this TDM Plan, may be unknown or in the early stages of prominence in 2024. The TDM program should keep abreast of and adjust its offerings to accommodate the technological changes that significantly impact transportation in Bellevue, working with other city and regional teams to understand, support where appropriate, and leverage these changes.

Non-Drive-Alone Options Are Expanding in Bellevue

As mentioned earlier in this chapter, there are several exciting new non-drive-alone options on the horizon for Bellevue workers and residents. These projects will transform how people travel in and around the city and beyond. From the opening of East Link light rail service, to the Stride BRT routes that will run on I-405, to the Grand Connection that will expand the non-motorized route through downtown as well as connections to an expanding bike network, these new options will allow for more travel choices that are affordable, convenient, and environmentally friendly.

Sound Transit 2 Line light rail transit (LRT): In

April 2024, Sound Transit opened the first phase of the East Link LRT (known as the 2 Line). In 2025, the entirety of the line will open, connecting Bellevue and Downtown Redmond to Mercer Island and Seattle. The 2 Line spans 14 miles and includes twelve stations, six of which are in Bellevue. Travel times will be competitive with car travel, a ten-minute trip from Redmond Technology station to downtown Bellevue, as compared to a 10-22-minute trip by car, depending on traffic conditions. When Sound Transit opens the full East Link light rail extension in 2025, daily ridership is expected to grow to 43,000-52,000 within a few years.³²

I-405 Express Toll Lanes: In summer 2025, the new I-405 Express Toll Lanes, connecting Downtown Bellevue to the south, are anticipated to open.

The project includes multimodal transportation and safety improvements from Renton to downtown Bellevue, connecting with the express toll lanes from downtown Bellevue northward. The Express Toll Lanes will allow for more reliable non-drive-alone travel choices, including transit, carpools, and vanpools, and are designed to improve trip reliability and speeds for all users. Furthermore, the project and will support the new I-405 Stride (BRT) service between Lynnwood and Tukwila that will include a stop in downtown Bellevue. Registered vanpools and transit are permitted toll-free in the express toll lanes with a pass and carpools with enough passengers (occupancy requirement depends on the time of day) can use the lanes for free with a Flex Pass.

Sound Transit's Stride bus rapid transit (BRT): The new BRT service will benefit from the I-405 Express Toll Lanes that will help improve bus speeds, frequency, and reliability. Stride will consist of three routes: S1 (I-405 south route, replacing Route 560), S2 (I-405 north route, replacing Route 535) and S3 (replacing Route 522). The bus fleet will also include the agency's first battery electric buses to include double-decker and 60-foot articulated buses. Currently, traveling by bus from Bellevue to Burien takes 55 minutes, and with the new BRT service this trip will take only 38-42 minutes. Traveling north from Bellevue to Lynnwood via bus takes 53 minutes and with the new service will be cut down to 33-38 minutes. The new BRT system will connect to East Link LRT service at three stations, including the Downtown Bellevue Transit Center, with service anticipated to start for S1 in 2026, S2 in 2027, and \$3 in 2027-2028.33

King County Metro's K Line: In addition to Metro's existing B Line, which connects downtown Bellevue to downtown Redmond, the K line will be coming online in 2030, for a total of two RapidRide routes for the Eastside. The K Line will provide convenient connections to the B Line and other transit routes such as Sound Transit's new 2 Line and the upcoming Stride BRT. The K Line is designed to be fast, reliable and frequent. The route will travel from the Eastgate Park & Ride in Bellevue, through downtown Bellevue, to Totem Lake Transit Center in Kirkland.³⁴

²⁹U.S. Census Bureau American Community Survey 1-Year Estimates, 2019 & 2021.

³² East Link Extension. (2024). Retrieved 17 February 2024, from https://www.soundtransit.org/system-expansion/east-link-extension ³³ Stride bus rapid transit. (2024). Retrieved 17 February 2024, from https://www.soundtransit.org/system-expansion/stride-bus-rapid-transit.

Eastrail Multi-Use Corridor: With a few segments already open in Bellevue, the Eastrail corridor will ultimately provide 42 continuous miles of a highquality pedestrian and bicycle trail and preserve opportunities for additional transportation uses in the future. The trail will connect the communities of Renton, Bellevue, Kirkland and Woodinville, and will end in Snohomish County with a connecting spur trail south to Redmond. The project will improve regional mobility by connecting Eastside communities to existing trails, transit, and residential and commercial areas. The corridor will provide non-motorized active transportation options and expand recreational opportunities that will increase access for people along the route, thereby improving public health and air quality. The city is working with King County to support its design and is developing key trail crossings and connecting links.

The *Grand Connection* is a series of projects and initiatives designed to create a high-quality pedestrian experience from the Meydendauer Bay shoreline to the Eastrail in Wilburton. The effort enhances the existing downtown pedestrian corridor and includes a planned connection from downtown Bellevue eastward to the Eastrail corridor. The aim is to create beautifully designed spaces for human connection, creative inspiration, as well as efficient, comfortable movement. The Grand Connection will provide opportunities for active transportation like walking, biking, and rolling and will include spaces for outdoor dining. The corridor will help the city meet its longer-term goal of creating a more livable, economically competitive, and environmentally sustainable city.

Summary of Landscape & Trend Implications for TDM

In the coming years, Bellevue TDM will need to stay on top of trends impacting travel choices throughout the city. Rising housing prices have pushed people to more affordable areas, often farther away from worksites; more people are teleworking, reducing the need for office spaces; and fewer people are returning to transit after the pandemic. Furthermore, teleworkers nationally are taking more non-commute trips and not "trip-chaining" recreational or errand trips into their commutes, leading to an overall increase in vehicle miles traveled. These and other factors are impacting why, how, and when people travel and are continuing to unfold, with significant implications for Bellevue TDM.

Bellevue is on the precipice of several exciting project openings that will support more non-drive alone transportation options for travelers that will be more convenient, timely, and affordable. East Link light rail service, Stride BRT, I-405 Express Toll Lanes, Bike Bellevue, Eastrail, and the Grand Connection all provide more sustainable transportation options. With so many projects coming down the pike within the 2024-2033 TDM Plan planning horizon, there are great opportunities to substantially increase non-drive-alone trips across the city through TDM work that engages with and makes the most of these new developments.

The next and final chapter presents the 2024-2033 TDM Plan strategies, based on the demographic analysis, surveys, market research, and TDM landscape analysis findings laid out in this and previous chapters. Several strategies from the previous 2015-2023 TDM Plan have been carried over, and some have been modified. In addition, new strategies have been added. All are intended to increase non-drive-alone travel in Bellevue.

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³⁴ RapidRide K Line. (2024). Retrieved 2024, from <u>https://kingcounty.gov/en/dept/metro/travel-options/bus/rapidride/k-line.</u>



CHAPTER 6: **Strategies & Implementation Framework**

This final chapter of the 2024-2033 TDM Plan establishes planned TDM program strategies, which show how we aim to achieve the plan's vision and goals. The strategies are based on the analysis of demographics and market surveys, and a review of TDM industry research and best practices. Furthermore, as discussed *in previous chapters, since the last plan, the world has changed, largely due to the COVID-19 pandemic;* therefore, strategies laid out in this plan will include consideration of the changed travel landscape in which Bellevue operates its TDM Program.

Building on the overall success of past and current Bellevue TDM activities, the original 21 strategies from the 2015-2023 TDM Plan are carried forward, modified, or combined, since they reflect "tried and true" TDM methods that have proven themselves in terms of both feasibility and results. In addition, new strategies are added to address longstanding and new TDM challenges and opportunities. The strategies presented here account for demographic trends that are occurring, the results of public opinion surveys and market research, and the anticipated environment in which the program will operate.

The strategies in this chapter are informed by key takeaways from earlier chapters and implications related to those takeaways. The key takeaways include the following:

- Rising housing prices have pushed people to more affordable areas, often farther away from worksites, necessitating a focus on options such as vanpool/ carpool, shuttles to fixed route transit.
- Bellevue is on the precipice of several exciting project openings that will support more non-drive alone transportation options (East Link light rail service, Stride BRT, I-405 Express Toll Lanes, Bike Bellevue, Eastrail, and the Grand Connection), which should be a focus of Bellevue TDM promotion.
- Most of Bellevue's multi-family housing is located in frequent transit networks; therefore, prioritizing outreach efforts in these areas and tailoring the outreach to meet the needs of and services available to this group, can help the city effectively reach more people.

• Based on the findings from the plan's TDM Literature Review and non-scientific Community Input Survey, plus the 2017 TDM Attitudinal Research Study, effective TDM strategies would include expanding vanpooling and carpooling for commuters who live outside of expensive city centers; continuing to work with employers to develop parking management strategies such as daily parking instead of monthly for commuters who have remote-hybrid work schedules; intensifying efforts to maximize employer-provided transit passes and other sustainable commuting amenities for employees, promoting e-bikes and shared micromobility, encouraging walking and biking, and coordinating with other city functions to maximize TDM's reach--with equity a key consideration.

Original 2015-2023 TDM Plan Strategies: (bolded strategies were implemented)

- 1. Requirement-Based Programs
 - a. Commute Trip Reduction (Employers)
 - b. Commute Trip Reduction (Property Managers of buildings with Transportation Management **Program**)
- 2. Product Subsidies and Discounts
 - a. Transportation Benefit Rebates (Employers & **Property Managers**)
 - b. Transportation Mini-Grants (Employers & Property Managers)
 - *c. Emergency Ride Home (Workers and Residents)*

- 3. Education and Assistance
 - a. Commute Program Consulting Services (Employers & Property Managers)
 - b. Program Expert Consulting Services (Employers & Property Managers)
 - c. Travel Information Assistance (Workers, Residents, and students via Employers & **Property Managers**)
 - d. Rideshare and Ridematch Promotion (All Audiences)
 - e. School Programs (K-12 Students & Parents)
- 4. Incentives and Rewards
 - a. Trip Logging and Rewards Program (Workers, **Residents**, and Students)

- b. Commute Challenge (Workers, Residents, and *Students*)
- *c. Parking Cashout (Employees via Employers)*
- 5. Marketing and Promotions
 - a. TDM Strategy Marketing and Promotion (All Audiences)
 - b. Maintenance and Promotion of ChooseYourWayBellevue.org (All Audiences)
 - c. Carsharing Promotion (Employers & Individuals)
 - d. Recognition (Employers & Property Managers)
 - e. Email Newsletter (All Audiences)
- 6. Research, Planning and Coordination
- a. Research

Equity Considerations

Incorporating equity into the TDM strategy development process is crucial to ensure that marginalized groups benefit from Bellevue TDM programming. This approach aligns with the upcoming Diversity Advantage Plan update goals of strengthening bonds with communities, integrating equity principles into every aspect of city plans, policies, procedures and practices, and enhancing the quality of life for residents by improving access to transportation, healthcare, safety and other essential services.³⁵

Historically, within the larger transportation planning context, marginalized groups have been left out of the planning process and have been negatively impacted by infrastructure projects in terms of mobility and accessibility, public health and safety as well as the cohesion and cultural and economic vitality of their communities. The U.S. Department of Transportation's 2045 Beyond Traffic report explains that the building of the interstate highway system actively excluded people of color resulting in the undermining of community tax-bases and the decline of regional transit system ridership.³⁶ Furthermore, anecdotally, within TDM (an implementation-focused component of transportation planning), marginalized groups have been less likely

to receive commute benefits from their employers, and TDM messaging may have been less likely to reach marginalized populations.

Bellevue TDM staff are committed to tailoring TDM programming to better reach marginalized groups with the aim of improving mobility and accessibility, public health and safety, and community cohesion and vitality. Further, Bellevue TDM staff are committed to finding out from these communities what the barriers are that have prevented them from receiving TDM messaging and offerings, using the website, mobile app and tools; and seeing benefit in choosing non-drive-alone modes for getting around.

Incorporating equity into the TDM strategy development process is crucial to ensure that marginalized groups benefit from Bellevue TDM programming. This approach aligns with the upcoming Diversity Advantage Plan update goals of strengthening bonds with communities, integrating equity principles into city plans, policies, procedures, and practices, and enhancing the quality of life for residents and workers by improving access and mobility for all, particularly marginalized groups.37

Historically, within the larger transportation planning context, marginalized groups have been left out of the planning process and have been negatively impacted by infrastructure projects in terms of mobility and accessibility, public health, and safety as well as community cohesion and cultural and economic vitality. The U.S. Department of Transportation's 2045 Beyond Traffic report demonstrates that people of color were left out of the planning process for the building of the interstate highway system resulting in the undermining of community tax-bases and the decline of regional transit system ridership. Further, it shows how these communities were bisected by highway projects, which again, negatively impacted community cohesion and vitality.³⁸ In the Pacific Northwest, the Puget Sound Regional Council (PSRC) is addressing past inequities through their VISION 2050 plan and is working with the Equity Advisory Committee to create a Regional Equity Strategy.³⁹ This strategy framework

will include tools and resources to identify existing inequities across the region and the City of Bellevue will consider these recommended strategies to promote more equitable land-use and transportation policies and actions.⁴⁰

Within TDM (an implementation-focused component of transportation planning), marginalized groups have been less likely to receive commute benefits from their employers, and TDM messaging may have been less likely to reach these populations. Bellevue TDM staff are committed to tailoring TDM programming to better reach marginalized groups with the aim of improving mobility and accessibility, public health and safety, and community cohesion and vitality. Further, Bellevue TDM staff are committed to finding out from these communities what the barriers are that have prevented them from receiving TDM messaging and offerings, using the website, mobile app and tools; and seeing benefit in choosing non-drive-alone modes for getting around.

The city will strive towards ensuring that all marketing, outreach, and education efforts reach and are legible by marginalized populations; that the CYWB website continues to be accessible to all audiences and that we continue to promote CYWB programs and local mobility services that provide options for low-income and other marginalized community members that are relevant to their needs and circumstances.

³⁷ City of Bellevue Diversity Advantage Plan Update. (2023). Retrieved 17 February 2024, from <u>https://bellevuewa.gov/city-government/departments/city-</u>

³⁸ U.S. Department of Transportation. Beyond Traffic 2045. (2017). Retrieved 17 February 2024, from https://www.transportation.gov/policy-initiatives/beyond-

³⁵ City of Bellevue Diversity Advantage Plan Update. (2023). Retrieved 17 February 2024, from https://bellevuewa.gov/city-government/departments/city-managersoffice/diversity-advantage-initiative/diversity-advantage-plan-update

³⁶ U.S. Department of Transportation. Beyond Traffic 2045. (2017). Retrieved 17 February 2024, from https://www.transportation.gov/policy-initiatives/beyondtraffic-2045-final-report

managers-office/diversity-advantage-initiative/diversity-advantage-plan-upda traffic-2045-final-report

³⁹ Puget Sound Regional Council (PSRC). Vision 2050 Equity-related Policies and Actions. (2020). Retrieved 21 February 2024, from VISION 2050 | Puget Sound Regional Council (psrc.org).

⁴⁰ The Vision 2050 Equity-Related Policies and Actions includes transportation policies such as, "MPP-T-9: Implement transportation programs and projects that provide access to opportunities while preventing or mitigating negative impacts to people of color, people with low incomes, and people with special transportation needs."

► CATEGORY 1: Requirement-Based Programs

• Two requirements-based programs are anticipated to continue: Commute Trip Reduction (CTR) and (TMPs), which are required by state law (CTR) and City Code (CTR and TMP). The TDM program provides assistance to relevant employer and property manager audiences with meeting requirements and bringing about successful drive-alone trip reduction through these programs.

Category 1 strategies may include, but are not necessarily limited to:

1-1 Commute Trip Reduction (CTR) (Audience: CTR-affected employers)

The City will continue to implement its ongoing CTR program that has been in place since 1993 and is based on state law (Revised Code of Washington 70A.15.4040) and City ordinance (Bellevue City Code 14.40). In order to do so, the city will work with affected employers, which are generally those employers with 100 or more full-time employees who start their workdays between 6:00 and 9:00 a.m. for two or more days per week. In implementing the program, the city works to ensure their compliance with the law and helps to engender successful trip reduction programs. Activities for which the city provides assistance include general employer program development; informing employees of options and employer-provided subsidies; marketing and promotions to encourage non-drive-alone commuting; surveying; and reporting. Specific activities are laid out in the 2015-2019 CTR Plan Update provided as Appendix A. (CTR Plan Updates have been extended by the Washington State Department of Transportation through mid-2025 and are slated to be updated in 2025 through 2029.)

1-2 Transportation Management Programs (TMPs) (Audience: property managers of buildings conditioned with a Transportation Management Program)

To mitigate transportation impacts of development, Bellevue City Code (BCC 14.60.070) requires developers of large real estate projects to develop and implement Transportation Management Programs, or TMPs.

Required TMP elements vary by land use and size of project and may include:

- Designating a transportation coordinator for the property;
- Posting and distributing information about commuting by transit, rideshare, foot, bicycle, and other alternatives to driving alone;
- Providing preferential parking locations to carpools and vanpools;
- Providing incentives such as transit pass subsidies and reduced-price carpool/vanpool parking to commuters who choose not to drive alone; and
- Providing low-cost taxi rides home to onsite employee transit riders, carpoolers and vanpoolers who encounter an unexpected need to leave early or stay late owing to illness, home emergency or employer requirement.

Code revisions in 2017 allow owners of buildings permitted after that time greater flexibility in choosing elements to implement at their building. The city supports TMPs by monitoring and ensuring that property managers of buildings with TMPs are complying with the requirements of their TMP agreements. These requirements may include provision of program elements as described above; reporting; and measurement. Support work is ongoing by the city and anticipated to continue throughout this planning horizon.

CATEGORY 2: Product Subsidies and Discounts

• Products such as ORCA transit passes purchased by employers for their employees, and for organizations to try these products, the costs can be subsidized or discounted on a managers (for conducting their own trip reduction programs), or directly to individuals.

Category 2 strategies may include, but are not necessarily limited to:

2-1 Transportation Benefit Rebates (Audience: employers/property managers)

Provide transportation benefit discounts or rebates for employers or commercial/residential property managers that provide such benefits to their employees and/or tenants. Promote and transmit ORCA transit pass "Business Passport" or "Business Choice" program rebates to Bellevue employers for providing Passport and/or Choice programs to their employees. The ORCA Passport product, in particular, is a key element of this plan. It is purchased for all employees or tenants, and typically allows for unlimited rides on multiple transit agency services, plus vanpool and guaranteed ride home subsidy. Pricing is unique in that the employer essentially pays based on how much the product is used by employees. Employees can also choose to directly subsidize transit passes for their employees through the ORCA Business Choice program. In addition, the city TDM program may provide employers/property managers rebates for subsidizing their employees' commutes by other types of non-drive-alone modes. This strategy could include promotion/marketing for a new residential Passport program to Bellevue residential property owners, in particular those on the frequent transit network.

Background/Justification: This strategy makes it easier for employers to try transit agency ORCA business products by reducing the initial cost. In a time when attracting and retaining employees is becoming more of a *challenge, providing ORCA Passport and Choice products can give an employer that competitive edge. Other* benefits that would appeal to employers and employees alike during a time when cost of living and environmental impacts weigh heavily, would be the employer's ability to save with discounted flat-rate pricing, signup discounts and tax benefits and the employee having the opportunity to choose sustainable commuting options, saving greenhouse emissions and reducing congestion. These products can contribute to creating a healthier and less stressed workforce.

2-2 Transportation Mini-Grants (Audience: employers/property managers)

Based on a competitive application process, provide mini-grants (e.g. ~\$10,000) to employers and/or property managers for minor capital items (i.e., bike racks, showers changing rooms, real-time transit displays, etc.); trip reduction campaigns; or other specific trip reduction activities proposed by an employer or building/ office campus (i.e., events and webinars for building tenants, parking management strategies etc.) to meet their particular needs. These mini-grants may also be provided as "turnkey" promotions designed and/or implemented by city TDM program staff to reduce staff time impact on the employer. RideshareOnline trip logging/incentive campaigns are an example.

Background/Justification: Studies have shown that employees are more likely to bike to work if they have access to shower facilities and bike parking. Further, employers and property managers can achieve higher employee/ tenant attraction and retention rates in a competitive hiring environment, and a positive public image as a leader *in environmental conservation via sustainable transportation by encouraging employees to choose sustainable* commute options and providing them with the infrastructure and support they need to do so.

free rides home from work in the case of an emergency, offer solutions for employers and property managers seeking to reduce commute trips at their workplaces. To make it easier reimbursement basis for a limited trial period. Subsidies may be provided to employers, property

2-3 Emergency Ride Home (Audience: workers and, possibly, residents)

Provide for the cost of a free ride home to individual workers or residents in Bellevue (most likely to be provided by a taxi or for-hire ride services company) in case of emergency, up to a threshold number of rides per year and threshold distance limit. For employers and property managers, promote the provision of Emergency Ride Home for employees and tenants, and include assistance with this program.

Background/Justification: Being reassured of a way to get home in the case of emergency can make people more willing to give up having their private vehicles with them at work and could be especially beneficial to those who otherwise do not have this service provided by their employer or building manager.

CATEGORY 3: Education and Assistance

- The city can help Bellevue workers, residents, students and tourists comprehend the multitude of available transportation modes-transit, carpooling, vanpooling, walking, bicycling, and telework/compressed work week options-and provide assistance using these modes.
- The city can also help employers and property managers understand what tools, products and resources are available to help them help their employees and tenants with non-drive-alone travel. (Tools and products include transit passes for employees; other non-drive alone mode subsidies and infrastructure amenities to facilitate use of non-drive-alone modes; and actions such as parking management to make parking a daily instead of monthly choice for hybrid workers.)
- As density increases in downtown, and more people are using non-drive-alone modes, coupled with a consistent flow of new and innovative micro-mobility devices (e-scooters, onewheels, e-bikes, etc.), and increased availability of real-time transit information and multimodal trip planning tools, the transportation system is becoming more complex. For-hire, ride services are on the rise overall (although Zipcar is the only service currently available in Bellevue) as are first/ last mile on-demand micro-transit solutions (such as the Visit Bellevue-sponsored BellHop), and ride-hailing services like Lyft and Uber are still relevant and are an option non-drivers can use for those trips that cannot be taken by transit, biking, or walking. The city can keep people on top of new apps and tools, and how to use them to plan their trips. This includes working with employers and property managers so they can similarly assist their employees and tenants.

Category 3 strategies may include, but are not necessarily limited to:

3-1 Commute Program Consulting Services (Audience: Employers/Property Managers)

Provide free consulting services for employers and property managers, conducted by Bellevue TDM program staff familiar with available transportation program options and benefits, and tailored to meet the needs of the particular business or building. Consultations are to be offered in addition to support already provided to employers affected by the state CTR law and property managers needing to adhere to TMP requirements, with a focus on organizations not receiving assistance through those programs. Assistance includes marketing of services via targeted outreach or workshops/webinars to initially engage employers/property managers, followed by the offer of individual consultations for those interested. Also, may include assistance with additional activities such as employer/property manager "before and after" mode share surveys to assess status and measure program/campaign impact, and assisting with employee transportation fairs and other events.

Background/Justification: This service has been ongoing since late 2007 and has been well-received. From 2007 through 2022, 330 employers engaged with the program through receiving consultation assistance, attending a workshop, or participating in a mini-grant or transit rebate program. This is roughly 8% of the target audience (approximately 4,000 employers with five or more employees). Prior analysis from 2016 indicates that 36 percent of the engaged employers have started or improved commute benefits for their employees. This service helps those who would otherwise be unfamiliar with the various options and products available, such as ORCA transit pass products; other program subsidies; creating online trip logging networks through the *RideshareOnline system; carsharing services; telework; etc.*

3-2 Program Expert Consulting Services (Audience: Employers/Property Managers)

Hire consultant experts to be available to employers, and potentially for property managers, for consultation on highly technical/specialized industry topics beyond the expertise of Bellevue TDM staff, on subject matters of demonstrated interest such as hybrid work setup or bike parking design.

Background/Justification: Current highly technical/specialized industry topics that employers and property *managers could benefit from consultant analysis and guidance on, include:*

- and encourage employee attraction and retention
- *monthly parking passes. The effort could be scalable to the level of interest.*
- (the sharing of a worksite by workers employed by different organizations).

3-3 Travel Information Assistance – Real-Time and Longer Term (Audience: Individual workers, residents and students, although audience may be reached through employers/ property managers).

Help individuals navigate the range of non-drive-alone transportation options. Inform people how to use non-drive-alone modes, especially through the ChooseYourWayBellevue.org website. Provide infographics and blog articles about new bus and light rail service and bike/pedestrian infrastructure, on-demand microtransit options, first mile/last mile solutions for low-density areas, the importance of transit-supportive land use and public/private partnerships to spur affordable transit-oriented development, mechanisms for travelers to plan and pay for their non-drive alone trip, including for people without bank accounts or smartphones, using the King County Metro ridematching system through the Choose Your Way Bellevue online portal and trip planning and trip making apps that help identify the best mode for the trip. Where available, educate audiences about how to best navigate the plethora of real-time travel information sources for transit, bike facilities and parking, carsharing, taxis/for-hire drivers, ridesharing, on-demand microtransit, casual carpooling, walking, etc. Exposing travelers to tools that help them compare these more sustainable options to driving and parking, in terms of cost, time, greenhouse gas emissions, and other factors could also be included.

Popular tools include apps and public screens for multimodal trip planning, real-time departure/ arrival information, carpooling "on the fly," and e-hail apps for taxi and for-hire ride services as well as for ridehailing services (i.e., Lyft and Uber). Information may include mode options, arrival/travel times, costs, distance, topography, and greenhouse gases removed.

• The right telework balance post-Covid, that would be financially viable, maintain sufficient productivity,

• Efficient management of parking resources since parking can be a complex topic that requires specialized skills that employers typically do not have in-house. The activity would help employers identify cost tradeoffs between provision of parking and provision of transit subsidies and promotion of daily versus

• Hoteling (a practice in which desk spaces are shared over time according to a schedule) and coworking

Encourage or facilitate the provision of public real-time transit and non-drive- alone travel mode information at key geographic locations such as transit centers, park-and-rides and key transit stops and buildings, via signage and/or kiosks. Provide interactive maps and/or mapped information on topics such as park-and-ride space availability; through-block pedestrian connections; and public right-of-way (ROW) and building bicycle amenities. As appropriate, work in conjunction with city, regional or transit agency efforts to improve the online trip planning experience including web-based information and/or interactive maps.

Incorporated into this effort is utilizing web-based platforms for distributing information. This includes ongoing operation and maintenance of fresh, up-to-date informational content on the city's one-stop travel options website, <u>www.ChooseYourWayBellevue.org</u>. (See more information in Category 5 below.)

The trip logging/incentive program CYWB Rewards currently provides assistance with ridematching and trip planning and serves as a component of this strategy. This strategy also includes creation and distribution of additional map tools, multi-family residential development and employer/property manager worksite TDM Welcome Kits, and resource brochures (for those travelers not comfortable using computers or mobile technology) on topics such as bicycle amenities and facilities, park-and-ride lots, pedestrian guides, etc. Continuation of existing guides is anticipated; these include a Bellevue Bike Map and a 2 Line Access map, a Downtown Pedestrian Guide, Welcome Kits, and a brochure describing key destinations one can reach by bus and light rail. Additional resources may be developed. If feasible, online, translated, interactive versions of these resources will be considered.

Background/Justification: Trip planning tools with real-time transportation information for non-drive-alone modes helps these modes compete with the convenience and flexibility of solo driving. Because there are many choices of modes other than driving alone, and these choices are "competing" with driving alone in terms of time, ease, and legibility, making information easy to access is key to increasing their uptake. This amounts to conducting TDM at a "micro" level–providing information to users about their choices in a given moment and at a given location, including tradeoffs in terms of time, cost, sustainability, etc. It is worthwhile to promote apps to raise awareness and use of non-drive-alone modes.

Some currently available tools include real-time information trip planning apps such as ; Bing Maps, Google Maps, Citymapper, Transit, ActionFigure Screen, and Puget Sound Trip Planner; apps for shared transportation such as carsharing (GIG, Zipcar), apps that allow you to compare parking prices and locations such as Parking Apps, voluntary tracking apps for benefit of community/ employer (such as Strava), and, apps for e-hail, on-demand for-hire ride services/taxis.

3-4 Ridesharing and Ridematch Promotion (All audiences)

Encourage the use of carpooling and vanpooling modes by educating audiences about their benefits and how to set up carpools/ vanpools through the state's RideshareOnline tool. This tool makes it easy to find ridematches by pooling information from users into a geographic system, allowing users to search for similar origins and destinations. This strategy also includes working with property managers and employers to encourage subsidies for ridesharing costs; promote provision of discounted and/or preferential parking for carpools/vanpools; and assisting with setting up networks in the RideshareOnline tool for ridematching within their company or building.

Educate stakeholders about and build support for on-demand micro-transit ridesharing (with traditional or e-hailing options), an extension of traditional carpooling or vanpooling that is more flexible and can be arranged on short notice, as it becomes a new, consistent and sustainable transportation option in Bellevue.

Background/Justification: Vanpooling/carpooling is a flexible option that can work for people traveling relatively long distances for their commutes and both vanpooling/carpooling and on-demand micro-transit are good options when transit is not available or takes longer/is less convenient, or to help the rider connect with a fixed route service that is not accessible otherwise. Continuing to facilitate the use of ridesharing helps provide additional mode options that work well for those for whom other non-drive-alone modes are not convenient or feasible.

3-5 School Pool (K-12 students and parents)

Operate a program to encourage and incentivize the use of non-chauffeur modes to schools in Bellevue, as a continuation of the existing program that began in 2016. For two key one-week campaigns per school year, incentivize schools to put forth messages to students and families encouraging students to walk, bike, take the bus or carpool to alleviate strain at drop-off and pickup zones. Provide fun encouragement and safety items to students such as lights, reflectors, pens/pencils, rulers, etc., as well as use of costumes for the city's pedestrian safety mascot "Pedbee." For certain campaigns, add an additional layer of student engagement such as student art projects.

If feasible, expand the program with elements such as ridematching; enhanced outreach to school representatives to increase the number of participating schools; and expanding promotion of non-chauffeur mode use to all Bellevue students and families, not just those at participating schools.

3-6 Bellevue 2030 District (Audience: Employers, property managers, employees, and residents).

Coordinate with the Bellevue 2030 District, a membership organization of real estate owners, architects, engineers, contractors, and community partners that bridges the gap between the private and public sector to reduce the environmental impacts of buildings in Bellevue, to share with each other's respective audiences, sustainable transportation-related promotion education. Create and administer joint encouragement events together. An example of a joint event could be a webinar intended for Bellevue employers and property managers where Bellevue TDM and the Bellevue 2030 District share information about complementary sustainable travel and commute programs and encourage the employers and property managers to utilize these programs to incentivize their employees and tenants to travel and commute sustainably.

3-7 Shared Micromobility (All audiences)

When and if shared micro-mobility (i.e., bikeshare and scooter share) returns to Bellevue and city code allows for scooter use in all corridors, promote it to individuals, businesses (for their employees), and property managers (for their tenants). Where possible, advocate for the re-introduction of shared micromobility in Bellevue.

3-8 Tourist Engagement (Audience: Tourists)

Partner with Visit Bellevue to promote sustainable travel to tourists. Create and provide Visit Bellevue with user-friendly CYWB transportation guides for tourists/visitors. Assist Visit Bellevue with obtaining no cost short-term loaded ORCA cards for conference attendees and hotel visitors. Provide Visit Bellevue, conference organizers, and hotels with CYWB guides/app instructions, bike maps and information on where to rent bikes, transit passes, and more. Include CYWB link on Visit Bellevue website and work with them to make transportation information easier to find for the user.

3-8 Multi-Family Residential Engagement (Audience: Multi-family residential tenants)

Enhance efforts to reach Bellevue residents, particularly in multi-family buildings by engaging in activities including but not limited to:

- Providing CYWB brochures to and hosting transportation fairs at multifamily buildings.
- Working with property managers to provide TDM welcome kits to new residents include ORCA starter cards, bike and transit maps, CYWB info and brochures that would include among other information, a price comparison between owning a car vs. transit, walking, biking, etc., along with no-cost shwag.
- Presenting at already occurring resident events.
- Providing property managers with presentation decks/talking points, email templates, and hard copy and digital materials to present and email to residents on an ongoing basis.
- Targeting community events that are near multi-family buildings.

3-9 Equity-focused Outreach (Audiences: historically marginalized groups)

Strive towards ensuring that marketing, outreach, and education efforts reach marginalized populations; and continue to promote CYWB programs and local mobility services that provide options for low-income and other historically marginalized residents. Administer outreach campaigns including but not limited to:

- Conducting well-informed, targeted and culturally sensitive education and encouragement efforts to reach historically marginalized populations.
- Increasing outreach to workers in such fields as health care, hospitality and retail that, by their nature include a greater prevalence of shift work and therefore may not be suited to transit and might be better suited to vanpool/carpool.
- Increasing the application of TDM strategies to workers in lower-paying industries that may be less likely to be receiving non-drive-alone mode subsidies from their employers.
- Administering an outreach campaign to encourage people who are not part of the typical biking demographic to learn how to ride and maintain their bikes. Include this as part of Bike Everywhere Month and Bike Everywhere Day activities and at general community outreach events. Create consistent newsletter/blog/video tutorial communications directed towards these communities. Partner with CBOs to reach these marginalized groups to hold bike focused discussions and offer bike maintenance classes/ resources. Promote CYWB bike trip logging for rewards to these communities.
- · Partnering with the city on its annual Cultural Conversations event where Bellevue community members from different countries and backgrounds come together to meet and learn from each other, in order to understand their perspectives and needs and promote sustainable transportation options.
- Enhancing efforts to reach and address the unique needs and challenges of smaller employers through Transportation Management Program (TMP) and CYWB business outreach programs as well as through outreach in support of the CTR Tax Credit Program.
- Increasing translation/transliteration services for program materials to better reach those with limited English proficiency.
- Increasing outreach efforts to the those in the elder and disability communities to understand the unique needs and challenges they face and develop solutions to help them get around using non-drive-alone modes.

CATEGORY 4: Incentives and Rewardss

thinking a new mode is too difficult or costly.

Category 4 strategies may include, but are not necessarily limited to:

4-1 Trip Logging and Rewards Program (Audience: workers, residents, students)

The city launched a trip logging and rewards program in 2011 (currently branded as Choose Your Way Bellevue Rewards). Whereas the Choose Your Way Bellevue website and mobile app serve as information resources, the trip logging/rewards component serves as an "active" branch of the TDM program that encourages people to get assistance, try a new mode, log those trips, earn rewards, and be part of a larger community of others doing the same thing. The program currently includes an overview web page maintained by the city (a sub-page of ChooseYourWayBellevue.org); a link to the online trip logging and ridematching tool, RideshareOnline; links to resources for trip planning assistance; and opportunities to receive rewards and incentives (typically transportation-related gift cards).

Background/Justification: Like many other jurisdictions and TDM agencies, the city provides an online trip *logging/incentive program.* Such programs engage audiences, build an ongoing constituency, and encourage non-drive-alone travel. Since its start in 2011, the trip logging/incentive program (previously named On the Move Bellevue) has had good participation and results. In 2014, 3,354 people participated in trip logging; 1,329 users made a pledge to reduce trips; and 638,759 trips were logged for 8,099,208 miles. 236,023 gallons of gas were saved, and 4,479,897 pounds of carbon dioxide were avoided (as compared to if these trips were taken by drive-alone mode). Prior analysis (2012-2013) showed that those staying in the program for a year reduced *their drive-alone trips by 4%.*

4-2 Commute Challenge (Audience: workers, residents, students)

Seek volunteers currently driving alone to work and willing to try a new commute mode for a period of time. Ask them to tell their stories and/or produce photos or videos of how the new mode worked for them via the Choose Your Way Bellevue blog and social media sites. Subsidize the trial period, as well as a prize drawing, for participants who fulfill their storytelling tasks. The program, which began in 2013, is defunct as of the writing of this plan. The city anticipates continuing some type of Commute Challenge activity in the future, along with other social media contests, invitations for submittal of photos and stories, incentivized games, online recognition "badging," and other such activities related to participants choosing non-drive alone commutes.

Background/Justification: The Commute Challenge not only encouraged people to try a sustainable alternative mode to driving alone, but also got stories of people doing so out into the public realm, helping other Bellevue residents and workers identify personally with the concept of changing their mode in ways their peers have done.

 Incentives and rewards can encourage people to try a new mode when they otherwise would not. In addition, they can help overcome a real or perceived cost barrier of trying a new mode. Incentives and rewards can help offset the trial period and facilitate getting "over the hump" of

4-3 Parking Management (Audience: Employers/Property Managers)

Pursue parking management in the following ways:

- Pursue a parking cash-out program offered to individuals, where employers enroll in order for their employees to be eligible. The program would subsidize a three-month trial period during which an individual would give up his/her space in return for a non-drive-alone mode subsidy (and/or additional cash or gift card incentive). Following the three-month trial period, the employee could choose to permanently give up his/her parking space in return for a transit pass provided by the employer.
- Encourage employers not to subsidize parking or if they are going to do so, to also subsidize sustainable commute modes.
- Encourage employers and property managers to provide preferential carpool and vanpool parking.
- Based on a city staff analysis of employers' pain points, more aggressively recruit those employers with parking costs-related pain to encourage them to pursue these alternatives.
- Encourage and incentivize employers and property managers to encourage employees/tenants to opt for a flexible daily parking pass as opposed to a monthly parking pass. (for commuters who have remotehybrid work schedules). Strategize how to get developers/property managers/employers to promote daily parking options and to subsidize sustainable mode commuting instead of or in addition to parking given that they pay for the parking infrastructure, its management, and its maintenance, and would be invested in the parking lot being used.

CATEGORY 5: Marketing and Promotions

• A key element of TDM is marketing and promotion of non-drive-alone modes. Choices abound in Bellevue for getting from point A to point B, including driving, taking the bus, walking, bicycling, carpooling, vanpooling, taking a taxi or ride-hailing. Some trips can be avoided altogether via teleworking and peak time trips can be avoided by alternative work schedules. Marketing efforts can increase uptake of these modes. This strategy incorporates marketing activities that promote Bellevue TDM's programs, in order to reduce drive-alone trips in the community..

Category 5 strategies may include, but are not necessarily limited to:

5-1 TDM Strategy Marketing and Promotion (All audiences)

Incorporate marketing and promotion into all plan strategies in order to raise awareness and encourage uptake of the encouraged activity or transportation mode. Marketing tactics will vary according to the situation and may include direct mail, web, email newsletter, commuter testimonial videos, targeted social media (including challenges and contests as described in Category 4 above), graphic heavy advertising, and public relations outreach such as news releases. Marketing and promotions will include but not be limited to a call to action that:

• Conveys the negative environmental impact of a car-centric transportation system and encourages drivers to lessen their impact and in doing so empower themselves to be agents of change. Provides information about and encourages usage of transportation alternatives, like transit, biking and walking to help the city achieve the vehicle-related emission and vehicle miles traveled reduction goals of the Environmental Stewardship Plan.

- Emphasizes positive aspects of taking action; and stresses that even under our current dire circumstances, that even small, consistent changes are an important start and make a difference (and a new mode can be "tested" prior to making a permanent change) and;
- Makes it clear that others (particularly people in their community or trusted/respected figures) are choosing non-drive-alone modes, so if they try one as well, they will not be alone and will be aligned with people that matter to them.

messaging and more. Potential marketing tools and approaches include the following:

- Market-based development of brands, logos, taglines, and slogans;
- Advertising/outreach outlets such as radio, bus advertising, and print advertising;
- City channels such as the city phone number "Hold" music, city neighborhood outreach and social media forums such as the "Nextdoor" web community;
- Coordination with existing business, networking and neighborhood groups (e.g. Downtown Bellevue Residents association, trade groups, etc.); and
- graphic design/illustration services.

Background/Justification: The more that travelers are made aware from a trusted government source of the various options available, benefits they can attain from them, and ways in which the city can help make taking advantage of those options easy and affordable, the more likely they are to try them.

5-2 Maintenance and Promotion of www.ChooseYourWayBellevue.org Brand and Website (All audiences)

Increase awareness and name recognition of the city's TDM brand, currently CYWB, positioning it as a one-stop transportation resource for information on all non-drive-alone transportation choices in Bellevue. Consider utilizing other "sub-brands" to the extent that they provide value (i.e., the Return to Travel campaign described in category 4 within this chapter or any updated variation of that campaign developed in the future). Seek constantly to maintain freshness and simplicity in TDM branding and messaging and make adjustments as needed to resonate with the city's evolving TDM audiences and the TDM landscape. This strategy includes content maintenance and design aspects of the city's TDM website, www.ChooseYourWayBellevue.org.

Where possible and appropriate seek to enhance the CYWB app beyond its current function (the website reproduced in app form) with the addition of Bellevue-specific features and support modules to improve user interface and create additional functionality for the purpose of increasing downloads and engagement. Consider other app enhancement efforts including but not limited to a decision tree tool that through an interactive exchange with the user calculates the best, personalized travel plan for them including identifying localized amenities (i.e., bike parking) and first mile/last mile consideration; partnering with the long-range planning department at the City, to create a new online tool for the CYWB app that allows users to see where bike parking exists across the city. The app can also serve as a platform to make a request for bike parking at a particular location. In the future, it could include public e-bike charging.

Bellevue TDM can serve as a good conduit for transportation choice messaging regardless of which city department or external agency is providing the service. Therefore, this strategy may include transit agency route promotions, bicycle and pedestrian infrastructure projects, park & ride lot available capacity

• Supporting activities such as photo shoots, expert marketing consultant assistance, videography, and

Background/Justification: This strategy continues longstanding city efforts toward building trust in and recognition over time of the CYWB brand and website as a useful source of information and support for using modes other than driving alone.

5-3 Recognition (Audience: Employers/Property Managers)

Conduct activities to recognize employers/property managers doing the right things to facilitate and/ or encourage non-drive-alone travel to and from their workplaces or buildings. Such recognition may include but is not limited to:

- Assistance with applying to existing nationwide, statewide, regional and local recognition programs for those businesses and non-business developments that encourage sustainable commuting by their employees and tenants;
- Providing informal but meaningful recognition, based on objective criteria, at employer/property manager events such as Employee Transportation Coordinator networking meetings;
- Designation of employer/property manager with positive terms such as "Champions", "Leaders" or similar terms using objective criteria;
- Enhanced publicizing of recognition that employers/property managers have received through the above means, on the Choose Your Way Bellevue website, through TDM program social media/blog postings, and news releases; and
- Writing case studies "telling the story" of good work done by employers/property managers as well as employees/tenants in a more in-depth manner for posting on the Choose Your Way Bellevue website or other outlets.
- Coordination with the city's Commute Trip Reduction (CTR) program and Transportation Management Program (TMP) in administering recognition events for high-performing Employee Transportation Coordinators (ETCs) from CTR and TMP companies and providing recipients with means of displaying their status symbol.

5-4 Email Newsletters (All audiences)

Create and distribute branded email newsletters with information about the latest transportation promotions, campaigns, and incentives; tips for using the transportation system; timely construction information, transportation planning input opportunities; workshops and classes; etc.

Background/Justification: The city has been distributing newsletters for the Choose Your Way Bellevue program in electronic form for several years. The audience list has grown to several thousand individuals, and there is a very low 'bounce rate," indicating that most people are amenable to receiving the newsletters. The email format is an efficient and effective means for distributing helpful information.

5-5 Intra-City Outreach and Marketing Coordination (All audiences):

Maintain communication and collaboration with other city departments to ensure that every opportunity to share TDM messaging across the multitude of city department communication channels and to share other department's sustainable transportation related infrastructure project and programming messaging is taken advantage of on an ongoing basis.

5-6 2 Line Light Rail Extension Promotion (Audience: workers, residents, students)

Administer ongoing awareness and rider incentive campaigns related to the 2024-2025 launching and postlaunch ongoing operation of the 2 Line Light Rail Extension project from Seattle's International District to Judkins Park, across I-90 to Mercer Island and South Bellevue, and through downtown Bellevue and the Bel-Red area to Redmond Technology Station and to Downtown Redmond. This infrastructure project is of significant importance for advancing non-drive-alone commuting and travel, and as such, Bellevue TDM will dedicate significant staff time and city resources to promotion and incentivization of this exciting sustainable transportation option.

► CATEGORY 6: Research, Planning and Coordination

transportation environment and demographic conditions. Research activities conducted biking and walking.

Category 6 strategies may include, but are not necessarily limited to:

6-1 Research (All audiences)

Conduct research activities to better understand the Bellevue market for TDM, explore TDM Program design best practices, and/or analyze data to make best use of funding and be most effective in reducing drive-alone rate. Conduct research to develop an outreach approach that is tailored to the intended audience and mode(s) to be promoted. Examples of types of research that may be undertaken include market analysis, focus groups, demographic/socioeconomic analysis, and branding/communications research. It may be appropriate to explore societal trends related to transportation, such as whether more people are using multiple modes within a single trip, and the implications of such trends for TDM success. This strategy may include engagement of expert consultants in the TDM field to review the city's TDM program and make recommendations.

Background/Justification: TDM staff acknowledges that this plan is not intended to comprise a full body of research and analysis sufficient to determine all strategies moving forward. Instead, the plan recognizes the need to incrementally plan and do research during the implementation of the plan in order to determine the next activities and strategies that will have the best chance of success as the plan moves forward.

6-2 Enhanced Facilities/Amenities Coordination (All audiences)

Consider exploration of concepts and coordination with other city of Bellevue efforts to enhance nondrive-alone mode facilities and amenities, particularly at key geographic locations for non-drive-alone travel, such as transit centers or transfer points. Work toward enhancing these locations with information resources and amenities for utilizing alternative modes, including enhancements such as exceptional

• Generally, this plan contains strategies that have been developed at a planning level, that is, within a framework of broad analysis. The design of specific strategies should include a finer grain of research where useful and feasible, in order to tailor activities to the relevant alongside implementation help to ensure resources are used effectively to provide the most benefit. Furthermore, TDM staff can add value by participating in or coordinating with city activities and initiatives that provide infrastructure for non-drive-alone modes, such as transit, real-time information, transit, bike parking, bike sharing, carsharing, drop-off/pickup spots, enhanced wayfinding, and even centers for telework or coworking. This activity also may include planning and coordination to facilitate the addition of secure bicycle parking and/or other transportation amenities at the Bellevue Transit Center. Other locations may be explored if feasible and warranted.

Background/Justification: Geographic focal points for multiple mode services and information have been described in the TDM industry as "mobility hubs". These hubs provide space efficiency and synergy between various modes to make it easier to transfer from one mode to another; and the sheer existence of physical multimodal amenities serves as "advertisement" for the availability of non-drive-alone modes. The Bellevue Transit Center already serves as a hub for transit and potentially has space for other mode resources and information. Other commercial activity centers in Bellevue could be considered as well, where land use allows and transit demand warrants.

6-3 Internal and External Coordination (All audiences)

Coordination and collaboration with other city staff, transit agencies, the Washington State Department of Transportation (WSDOT), and other agencies will be needed for upcoming projects such as the Sound Transit Stride Bus Rapid Transit (BRT) and high-occupancy and express toll lanes on I-405; the Eastrail Multiuse Corridor and the launch of 2 Line light rail service in 2024 and 2025. Work can include coordination on education and incentivization planning and implementation. This strategy could potentially include advocating for the provision of transit service and/or bicycle and pedestrian infrastructure and for other non-drive-alone modes where the TDM function has particular insight or ability that makes this role beneficial. These activities could benefit from TDM program messaging about the benefits of using non-drive-alone modes.

Continue to work with the Environmental Stewardship Initiative (ESI), the city's sustainability program, and external groups such as Bellevue 2030 District (see description above) that are setting transportation emission reduction targets, measuring emission reductions, educating property owners, developers and building managers on how to achieve the targets, and advocating for policies that advance members' emission reduction efforts.

Background/Justification: Much of the work supporting the implementation of this plan is conducted by city work groups outside of the TDM function, or by agencies separate from the city. This strategy acknowledges that much TDM work is accomplished in partnership with others, and it lays out Bellevue TDM's strong role in keeping track of and coordinating efforts led by internal and external groups.

Implementation Framework

To implement and administer the plan, Bellevue TDM works in coordination with stakeholders such as transit agencies, business associations, consultants, and other city departments and staff. Most notably, the city has a longstanding collaborative relationship with King County Metro, Sound Transit, and TransManage, the transportation service of the Bellevue Downtown Association (BDA). For nearly two decades, the city has contracted out trip reduction services and website maintenance work with TransManage in the role of contractor through a competitive process. This work has included outreach and assistance to individual travelers as well as businesses and maintaining the Choose Your Way Bellevue brand and travel options information website/app, a one-stop shop for sustainable travel and commuting information and assistance.

The city, transit agencies, and TransManage come together as the Bellevue TDM Collaboration to exchange ideas, share knowledge, formulate solutions, implement TDM Plan strategies and implement Bellevue TDM. The city relies on the guidance and expertise offered by the TDM Collaboration to help the city achieve its TDM goals and targets.

As the city's trip reduction services consultant, TransManage works with property managers, employers, employees, and residents using its relationship to the BDA to enhance its ability to implement TDM in the business community. King County Metro, the largest transit agency in the Puget Sound and a thought leader in the region on TDM, brings a wealth of knowledge due to its history of working with jurisdictions to further the use of nondrive-alone modes. Metro works to develop markets for transit, ridesharing, and other non-drive-alone modes. In addition, Metro has typically passed through federal Congestion Mitigation and Air Quality (CMAQ) grant funding to jurisdictions in the county, working in partnership to implement TDM programs. Sound Transit builds and operates regional transit service throughout the urban areas of Pierce, King and Snohomish Counties, and brings a valuable perspective to the Collaboration as an agency that connects the region with high-capacity transit.

As the lead agency in the Collaboration, the city:

- Provides the policy framework for Bellevue TDM efforts.
- Periodically evaluates progress toward mode share targets for citywide residents and workers, and downtown workers.

- Maintains the Choose Your Way Bellevue brand and travel options information website/app in support of messaging about available programs and incentives.
- Implements its Commute Trip Reduction program and monitors the development and ongoing compliance of TMP-conditioned buildings.
- Coordinates TDM work with other related city planning and implementation activities, including the Mobility Implementation Plan, the Transit Master Plan, Pedestrian and Bicycle Plan, and other transportation plans.

While filling the role of the city's trip reduction services consultant, TransManage:

- Develops and implements trip reduction programs
- Administers building transportation management programs (TMPs) under contract with certain building managers
- Serves as liaison to the private sector

As members of the Collaboration, the transit agencies:

- Share updates and information on current and upcoming projects, programs, initiatives and service changes that could potentially impact and/or benefit Bellevue TDM activities.
- Provide technical expertise to the partners on how to reduce trips and increase the market share for non-drive-alone trips
- Provide expertise on developing the rideshare market and assisting partner implementation and promotion of the calendaring/incentive/rewards program.

Funding Plan

As of this writing, certain funding sources are known and anticipated for the 2024-2033 TDM Plan. On an annual basis, the city typically receives over \$350,000 from federal and state grants to conduct TDM activities and its SchoolPool program. Historically, the city received \$205,000 each biennium for its CTR program and was recently awarded more than double that amount for the current biennium as a result of the state legislature passing the funding package known as "Move Ahead Washington." This measure aims to "preserve our transportation infrastructure; reduce carbon emissions; expand safe, accessible, affordable options to get around; and address the harm caused by past transportation policies."41

The city anticipates continuing to seek state and federal grants in the coming years of the 2024-2033 TDM Plan to advance plan strategies.

Commute Trip Reduction Grant Funding: During the last round of state grant funding, the Move Ahead Washington funding package provided \$478,200 for Bellevue CTR program activities to be administered between July 1, 2023, and June 30, 2025. These funds go toward the city implementing its required Commute Trip Reduction program, which is focused on larger employers, generally those with 100 or more full-time employees. The most recent 2015-2019 update to the CTR plan was adopted in September 2015 and has been extended by the state to 2025.

Federal Congestion Mitigation & Air Quality

(CMAQ) grant funding (as mentioned above) has typically been acquired by King County and passed through to several cities in King County, including Bellevue, to fund TDM activities. For the latest grant period of January 1, 2023 – December 31, 2024, the city received \$500,000 with a local match requirement of \$217,000.

State Regional Mobility grant funding has recently been awarded to the City of Bellevue based on a competitive process for two biennia, from mid-2021 through mid-2025. The first biennium's amount was \$350,000, and the current biennium's amount is \$250,000, with a local match requirement of \$88,544. The funding supports general TDM activities.

Local TDM funding is provided through the city's operating budget. In past years the annual local TDM budget (aside from permanent staff) has totaled up to \$100,000. Local funds are typically used for city functions such as supporting the city-owned travel options brand and website, Choose Your Way Bellevue; funding the monitoring of the city's building Transportation Management Program to ensure that property managers are adhering to their requirements; intern support; and ongoing basic functioning of the program.

Beyond the funding sources stated here, other specific funding resources are unknown as of this writing. However, the city has historically had grant funding available to pursue a robust TDM program, and there is the prospect that this will continue into the future, allowing the city to meet long-term goals and targets for TDM.

APPENDICES

⁴¹ Move Ahead Washington. (2022). Retrieved 17 February 2024, from https://housedemocrats.wa.gov/blog/2022/02/08/move-ahead-washington/

APPENDIX I : Literature Review

Introduction

This literature review is an update from the review that informed the 2015-2023 TDM Plan with the intent to inform the 2024-2033 TDM Plan on new TDM ideas and strategies. To that end, most cited works in this review have been written since 2015 to a) provide a modernized perspective and b) avoid significant overlap with the original work. The purpose of this review is to understand the framework in which we live and operate to better inform Bellevue TDM program strategies and planning.

TDM Overview & Best Practices

The purpose of this section is to provide a highlevel overview of the current best practices in TDM planning. The concept of TDM originates from the 1970s as a desire to provide alternatives to single occupancy commuting in response to the 1973 oil crisis but today is recognized more broadly as "the desire to optimize transportation system performance for commute and non-commute trips and for recurring as well as non-recurring events."42 Reducing car usage has a litany of positive impacts⁴³ but with an increasing global and local focus on climate change, it is even more pressing – in order to reach the U.S. carbon reduction target, the country will need to stay within a "travel budget" of maximum vehicle miles travelled (VMT), regardless of electric vehicle adoption.44

The New Transportation Demand Management: An Implementation Guide for City Officials provides the following building blocks of TDM that aim to change either individual or collective behavior⁴⁵:

1. Pricing Measures

- a. Parking charges as optional amenity
- b. Parking Cash-outs
- *c. Congestion pricing*
- d. Discounts for high-occupancy or low-emission vehicles
- 3. Physical Measures
 - d. Constrained Parking Supply
- e. Bike parking and amenities
- f. Showers and changing facilities for active-mode use
- g. Shared-vehicle stations or parking
- h. Transit stops or amenity improvements
- *i.* Active-mode network improvements
- *j. Telework spaces and amenities*
- 3. Programs and Policies
 - *a. Transit cost subsidies*
 - *b. Vanpool provisions or cost subsidies*
 - *c. Carpool/vanpool matching*
 - *d. Free shuttle services*
 - e. Remote and flexible work policies
- 4. Promotional and Marketing Measures
 - a. Engaging Transportation Management *Associations or similar services*
 - *b. Providing* TDM *coordinator positions for employees, tenants, or residents*
 - *c. Web and mobile based information resources*
 - d. Events, activities, and challenges

A similar effort from the University of Wisconsin-Madison collected TDM efforts from around the country and identified the following measures local government may use to reduce driving alone: affordable housing, bikeshare programs, carshare programs,

connectivity and walkability, guaranteed ride home programs, multimodal wayfinding, neighborhood supportive services, parking management, preferential rideshare parking, residential area parking permits, real-time trip data, and unbundling parking costs from property costs.⁴⁶ Closer to home, a review of Seattle's TDM efforts with developers from 1988-2015 found that incorporating TDM into permit review for new construction lasted the lifetime of the building. By using its regulatory authority, the city was able to incorporate physical TDM elements which had a positive impact on mode-shift.47

By understanding and employing these strategies, TDM managers and practitioners can work to decrease driving alone in Bellevue and throughout the country. The Bellevue TDM program currently utilizes most of

Ranking urban transport modes

Average carbon emissions by transport type (in gram per pkm)



b Analysis, TNMT.com, press and various research studies - see extra Airtabl

Figure 1: Relative carbon emissions by urban transportation mode. Non-drive alone modes generate much fewer emissions than cars, highlighting the importance of TDM's role in emissions reduction.⁴⁸

these recommendations in some capacity; however, it is vitally important that the program studies and listens to best practice recommendations from other TDM efforts around the country and world.

► COVID

Key Takeaways:

- Driving dropped dramatically in 2020 but has been rebounding back to pre-pandemic levels.
- Transit usage nationwide is nearly back to prepandemic levels but is lagging in Bellevue.
- The large increase in teleworking due to the pandemic does not decrease transportation emissions.



Figure 2: Vehicle Miles Travelled (VMT) dropped dramatically following COVID but quickly returned to pre-pandemic levels. Source: US. **Office of Energy Efficiency & Renewable Energy**

The Impacts of COVID on Transportation Trends

There are two main COVID-created trends: the precipitous drop in travel in the first months of the pandemic and the subsequent dramatic rise back to pre-pandemic levels.

⁴⁶ Modernizing Mitigation (2022). Retrieved 30 November 2022, from https://smartgrowthamerica.org/wp-content/uploads/2018/10/Modern-Mitigation-A-demand-

47 McKnight-Slottee, M., Bae, C.-H. C., & McCormack, E. (2022). Site-Specific Transportation Demand Management: Case of Seattle's Transportation Management

⁴²Travel Demand Management. (2022). Retrieved 30 November 2022, from https://ops.fhwa.dot.gov/aboutus/one_pagers/demand_mgmt.htm

⁴³ Handy, S. (2020). Reducing Car Dependence Has Economic, Environmental, and Social Benefits. UC Davis: National Center for Sustainable Transportation. http://dx.doi. org/10.7922/G2J101FV Retrieved from https://escholarship.org/uc/item/7js9s5jk

⁴⁴ Alarfaj, A.F. (2022). Decarbonizing US passenger vehicle transport under electrification and automation uncertainty has a travel budget. Retrieved 1 December 2022, from https://iopscience.iop.org/article/10.1088/1748-9326/ab7c89

⁴⁵ Nelson Nygaard - The New Transportation Demand Management: An Implementation Guide for City Officials (2022). Retrieved 30 November 2022, from The New Transportation Demand Management (nelsonnygaard.com)

centered-approach-compressed.pdf. The findings of each measure mitigating VMT varied in magnitude and measurement across jurisdictions with different implementations

Program, 1988-2015. Transportation Research Record, 2676(1), 573-583. https://doi.org/10.1177/03611981211035765 ⁴⁸The environmental impact of today's transport types. (2023). Retrieved 10 January 2023, from http://tnmt.com/infographics/carbon-emissions-by-transport-type/

Nationwide, it's not just that driving has returned to prepandemic levels, but gas consumption in the 2022 fiscal year was higher than ever – 6.8 billion gallons, more than the previous high in 2018.49 The transportation analytics company INRIX's 2022 Global Traffic Scorecard estimated that 39% of urban areas in the U.S. had more congestion in 2022 than pre-pandemic.⁵⁰ This illustrates the unique challenge for TDM efforts at present: averting the post-pandemic spike in driving alone. Amplified by health and social distancing concerns, public transit usage also dropped nationwide;

surveys have found that 50-75% of respondents reported using transit less since the pandemic.^{51,52} These trends held true in Bellevue: the average number of daily "on and offs" on busses in Bellevue dropped from 51,100 in Spring 2019 to 9,800 in Spring 2020 and has since recovered to 30,100 in Fall 2022 - still 41% below pre-pandemic levels⁵³.

By 2022, Bellevue's drive-alone rate was declining faster than the national average, the challenge for TDM moving forward, as it has always been, will be to encourage the use of other modes.



Data Sources: American Community Survey 2020 5-Year Data

Figure 3: Bellevue's and King County's drive alone mode shares are decreasing faster than the national and state averages from 1990-2020.

Telework

The other massive shift in travel due to COVID was the large increase in teleworkers. Nationally, it has been estimated that between April 2020 and December 2020, telework accounted for more than 50% of paid working hours.⁵⁴ Looking forward, the National Bureau of Economic Research estimates that 20% of full workdays will be done at home, compared to 5% before COVID.⁵⁵ Data from the Washington State Commute Trip Reduction Survey, indicates that teleworking at Bellevue CTR-affected companies is still going strong after the pandemic. Ten years ago, during the 2011-2012 CTR survey cycle, the total citywide CTR telecommuting rate was only 6% compared to 12% in the 2019-2020 survey cycle and 46% for the 2021/2023 survey cycle. Since 2012, Bellevue citywide CTR telecommuting rate has increased by 34 percentage points.⁵⁶

Counterintuitively, the rise in teleworking does not mean a decrease in VMT or vehicle emissions. National literature indicates those who telework take more trips per day and travel longer distances than nonteleworkers.⁵⁷ Teleworkers tend to have more complex schedules, visiting more locations and thus increasing actual travel, even if commute travel is decreased.58 A review of 39 papers on the climate impacts of teleworking corroborates this - the increases in nonwork travel and home energy usage suggest economywide energy savings are modest at best but are likely to be negligible or even negative.⁵⁹ Two forces behind this increase in travel for teleworkers may be that teleworkers do not "trip-chain" by consolidating nonwork trips into their commute and that the option to work remotely allows teleworkers to live farther from

their workplace, lengthening their commute trips.⁶⁰

Addressing this challenge will be vitally important for Bellevue TDM moving forward. Currently, Bellevue TDM does not count teleworking "trips" towards its commute rewards program. The prevalence of teleworking may slowly decrease post-pandemic, but it is unlikely, due to popularity of teleworking. In Bellevue, as of 2022, over 25% of Bellevue workers telecommute, compared to just 5% in 2019.61

Equitv

Key Takeaways:

- "Equity" is a broad umbrella term referring to how benefits and costs of public (or private) actions affect marginalized groups (viewed in terms of income, race, gender, age, physical ability, etc.) and equity should be considered in all transportation, TDM Plan and policy decisions.
- Transportation touches and interfaces with many types of equity - this section is a broad overview, but subsequent sections of this review will discuss equity in greater detail.
- Car dependency exacerbates inequities. Bellevue's TDM program should use this as a focal point of the program as providing non-driving alternatives is a method of addressing inequity.

"Equity" is a broad but useful framework for understanding the myriad of tangible effects that transportation can have on people's lives. Generally, equity can be defined as "the distribution of impacts (benefits and costs) and whether that distribution is

⁵⁴ Teleworking and lost work during the pandemic: new evidence from the CPS. (2022). Retrieved 2 December 2022, from https://www.bls.gov/opub/mlr/2021/article/

⁵⁷ Reilly, P.J and Tawfik, A.M. (2022) Do Telecommuters Make Fewer Trips? An Analysis of Telecommuting Travel Behavior in Urban and Rural Communities in the USA | International Conference on Transportation and Development 2022. Retrieved 2 December 2022, from https://ascelibrary.org/doi/10.1061/9780784484340.006 ⁵⁸ Rongxiang Su, et al. Unveiling daily activity pattern differences between telecommuters and commuters using human mobility motifs and sequence analysis. (2022).

USA | International Conference on Transportation and Development 2022. Retrieved 2 December 2022, from https://ascelibrary.org/doi/10.1061/9780784484340.006 61 U.S Census Bureau. (2023). 2022 & 2019: ACS 1-Year Estimates. SEX OF WORKERS BY MEANS OF TRANSPORTATION TO WORK FOR WORKPLACE GEOGRAPHY. Retrieved from https://data.census.gov/all?g=B08406:%20Sex%20of%20Workers%20by%20Means%20of%20Transportation%20to%20Work%20

⁴⁹ U.S. Gasoline Use Hit All-Time High in FY 2022 – The Eno Center for Transportation. (2022). Retrieved 2 December 2022, from https://www.enotrans.org/article/ u-s-gasoline-use-hit-all-time-high-in-fy-2022

⁵⁰ Bellevue was not included individually in the analysis, but Seattle and Tacoma had 52% and 20% increases in congestion from 2021-2022, respectively. INRIX Global Traffic Scorecard. (2023). Retrieved 12 January 2023, from https://inrix.com/scorecard/

⁵¹ Parker, M.E.G et al. Public transit use in the United States in the era of COVID-19: Transit riders' travel behavior in the COVID-19 impact and recovery period. (2022). Retrieved 2 December 2022, from https://www.sciencedirect.com/science/article/pii/S0967070X2100206

⁵²COVID made many of us avoid public transport - what will it take to get us back on the bus? (2022). Retrieved 2 December 2022, from https://www.weforum.org/ agenda/2021/02/public-transport-covid-data/

⁵³ Trends In Transit. (2023). Retrieved 6 February 2024, from <u>https://storymaps.arcgis.com/stories/8d9924bad20c413e996c3c79da57a364</u>

teleworking-and-lost-work-during-the-pandemic-new-evidence-from-the-cps.htm ⁵⁵ Why Working from Home Will Stick. (2022). Retrieved 2 December 2022, from https://www.nber.org/papers/w28731 ⁵⁶ This data is internal to the City of Bellevue.

Retrieved 2 December 2022, from https://www.sciencedirect.com/science/article/abs/pii/S0965856421000574 ⁵⁹ Hook, A et al. (2022). Retrieved 2 December 2022, from https://iopscience.iop.org/article/10.1088/1748-9326/ab8a84/pdf 60 Reilly, P.J and Tawfik, A.M. (2022) Do Telecommuters Make Fewer Trips? An Analysis of Telecommuting Travel Behavior in Urban and Rural Communities in the for%20Workplace%20Geography&d=ACS%205-Year%20Estimates%20Detailed%20Tables

considered fair and appropriate."⁶² The Minnesota Department of Transportation has defined equitable transportation as consisting of three core components:63

- 1. Transportation systems
 - a. Supporting multimodal options that are affordable, reliable, efficient, safe, and easy to use.
- 2. Quality transportation services
 - a. Accessible to all populations for reaching *destinations independently*
- 3. Transportation decision-making processes
 - a. Incorporating inclusive public engagement to reduce socioeconomic disparities experienced by marginalized and underrepresented communities.

Similarly, the U.S. Department of Transportation's Equity Action Plan highlights four equity actions as focal points for the department: wealth creation for disadvantaged small businesses, the power of community through pre-grant civil rights review, interventions via targeted assistance, and expanding access to affordable transportation options.64

Equity interfaces with nearly every aspect of transportation; this section aims to provide a general overview of some of the most prominent ways in which transportation systems either address or perpetuate inequities. In subsequent sections of this review, equity will be brought up where relevant. For example, with respect to COVID, the decreases in public transit ridership were not equally distributed. Areas of the country with higher median household income, higher proportions of college degree holders, and higher employment rates were more likely to have reductions of public transit ridership during COVID.65 Conversely, areas with greater poverty rates and Hispanic populations were more likely to report smaller reductions in transit ridership.66

The most conspicuous way in which transportation equity is present is in car ownership and usage among low-income households. Car ownership and usage is more prevalent among higher income individuals and, therefore, low-income individuals are more reliant upon public transit and other non-driving modes for transportation. According to Pew Research, nationally, Americans who are low-income, Black, Hispanic, or immigrants under 50 are "especially likely" to use public transportation on a regular basis.67



Automobile mode share, annual vehicle travel and peak-period trips tend to increase with income. Lowest income seldom drive during peak periods. This indicates that road user fees and congestion pricing are less regressive than financing roads and parking through general taxes or through building rents.

Figure 4: Low-income households are generally more reliant on non-driving modes of transportation.⁶⁸

In terms of TDM, the lesson is that the promotion and increased accessibility of non-driving modes is a method of decreasing societal inequities. A 2014 study of the varying impact of TDM strategies across groups found that low-income households gain the most when public transit is made more accessible via lower fares and shorter travel times.⁶⁹ Conversely, it has also been found that greater household expenditure on private autos is positively correlated with income concentration in the richest 10% of the population.⁷⁰ "In a multimodal community motorist can still drive...but an automobile-dependent community non-drivers are significantly disadvantaged," indicating that a diverse and multi-faceted transportation system is the most vertically equitable across income, social class, and mobility need and ability.71

This idea is being tested in King County Metro's Free Youth Transit Pass program and other free or reduced fare programs throughout the country. The intent of the King County program is to improve access and provide economic opportunities to young people for whom transit fares can present financial barriers.⁷² A similar pilot program is underway in Boston, spearheaded by Mayor Michelle Wu, who ran on a platform of free public transit in 2021. This program provides fully free bus service along three routes in three of Boston's historically low-income and Black neighborhoods, with the purpose of lessening "riders' financial burden at a time when economic vulnerability is at a historic high."⁷³ In 2019, Kansas City was the first major U.S. city to adopt completely zero-fare transit within city limits but several other cities are undertaking studies to evaluate the efficacy of such policies, so it is plausible

that other large cities will adopt zero-fare transit in the coming years.⁷⁴

These are just a small selection of the intersections between transportation and equitable outcomes. There is a dense literature regarding differing mobility needs, public health outcomes and vehicle emissions,⁷⁵ disparities in pedestrian fatalities,⁷⁶ and seniors' reliance on transit,⁷⁷ to name a few. A more accessible transportation system in Bellevue creates more equitable outcomes and continues to be a goal and guiding principle for TDM moving forward.

Active Transportation

Key Takeaways

- Of the TDM options, walking and biking should be prioritized by Bellevue's TDM program as they generate the fewest carbon emissions and the most public health benefits.
- COVID-19 exacerbated walking and biking patterns along income lines.
- E-Bikes, e-scooters, and micromobility have great potential as TDM offerings as they have been shown to be effective catalysts of mode shift away from driving and have a lower carbon footprint than driving.
- There are many recent success stories of communities and governments increasing biking and e-biking viability. Bellevue TDM should closely monitor these programs and determine what is replicable in Bellevue.

69 Hasninea, S.M and Habib, K.N (2022). Transportation demand management (TDM) and social justice: A case study of differential impacts of TDM strategies

⁷² Free Youth Transit Passes Soon to Be Available Across King County - King County. (2022). Retrieved 7 December 2022, from https://kingcounty.gov/council/

⁷³ FREE ROUTE 23, 28, AND 29 BUS PROGRAM. (2022). Retrieved 7 December 2022, from https://www.boston.gov/departments/transportation/free-route-23-

⁶² Litman, T. (2022) Evaluating Transportation Equity: Guidance For Incorporating Distributional Impacts in Transportation Planning Retrieved 7 December 2022, from https://nacto.org/wp-content/uploads/2015/07/2014_Litman_Evaluating-Transportation-Equity.pdf

⁶³ Minnesota Department of Transportation, (2022). Advancing Transportation Equity. Retrieved 7 December 2022, from https://www.dot.state.mn.us/planning/ program/advancing-transportation-equity/pdf/Advancing Equity ResearchBrief Final.pd

⁶⁴ U.S. Department of Transportation. (2022). Equity Action Plan. Retrieved 7 December 2022, from https://www.transportation.gov/sites/dot.gov/files/2022-04/Equity_ Action Plan.pdf

⁶⁵ Qi, Y., Et al. (2021). Impacts of COVID-19 on public transit ridership. Retrieved 7 December 2022, from https://www.sciencedirect.com/science/article/pii/ S204604302100085X

⁶⁶ Ibid.

⁶⁷ Anderson, Monica. (2022) Who relies on public transit in the U.S. Retrieved 7 December 2022, from https://www.pewresearch.org/fact-tank/2016/04/07/who-relieson-public-transit-in-the-u-s/

⁶⁸ Litman, T. (2022) Evaluating Transportation Equity: Guidance For Incorporating Distributional Impacts in Transportation Planning Retrieved 7 December 2022, from https://nacto.org/wp-content/uploads/2015/07/2014 Litman Evaluating-Transportation-Equity.pdf

on various income groups. Retrieved 7 December 2022, from https://www.sciencedirect.com/science/article/abs/pii/S0967070X1930326 ⁷⁰ Valenzuela-Levi, N, 2018. Why do more unequal countries spend more on private vehicles? Evidence and implications for the future of cities. Retrieved 7 December 2022, from https://www.sciencedirect.com/science/article/abs/pii/S2210670717312581?via%3Dihu ⁷¹Litman, T. (2022) Evaluating Transportation Equity: Guidance For Incorporating Distributional Impacts in Transportation Planning Retrieved 7 December 2022, from https://nacto.org/wp-content/uploads/2015/07/2014_Litman_Evaluating-Transportation-Equity.pdf

mainnews/July/7-26-free-youth-passes.aspx

²⁸⁻and-29-bus-program

⁷⁴ Pyzyk, K. (2022) Kansas City, MO to eliminate transit fares. Retrieved 9 December 2022, from https://www.smartcitiesdive.com/news/kansas-city-mo-toeliminate-transit-fares/568754/

⁷⁵Moura and Reichmuth, (2022) Inequitable Exposure to Air Pollution from Vehicles in the Northeast and Mid-Atlantic. Retrieved 9 December 2022, from https://www.ucsusa.org/resources/inequitable-exposure-air-pollution-vehicles

⁷⁶ Raifman and Choma, (2022) Disparities in Activity and Traffic Fatalities by Race/Ethnicity. Retrieved 9 December 2022, from https://www.ajpmonline.org/ article/S0749-3797(22)00155-6/fulltext

⁷⁷ Tenkanen, H. (2022) Accessibility and Essential Travel: Public Transport Reliance Among Senior Citizens During the COVID-19 Pandemic. Retrieved 9 December 2022, from https://www.frontiersin.org/articles/10.3389/fdata.2022.867085/full?amp;amp

Throughout the U.S., roughly 3% of workers commute by "active transportation," defined as walking or biking. In Washington, the proportion is 4.3%.⁷⁸ These numbers are significant because walking and biking drastically reduce GHG emissions relative to driving and have immense public health benefits: roughly one in four adults report no physical activity outside of their jobs and sedentary lifestyles contribute to the high obesity rate in the U.S.^{79,80} Survey data from 2022 has shown that COVID-19 exacerbated walking and biking frequency in individuals: people who reported walking or biking prior to the pandemic had equal or greater rates during and after COVID.⁸¹ However, these benefits are not equally distributed. The same study found that individuals from underprivileged groups such as low-income, older individuals, less educated, and minorities were less active prior to COVID and were less so during and after the pandemic. These trends that began during COVID were expected to continue into the future because the underlying reasons for the disparity in behavioral patterns was never resolved, specifically personal reasons such as a lack of free time, infrastructure reasons such as a lack of sidewalks, and reasons having to do with safety concerns.82

Pedestrian safety continues to be a serious concern and is increasingly seen as an equity issue. Traffic fatalities hit a 16-year high in 2021, a 10.5% increase over 2020, with pedestrian fatalities increasing by 13% in the same time period.⁸³ These pedestrian fatalities

are stratified across racial lines: Black Americans died at four times the rate of White Americans while biking and double the rate while walking.⁸⁴ Another report found that 30% of pedestrian traffic fatalities occur in the lowest income neighborhoods, despite these areas accounting for only 17% of the population.⁸⁵ These disparities are often attributed to infrastructure design – low-income neighborhoods often lack pedestrian safety infrastructure such as crosswalks and safe sidewalks, and the roads themselves, while having low speed limits, are not designed in a way that mitigates driving speed.⁸⁶ Another study offers a slightly different explanation for why individuals from marginalized groups walk and bike less: the reasons for the trip. Dumbaugh et al. (2022) propose that low-income individuals more often walk or bike out of necessity, due to a lack of car or viable alternatives, whereas higher-income individuals walk and bike more often for recreation, meaning they can avoid dangerous intersections or streets.87

On a positive note, since 2014 there has a been a rise in e-bike usage and bike incentive programs, and in shared micromobility. While the City of Bellevue does not allow e-scooters on public rights of way with speed limits greater than 25 miles per hour, shared micromobility⁸⁸ has proven to be one of the most resilient transportation modes, with trips nearly doubling between 2020 and 2021.^{89,90,91,92} A study from Portland, Oregon found that at a 15% person miles traveled (PMT) mode share of e-bikes, car mode share

could be reduced by 7 percentage points, total daily car PMT could be reduced by 3.4 million miles, and total passenger transportation CO2.93 On an individual level, the same study found an average reduction of 225kg CO2.94 Other examples of recent success stories nationwide include:

- In 2015 Google implemented an e-bike lending program targeting drive-alone commuters. The program provided free e-bikes for 6 months as well as free maintenance and emergency pickups. At the end of 6 months the company incentivized participants to purchase their own bike and continue bike commuting. In total, the program was estimated to have tripled bike commute rates during the program period and, though ridership dipped after the program, bike commuting remained above baseline. The increase in bike commuting was attributed to decreases in drive-alone commuting and it was estimated that the program reduced 400,000 drive-alone commute miles.⁹⁵
- Across California, commuters and children going to school have begun "bikepooling" together to socially incentivize bike riding. In October 2021, the Civic Bicycle Commuting (CiBiC) pilot launched in Los Angeles with the goal of getting previously driving commuters to bike together to work. A CiBiC survey found that 73% of respondents in the pilot's service area drive less than five miles to work – the program is intended to make biking these short trips convenient, fun and safe, even in a city like LA that is often not bike-friendly.⁹⁶ Similarly, the "Bike Bus" has been gaining popularity in San Francisco with nearly 100 school-bound children and chaperones commuting to their school together.⁹⁷ In 1969, 42%

of American children travelled to school by foot or bike; in 2017 that had fallen to 10%.⁹⁸ The Bike Bus idea originated in Barcelona but caught on in San Francisco during COVID, though there are no current metrics regarding trips reduced.

• Some jurisdictions across the country are piloting rebate programs for e-bikes, most notably Denver, Colorado. In 2022 Denver offered \$400 rebates for e-bike purchase and \$500 for e-cargo bikes but had to pause the program until early 2023 after the program redeemed 4,401 vouchers, it's funding maximum.^{99,100} In November 2022, the King County Council passed a budget provision for 2023-2024 requesting the Executive's office assess the feasibility of a similar program, based off the success in Denver.¹⁰¹

Parking

Key Takeaways

- Parking pricing is arguably the most effective tool for TDM planners as parking availability and pricing have a direct and significant impact on driving mode share.
- Free and subsidized parking is extremely costly for cities nationwide and its impact on economic vitality, mode share and sustainable transportation goals must be understood by TDM planners.
- Many cities nationwide are removing parking minimums for some uses and areas, including several locally.

Parking remains one of the most crucial issues in transportation planning, urban planning, and TDM. Much has been written about the many negative

⁹⁴ Michael McQueen, John MacArthur, Christopher Cherry (2020). The E-Bike Potential: Estimating regional e-bike impacts on greenhouse gas emissions, Transportation

- ⁹⁷ With Bike Buses, Kid Cyclists Dominate the Road. (2022). Retrieved 14 December 2022, from https://www.bloomberg.com/news/features/2022-02-10/kids-board-bike-
- 98 Why, and How, Kids Should Walk or Bike to School. (2022). Retrieved 14 December 2022, from https://nextcity.org/urbanist-news/why-and-how-kids-should-walk-or-
- ⁹⁹ Denver e-bike rebate funds exhausted for 2022 | FOX31 Denver. (2022). Retrieved 14 December 2022, from https://kdvr.com/news/local/denver-e-bike-rebate-funds-

100 Electric Bikes (E-Bikes). (2022). Retrieved 14 December 2022, from https://www.denvergov.org/Government/Agencies-Departments-Offices/Agencies-Departments-

¹⁰¹ Ryan Packer. King County Council Pushes for E-Bike Rebate Program. (2022). Retrieved 14 December 2022, from https://www.theurbanist.org/2022/11/18/king-

⁹³ The 12% reduction in CO2emissions is inclusive of electricity generation needed for the bikes and car trips reduced by e-bike usage.

Research Part D: Transport and Environment, https://doi.org/10.1016/j.trd.2020.102482. 95 Fitch, D. Et al. 2022. Examining the Effects of a Bike and E-Bike Lending Program on Commuting Behavior. (2022). Retrieved 14 December 2022, from https:// scholarworks.sjsu.edu/cgi/viewcontent.cgi?article=1387&context=mti_public ⁹⁶ For 2-Wheel Commuters in LA, 'Bikepooling' Brings Safety in Numbers. (2022). Retrieved 14 December 2022, from https://www.bloomberg.com/news/ articles/2022-08-23/can-car-crazy-la-make-room-for-bikepooling?srnd=citylab trains-from-barcelona-to-san-francisco

bike-to-school

exhausted-for-2022/

Offices-Directory/Climate-Action-Sustainability-Resiliency/Sustainable-Transportation/Electric-Bikes-E-Bikes-Rebates#section-1

county-council-pushes-for-e-bike-rebate-program/

externalities created by free and subsidized parking in urban areas but, at its core, subsidized parking runs counter to the goal of TDM by valuing cars over people and issuing money that encourages more driving alone.¹⁰² Nationwide, unpriced off-street parking costs \$127-374 billion in the U.S., the equivalent of a 8-21¢ subsidy per vehicle-mile.¹⁰³ At the center of this issue is that most parking generation has been based off of peak parking demand; prior research has shown that at least half off all parking spaces were vacant for more than 40% of the time a shopping center is open for business.¹⁰⁴ Research from 2022 shows that across North America, for every dollar motorists spend on their vehicles, another dollar is spent on

parking for its use.¹⁰⁵ By these overarching figures alone, it is clear how parking shapes the urban center in which TDM operates – the continued reliance on cars creates an artificially large market for parking which only encourages more car usage. Moreover, it must be understood that "free parking" has costs borne to residents through increased costs elsewhere. "Housing costs are typically 10-20% higher, weekly grocery and restaurant bills cost a few dollars more, and most employees are paid hundreds of dollars less each year to provide "free" parking."106 TDM practitioners and planners must understand this and consider the potential to utilize parking pricing and strategies to reduce car reliance and support non-driving modes.

Parking Type	Bellevue Cost	Bellevue North America Rank
2 Hour Off-Street Parking	\$9.02	24th
Daily Off-Street Parking	\$17.35	29th
Monthly Off-Street Parking	\$183.70	13th

Table 1: Bellevue parking costs and rank among North American cities. Rankings listed high to low, with 1st representing the greatest cost of parking. While Bellevue has high off-street parking costs, the city is not in the top 50 in North American cities for On-Street parking costs. On-Street parking in Bellevue is free.¹⁰⁷

The most pertinent connection between parking and TDM is in how parking accessibility affects mode choice. If the primary goal of TDM is to reduce driving and parking availability and pricing affects the rate of driving in a given area, then it is crucial for TDM managers to understand this relationship. The underpricing of parking increases driving and parking demand leading to increases in parking and congestion – the costs of this underpricing is borne by those who drive less, thereby subsidizing more frequent drivers.¹⁰⁸ As driving tends to increase with income,

the underpricing of parking should be considered a regressive cost on lower-income people.¹⁰⁹ Much has been written on the relationship between parking and driving mode share, below are relevant highlights:

- Models such as cost-recovery pricing or parking cash out have been shown to reduce drive-alone commuting by 10-30%.¹¹⁰
- Research into employer commute benefits has shown that non-driving benefits such as transit passes or bike amenities leads to a decrease in the likelihood of employees driving. Including free

¹⁰⁵ Litman, Todd. (2022). Comprehensive Parking Supply, Cost and Pricing Analysis Retrieved 4 January 2023, from https://www.vtpi.org/pscp.pdf

- car parking in commuter benefit packages with nondriving benefits offsets the mode shift effects of the benefits for non-drivers.¹¹¹
- A 2016 study found that an increase of 0.1 to 0.5 parking spaces per person was associated with a 30 percentage-point increase in driving mode share and moreover, that this linkage is causal. That is, parking provisions cause citywide car usage.¹¹²
- The built environment of an urban area, including parking, influences VMT. Constraining on-site residential parking to less than 1 space per dwelling unit accounts for a 10-23 percentage point decrease in VMT.¹¹³
- Research into tradable parking permit schemes shows that these systems are feasible and efficient. Additionally, an increased focus on environmental benefits improves effectiveness in encouraging mode shift to public transit.¹¹⁴

Finally, it must be noted that some U.S. cities are beginning to abolish the minimum parking requirements that have contributed to the issues described above. In October and November 2022, four cities repealed parking mandates: Lexington, KY, Culver City, CA, Cambridge, MA, and Nashville, TN.¹¹⁵ Locally, Seattle has repealed parking minimum rules downtown and in urban centers, Tacoma has a "reduced parking area" in most of its downtown core area, and Portland has no parking requirements in the central city for any use.¹¹⁶ In 2021, Bellevue City Council adopted Ordinance 6589 to lower minimum residential parking requirements in certain housing developments near frequent transit service.¹¹⁷ A 2020 Washington State Bill (SB 2343) limits minimum residential spaces within a quarter mile of frequent transit stops.¹¹⁸

These changes represent a growing consensus around the undesirable impact that free, subsidized, or mandated parking has on driving rates and housing costs.

Housing

Key Takeaways

- Housing and transportation are inherently linked and represent over 50% of household spending nationwide.
- Housing and transportation costs are inversely correlated – households who spend more on housing to live closer to downtown areas spend less on transportation due to the greater
- availability of non-drive-alone modes in downtown areas such as transit, walking and biking. Importantly, the research suggests that the savings on transportation spending generally offsets greater housing costs.
- Increases in transportation spending nationwide are largely due to spending on personal cars. Increased availability of transit and non-driving modes can economically benefit households, particularly lowincome households.

The most simplistic explanation of the relationship between housing and transportation is that they are inversely correlated: denser housing means shorter trips and vice versa. Increasing housing costs drive employees away from downtown areas or dense employment centers thereby increasing commute distances.¹¹⁹ This is relevant in Bellevue where housing costs are relatively high, and the population density is relatively low when compared to other cities.

¹¹⁹Szambelan, Sarah. (2019). Driving Change: Policies to expand on employer-based Mobility on Demand pilot programs and reduce drive-alone commuting in the Bay

¹⁰² Shoup, Donald. (1997). The High Cost of Free Parking. Journal of Planning Education and Research. 17. 3-20. This section will only touch on some of the impacts of parking. Donald Shoup's book and continued work is seminal to the field and any reader looking to learn more should strongly consider reading Dr. Shoup's work. 103 Ibid.

¹⁰⁴ Ibid.

¹⁰⁶ Litman, Todd. (2022). Comprehensive Parking Supply, Cost and Pricing Analysis Retrieved 4 January 2023, from https://www.vtpi.org/pscp.pdf

¹⁰⁷ Parkopedia 2019 Parking Index North America. Parkopedia. (2019). Retrieved 5 January 2023, from https://cdn2.hubspot.net/hubfs/5540406/Parkopedia_North-America-Parking-Index-2019_Final.pdf

¹⁰⁸ Litman, Todd. (2022). Comprehensive Parking Supply, Cost and Pricing Analysis Retrieved 4 January 2023, from https://www.vtpi.org/pscp.pdf 109 Ibid.

¹¹⁰Shoup, Donald. (2005). Parking Cash Out. Retrieved 5 January 2023, from http://shoup.bol.ucla.edu/Parking%20Cash%20Out%20Report.pdf

¹¹¹Hamre, Andrea & Buehler, Ralph. 2014. Commuter Mode Choice and Free Car Parking, Public Transportation Benefits, Showers/Lockers, and Bike Parking at Work: Evidence from the Washington, DC Region. Journal of Public Transportation, 17 (2): 67-91. https://digitalcommons.usf.edu/jpt/vol17/iss2/4 ¹¹² McCahill, C. T., Garrick, N., Atkinson-Palombo, C., & Polinski, A. (2016). Effects of Parking Provision on Automobile Use in Cities: Inferring Causality. Transportation Research Record, 2543(1), 159–165. https://doi.org/10.3141/2543-19

¹¹³Currans, K.M., Abou-Zeid, G., McCahill, C. et al. (2022). Households with constrained off-street parking drive fewer miles. Transportation. https://doi.org/10.1007/ <u>s11116-022-10306-8</u>

¹¹⁴Bao, Helen X.H and Ng, Joelle. (2022). Tradable parking permits as a transportation demand management strategy: A behavioural investigation. Retrieved 5 January 2023, from https://www.sciencedirect.com/science/artic /pii/S0264275121003620 ¹¹⁵ Tony Jordan. What Comes Next After Abolishing Parking Mandates – Streetsblog USA. (2023). Retrieved 5 January 2023, from https://usa.streetsblog.org/2022/11/28/ what-comes-next-after-abolishing-parking-man

¹¹⁶ Parking Reform Network. (2023). Retrieved 5 January 2023, from <u>https://parkingreform.org/resources/mandates-map/</u> ¹¹⁷ Reduced Minimum Residential Parking Standards. (2023). Retrieved 5 January 2023, from <u>https://bellevuewa.gov/city-government/departments/development/codes-</u> and-guidelines/code-amendments/recent-code-3 ¹¹⁸ Ibid.

Area. Retrieved 5 January 2023, from https://www.jstor.org/stable/resrep26065?seq=10#metadata_info_tab_content

Housing and transportation are often connected by researchers in terms of cost. Housing and transportation comprise the two biggest expenditure categories for U.S. households: as of 2021, housing and transportation together accounted for over 50% of household spending.120



Figure 5: 2021 Consumer Expenditures. Housing and Transportation are the 2 largest categories, together accounting for just over 50% of annual household spending.¹²¹

- Despite housing accounting for a larger portion of household spending, the literature is clear on one key point: households that move further from job centers to save on housing costs spend more on transportation, often enough to offset the savings on housing costs:
- A 2015 study on housing, transportation, and urban sprawl found that each 10% increase in metropolitan compactness (density) was associated with a 1.1% increase in housing costs and 3.5% decrease in transportation costs relative to income. As density

increased, households saved more on transportation than they spent on increased housing – creating an overall net decline in household spending.¹²²

- An analysis of Location Efficiency (LE) across income levels found that households in locationefficient places spent less on transportation, enough to offset higher housing costs. These findings, however, did not extend very low-income households but still support the need for housing and transportation investments.¹²³
- In California, households living in Transit-Oriented Developments (TODs) save an average of 18% annually on transportation expenditures when controlling for household demographics - \$1,232 per year. These savings can be attributed to the households owning fewer vehicles due to living in transit-friendly neighborhoods and having access to rail transit.¹²⁴
- A 2014 Rutgers study showed four key findings: 1) the promotion of public transit in poorly served areas should be expected to reduce household transportation costs. 2) policies that deter auto use may also lower household transportation costs. 3) Households moving to older parts of cities should reduce transportation costs due to lower car ownership and mode shift to walking, biking, and transit. The study did not, however, indicate that new construction of compact neighborhoods would reduce housing and transportation costs. 4) Finally, 20th century increases in household transportation costs in the U.S. has in part been driven by increased preference for suburban living which increases household dependence on cars, and these car trips are increasingly no longer just commute trips.¹²⁵

APPENDIX II : Community Input Survey Full Results

327 people responded to the Community Input Survey, consisting of 37 total questions, including questions on respondent demographics, commute and non-commute transportation modes, and what may motivate them to



120 Bureau of Labor Statistics. (2022) Consumer Expenditures - 2021. Retrieved 5 January 2023, from https://www.bls.gov/news.release/pdf/cesan.pdf 121 Ibid.

122 Hamidi, S., & Ewing, R. (2015). Is Sprawl Affordable for Americans?: Exploring the Association Between Housing and Transportation Affordability and Urban Sprawl. Transportation Research Record, 2500(1), 75-79. https://doi.org/10.3141/2500-09

123 Makarewicz, Carrie, Dantzler, Prentiss & Adkins, Arlie (2020) Another Look at Location Affordability: Understanding the Detailed Effects of Income and Urban Form on Housing and Transportation Expenditures, Housing Policy Debate. https://doi.org/10.1080/10511482.2020.1792528

¹²⁴Hongwei Dong. (2022) "Can Californian Households Save Money on Transportation Costs by Living in Transit-Oriented Developments (TODs)?" Mineta Transportation Institute Publications. https://doi.org/10.31979/mti.2022.2012

125 Devajyoti, D. (2015). "Relationship Between Households' Housing and Transportation Expenditures Examination from Lifestyle Perspective." Transportation Research Record: Journal of the Transportation Research Board, No. 2531, pp. 26-35. https://journals.sagepub.com/doi/epdf/10.3141/2531-04

choose driving less. The survey included participation by community members, employers, and property managers. The survey was conducted in late 2022 through April 2023 as part of the plan update process.

What is your approximate household income? n = 311

Saves time

- Need car for transporting groceries or other items
 - No reasonable transit options
 - Prefer to drive my own car
 - Need to transport my children
 - Poor bicycle and/or pedestrian access
 - Parking is free or inexpensive

- More frequent/convenient bus service
 - Nothing would motivate me
 - Better pedestrian/bicycle access
- Secure or more prevalent bicycle parking
 - Financial subsidy for bus fare 13.4%
 - Rewards, prizes or incentives 12.2%
- Better information about when the bus is... 9.8%
 - Knowing what my options are 7.3%
- Assistance finding transit or bike route 4.9%









If you most often use a mode other than driving alone for commute trips, what motivates you to do so? (Choose up to five.)

n = 145



What are your main reasons for driving alone for day-to-day non-commuting trips? (Choose up to 3). n = 163



What would motivate you to use an alternative mode to driving alone for non-commuting trips? (Choose up to three.) n = 159

What would motivate you to use an alternative mode to driving alone for non-commuting trips? (Choose up to three.) n = 159



If you most often use a mode other than driving alone for non-commute trips, what motivates you to do so? (Choose up to five.)

n = 127

Employers











On days when they come into the office, what percentage of your employees do you estimate typically use a commute mode other than driving alone, such as transit, carpool, vanpool, walking, or biking? n = 3



What percentage of your employees do you estimate would be interested in receiving information, assistance or financial incentives to help them try commute modes other than driving alone on days when they come into the office?



Do you think that increasing the feasibility of commuting by modes other than driving alone on days they come into the office would make your company more attractive to employees? n = 3





Free consulting assistance to help with development of

that have very low staffing impact

What would motivate you to provide or enhance a commute incentive program for your employees in the next five years, other than telework? (Choose up to three.) n = 3



Highly likely Somewhat likely Not at all likely Don't know Already providing

In general, how likely are you to provide, or continue to provide, a commute incentive program for in-office days to your employees in the next five years?



For in-office days, do you think that increasing the feasibility of commuting by modes other than driving alone would increase your attractiveness to employees? n = 3





What percentage of your tenants or tenants' employees do you estimate typically use a commute mode other than driving alone on in-office days, such as transit, carpool, vanpool, walking, biking? n = 1





Do you think that increasing the feasibility of commuting or traveling by modes other than driving alone to/from your building on in-office days would make it more attractive to tenants? *n* = 1





In general, how likely are you to provide an in-office-day commute incentive program to your tenants or building employees in the next five years?



Other (please specify) 0

What would motivate you to provide or enhance an in-office-day commute incentive program for your tenants or building employees in the next five years? (Choose up to three.)



Before taking this survey, were you aware of any of the following Choose your Way Bellevue programs or services? (Choose all that apply.) n = 276



How did you hear about the Choose Your Way Bellevue programs and services mentioned in the previous question? (Choose all that apply.)



0% 5% 10%1 5% 20%2 5% 30%3 5% 40%4 5% 50%

Are these programs or services useful to you? *n* = 276



Convenience Time savings Cost savings Whether the alternative mode is feasible Stress reduction Environmental factors Health Benefits Financial incentives 8.3%

When choosing or considering a non-drive-alone transportation mode (other than telework), which

Which of the following have the greatest impact on your transportation mode choice, or that of your employees/tenants? (Choose up to five.) n = 276



factor(s) are most significant to you, or to your employees/tenants? (Choose up to three.) n = 275



If offered a monthly financial incentive for trying a mode other than driving alone (other than telework), what is the minimum incentive amount that would motivate you, or your employees or

tenants, to participate? n = 261

Open-Ended Questions



What do you think the city should do to increase the use of modes other than driving alone? Ten most frequently mentioned themes. n = 276

Safety for pedestrians and cyclists

Improving public transportation

Need for better bus routes and schedules

Bike infrastructure and lanes

Car dependency and prioritization

Concerns about dangerous driving General suggestions for transportation improvement

> mentions Improving traffic conditions

Parking availability and management

Accessibility for elderly and disabled individuals

► Commute Trip Reduction

The Commute Trip Reduction program is cornerstone of how TDM is conducted in Bellevue and thus warrants special mention.

The 1991 state Commute Trip Reduction law was enacted to help reduce vehicle emissions and congestion. Commute Trip Reduction regulations, chapter 70A.15.4020 of the Revised Code of Washington and City Code 14.40, affect worksites of 100 or more fulltime employees who begin their workdays between 6 and 9 a.m. CTR requires these worksites to develop and manage their own programs to reduce commute trips, and measure and report on those programs. If progress is not made, employers must change their programs. With city assistance, worksite employee transportation coordinators manage programs, as well as biennial employee surveys on commute mode and vehicle miles traveled and biennial reporting.



Do you have any additional comments or feedback? Ten most frequently mentioned themes. *n* = 114

The state requires jurisdictions to develop local plans to guide their CTR programs. The most recent 2015-2019 Bellevue CTR Plan was adopted in 2015 and extended by Washington State Department of Transportation through 2025. The full text of the current Bellevue CTR Plan can be found in Appendix III.

The CTR Plan sets forth targets for commute nondrive-alone rate and vehicle miles traveled. However, employers are not penalized for failing to meet targets. Rather, they must show a "good-faith effort" toward conducting required activities such as having a CTR program, and measuring and reporting outcomes, to avoid civil penalties. As of December 2022, 61 Bellevue employers are engaged in the CTR program; approximately 56,900 employees work at these sites, accounting for over one-third of the employees in Bellevue. Analysis shows that CTR activities at these 61 large worksites are associated with a reduction of 3,100 vehicles from Bellevue roadways each day.

APPENDIX III : Bellevue Commute Trip Reduction Implementation Plan

Commute Trip Reduction Implementation Plan Update: 2015–2019

Jurisdiction: City of Bellevue

September 2015

Goals, targets and other performance measures

See Goal and Target Worksheet (attached).

Strategies

What specific steps and strategies will you implement to meet your goal? Please include (a) policies and regulations, (b) services and facilities, and (c) marketing and incentives.

(a) Policies and Regulations

The City will implement a Commute Trip Reduction (CTR) program based on its CTR ordinance and the state CTR law, through which affected employers are required to conduct certain activities at affected worksites. These include:

- Designating an employee transportation coordinator;
- Developing a trip reduction program and distributing information about it;
- Measuring employee commute trip reduction;
- Modifying programs as needed when not meeting goals/targets; and
- Reporting about their programs.

The City will take actions to support the program, based on the Comprehensive Plan's policy TR-10: "Require large employers to implement a commute trip reduction program for employees, as mandated by the state Commute Trip Reduction law, and evaluate program effectiveness on a regular basis."

(b) Services and Facilities

City services for affected employers will comprise engaging trip reduction contractors to assist employers in meeting CTR program requirements and conducting marketing, incentive and education programs for their companies. Specific services include the following:

- Train all new employee transportation coordinators (ETCs) and new sites to ensure that they have an understanding of the requirements of the law, implementation strategies and their site's performance to date.
- Track and notify employers of legally required activities and provide technical assistance to all employers for legal compliance.
- Ensure ETCs meet their program information distribution requirements.

 Help ETCs become a major resource to commute information, tools for comm promotions, and opportunities to atter quarterly).

 Conduct special projects as needed to Key facility investments that support pedestria projects in the funded 2015-2021 Capital Inves

- PW-R-146, Northup Way Corridor Impr
- PW-R-159 & 181, East Link (light rail) A Understanding Commitments
- PW-R-162, NE 6th Street Extension Ianalysis)
- PW-R-176, Early Implementation of the corridor analyses, pedestrian and bicyc enhancement projects)
- PW-R-177, Eastgate Subarea Plan Imple to and through the Bellevue College car
- PW-R-182, Downtown Transportation
- PW-R-183 West Lake Sammamish Parky enhancements on this important north-
- PW-R-184 Bellevue Way SE HOV Lane -
- PW-R-185, Newport Way improvemen facility improvements
- Programmatic projects throughout the Improvements; PW-W/B-76, Neighborh Compliance (ADA enhancements)
- PW-W/B-78 Mountains to Sound Greer
- PW-W/B-81, 108th/112th Aves NE No pre-design/analysis only)
- PW-W/B-82, SE 16th Street 148th to only)

In addition to these specific projects, the Pedes by the City in spring 2015, provides a set of act motorized projects and programs identified by The initiative includes principles to provide dire public outreach and data-driven technical resea

(c) Marketing and Incentives

In order to support employer CTR efforts, the C affected employers and/or conduct the followi

- Assist ETCs with marketing of commute
- Assist ETCs with marketing of turnkey a Work Month/Day, promotions of new
- Assist employers with employee event
- Assist employers with creation of complexity
- Post employer case studies on the City <u>www.ChooseYourWayBellevue.org</u>.

their employees by providing them with up-to-date
unicating with employees, turn-key commuter
nd employer network group meetings (typically held
enhance program effectiveness
n bicycle and/or transit travel include the following
tment Program:
ovements (bike lane/sidewalk improvements)
nalysis and Development, and Memorandum of
405 HOV Interchange to 120th Ave. NE (pre-design
Downtown Transportation Plan (including multimodal)
cle facility improvements and transit passenger access
ementation - advance two key priorities: transit access
mus and higher lanes on Eastgate Way
Plan/NF 6th Street Light Bail Station Enhanced Access
way (Phase 2) – Extend nedestrian and bicycle facility
-south corridor
- 112th Ave SE 'Y' to I-90 (design)
ts, Somerset Blvd. to 150 th Ave. SE, sidewalk and bicycle
city: PW-W/B-56, Pedestrian & Bicycle Access
hood Sidewalks; PW-W/B-49, Pedestrian Facility
nway Trail (complete design of priority segments)
156th Aves SE (bike lanes and sidewalks, pre-design
strian and Bicycle Implementation Initiative, launched
ion-oriented efforts to advance additional non-
the 2009 Pedestrian and Bicycle Transportation Plan.
ection, as well as task elements supported by targeted
arch and analysis, to advance the 2009 Plan.
ity will engage trip reduction contractors to assist
ng marketing and incentive activities:
e programs
and other programs such as Wheel Options and Bike to
transit service, construction avoidance, etc.
s such as commuter fairs.
pany commute option brochures.
's travel options website,

- Encourage and assist ETCs in use of the RideshareOnline tool to develop company-wide networks and incentives through the system. Help ETCs promote employee use of the ride matching and trip logging functions, as well as participation through the system in active campaigns such as On The Move Bellevue (www.OnTheMoveBellevue.org) for which their employees are eligible.
- Encourage participation of CTR employers (especially those who have not been meeting performance targets) in new/enhanced TDM activities the City will be conducting with new CMAQ grant funds passed through from WSDOT. These may include:
 - rebates provided to employers for transit passes or other non-drive-alone transportation benefits purchased for their employees;
 - a turnkey RideshareOnline program through which staff run the program on behalf of employers;
 - employer mini-grants to fund employer campaigns and/or incentives to encourage participation; and
 - a new parking cash-out program, in which employees are subsidized for trying a new non-drive-alone mode for a period of time without giving up their parking space, and employers are encouraged to transfer the subsidy used for parking to a non-drivealone mode for employees who are interested. These activities are anticipated to boost performance for worksites for which traditional CTR has not been wholly successful.
- Actively promote alternatives to drive-alone commuting at worksites targeted by location, corridor, industry or lack of progress toward goal.
- Promote travel options to employers/employees through the City's existing electronic travel options newsletters for employers and employees; social media platforms; and the www.ChooseYourWayBellevue.org website and www.OnTheMoveBellevue.org web page.

In addition, the City anticipates conducting research such as enhanced survey data analysis and/or focus groups with key representatives of CTR-affected employers to help identify barriers to (and catalysts for) performance success in increasing non-drive-alone travel and reducing vehicle miles traveled. This work may be funded outside of the state CTR grant.

Comprehensive planning & community goals

Governor's Executive Order 14-04 Washington Carbon Reduction and Clean Energy Action directs state agencies to assist local governments to update their comprehensive plans to produce travel and landuse patterns that maximize efficiency in movement of goods and people and reduce greenhouse gas emissions.

How does trip reduction support the goals of your community and comprehensive plan, and vice versa? How will you further integrate trip reduction through the updating of your comprehensive plan (e.g., parking, land use)?

There are several recent and upcoming Comprehensive Plan and City Code updates that have been or will be coordinated with the City's CTR and GTEC plans.

(a) Downtown Planning Efforts:

- implement the CAC's work, with code changes and design guidelines anticipated to be decided on by the Council in 2016.

These efforts continue to promote a dense, multimodal, walkable environment, making downtown a desirable place for employers to locate. In turn, employer CTR programs help increase transit ridership and use of non-drive-alone modes, making those modes more sustainable.

reduction efforts.

 Downtown Transportation Plan Update: This plan update launched in 2011 and has focused on updating the transportation portion of the **Downtown Subarea Plan** that was adopted in 2004. The plan update considered and incorporated forecasted growth in population and employment through 2030 and developed a multimodal strategy to accommodate both motorized and non-motorized transportation demand. The final October 2013 Transportation Commission Recommendations support commute trip reduction efforts with planned improvements in transit service as well as improvements for other non-drive-alone modes. Downtown Transportation Plan policies and projects will be integrated with the Downtown Livability Initiative (see below), to result in a full package of Comprehensive Plan Downtown Subarea Plan and land use code amendments for Council consideration in 2016. Downtown Livability Initiative: This is a targeted review launched in 2012 of specific regulations that guide downtown development and land use activity. Objectives are to: better achieve the vision for downtown as a vibrant, mixed-use center; enhance the pedestrian environment; improve the area as a residential setting; enhance the identity and character of downtown neighborhoods; and incorporate elements from the Downtown Transportation Plan Update and the Sound Transit East Link light rail design work. One regulation area that was analyzed was the downtown parking code. In support of this analysis, City TDM staff produced the 2013 Downtown Commuter Parking Assessment Report, in which a consultant was engaged to develop recommendations on "right-sizing" the office parking supply to align with the City's downtown long-range vision and goals, including mode share goals identified in the Comprehensive Plan and existing Downtown Subarea Plan. Within its 2014 recommendations, the Downtown Livability Citizen Advisory Committee recommended follow-up work to "Conduct a comprehensive parking study to include items such as on-street parking, potential for public garages, and opportunities for coordinated management of the parking supply such as valet or shared use, etc." As of 2015, the City Council is in the process of reviewing the CAC's recommendations prior to providing direction on the next steps to

(b) Citywide Transit Master Plan: The City Council adopted the Bellevue Transit Master Plan in July 2014. The plan replaced the 2003 Transit Plan with a comprehensive 20-year look ahead to the type of transit system that will be required to meet Bellevue's transit needs through 2030. Although the City does not operate its own transit system, the Transit Master Plan can positively influence regional transit agencies so as to provide routes and levels of service that best address mobility needs in Bellevue. The plan envisions a public transportation system that serves a variety of populations and trip purposes and that is the mode of choice for an increasing number of people who live, work, shop and play in Bellevue. The enhancement of transit and the City's CTR program are mutually supportive of each other; as the CTR program helps to build the market for transit use, the plan will make this service more viable and assist employers with their trip

(c) Citywide Comprehensive Plan Update: <u>Bellevue's Comprehensive Plan</u> captures the community's vision for the future and provides direction for City regulations and investments. The City Council adopted an update of the Comprehensive Plan in August 2015. TDM staff worked with Comprehensive Planning staff on several components of the updated plan, including minor text revisions of the Transportation chapter's TDM component and the updating of comprehensive mode share targets to complement other City goals and targets, including CTR. Updated 2035 mode share targets were developed for downtown (all workers) and citywide (all workers and residents), replacing the targets in the previous Comprehensive Plan that only captured workers in certain activity areas of the city. Progress toward the new targets is anticipated to be measured using U.S. Census American Community Survey data. In support of the targets, Policy TR-8 says to "Establish targets to increase the proportion of commute trips by modes other than driving alone (see Table TR-1). Periodically evaluate progress toward these targets and adjust programs and activities as needed to achieve them." Also included in the Comprehensive Plan is continued support for the CTR program in Policy TR-10, "Require large employers to implement a commute trip reduction program for employees, as mandated by the state Commute Trip Reduction law, and evaluate program effectiveness on a regular basis."

Land use and transportation conditions

How do existing and future anticipated land-use and transportation conditions affect CTR worksites?

Bellevue's Comprehensive Plan's <u>Land Use</u> chapter assigns growth primarily to dense activity centers, especially downtown. The City's land use policies are set up to accommodate this growth. Nearly 80% of Bellevue's 2012 jobs are located in the following three employment centers: Downtown, Bel-Red/SR 520; and Eastgate/Factoria.

Bellevue is the state's fifth largest city where about 134,000 people live and 140,000 people work. By 2035, Bellevue is anticipated to add 15,800 more housing units and 51,800 more jobs. Downtown Bellevue is a Puget Sound Regional Council-designated Regional Growth Center expected to accommodate about half of the city's housing and job growth. Most of the housing and job growth outside of downtown is expected to occur in other mixed commercial and residential centers, including Bel-Red, Eastgate and Wilburton. A small amount of growth is anticipated in other areas spread throughout the city through natural redevelopment and infill that is allowed under current zoning.

A principle highlighted in the Land Use chapter is that integrating housing and employment with a range of transportation options makes it easier to get around. Having shopping and recreation nearby encourages walking and biking, reducing congestion on the streets and supporting vibrant and healthy communities. Higher densities and a mix of uses encourage walking and transit use. Understanding future land uses also helps the city design and build transportation facilities that continue to work as the city grows.

In addition to the goals indicated above, the following <u>Transportation</u> chapter "Transportation and Land Use" policies further support commute trip reduction:

- Policy TR-1, "Integrate land use and transportation decisions to ensure that the transportation system supports the Comprehensive Plan land use vision";
- Policy TR-3, "Direct transportation investments and service to support the Urban Centers growth strategies of the Countywide Planning Policies"; and
- Policy TR-8, "Incorporate transit-supportive and pedestrian-friendly design features in new development."

These transportation and land use policies have shaped current conditions, and will continue to shape future conditions, to be more conducive for commute trip reduction, which in turn helps to maintain overall mobility in the city.

Financial plan

What are the anticipated funding sources and amounts for local trip reduction, including grants and local funding?

Bellevue's primary source of CTR program funding will be the state CTR grant, which historically averages approximately \$205,000 per biennium. As per historic practice, Bellevue anticipates using these state funds on the traditional program elements directed by state CTR law and local CTR ordinance. In addition, the City anticipates continuing its historic practice of contributing approximately \$3,000 to 5,000 per biennium in additional local funding to be focused on special projects and enhanced activities beyond the traditional CTR program. These added resources will continue to be used for program enhancements such as additional reporting from the City's CTR services contractor on worksite program elements; ETC conference registration fees; and specialized trip reduction campaigns, such as for Earth Day or Bike to Work Month/Day. For the 2015-2017 biennium, the special projects will likely be funded by the 2012 and/or 2014 CMAQ GTEC Expansion and Regional TDM grants passed through to the City by WSDOT. Research (such as focus groups) may be funded by a separate source other than the state CTR grant in order to enhance and make the most of the City's CTR program without taking away funding for ongoing program implementation.

GTEC report (if your jurisdiction has a designated GTEC)

Are you continuing to implement?

Optional: Describe the (a) strategies, (b) land use and transportation conditions, (c) population and employment demographics, and (d) financial plan, and how they differ from those in the CTR plan.

Introduction:

The City will continue to implement its Downtown Bellevue GTEC program. In Bellevue, GTEC activities have been extended citywide since 2014, and this is anticipated to continue through this plan period. However, downtown will continue to be an emphasis area for the City's TDM program. Concentration of outreach and uptake of services, assistance, and program participation is anticipated to be greater in downtown than in other parts of the city, due to its dense land use and transit service that make non-drive-alone modes more viable. In addition, the Comprehensive Plan update adopted by the City Council in August 2015 includes a 2035 non-drive-alone commute mode share target of

65% for downtown, so the City will be tracking progress toward that target over time using U.S. Census American Community Survey data.

(a) Strategies:

Strategies are anticipated to be similar to, and build on, previous GTEC activities, and are directed at multiple TDM audiences beyond CTR-affected employers. These audiences include employers (generally those with five or more employees), property managers, workers and residents. Activities are suited to these broader audiences and are anticipated include the following:

• *Employer/property manager activities.* Through the City's existing "Commute Advantage" brand for employers and property managers (information at

http://www.chooseyourwaybellevue.org/employers-advantage/), activities may include:

- Consulting services for commute benefit programs;
- Assistance setting up rideshare/trip logging/incentive campaigns,
- Expert consultant assistance with telework and parking management programs;
- Mini-grants for RideshareOnline campaigns or minor capital projects such as bike parking/amenities;
- Commute benefit rebates, especially for employer ORCA Passport programs;
- Facilitation of guaranteed ride home programs; and/or
- Parking cash-out, in which employers who have the ability to change the number of parking spaces they lease each month can sign up for a program in which the City covers the cost of employees trying an alternate commute mode for a term-limited time without yet giving up their parking space, after which such employees can elect to change to an alternate mode paid for by their employers.

Special outreach efforts are anticipated to be directed toward employers who are new to Downtown Bellevue.

- Individual worker and resident activities. These may include:
 - Continued implementation of On The Move Bellevue trip logging and incentive program, which includes a "Perks" program for local business discounts (information at <u>www.OnTheMoveBellevue.org</u>);
 - Continued provision of one-stop information about using non-drive-alone modes provided on <u>www.ChooseYourWayBellevue.org</u>;
 - Bicycle-specific promotion and information including bike maps and maps showing available bike racks and amenities, as well as promotion of Bike to Work Month and Day and, potentially, enhanced bicycle wayfinding;
 - Facilitation of parking needs to support non-drive-alone transportation, potentially to include carpool and vanpool parking facilitation with building managers; support for provision of additional carpool/vanpool parking; and/or park-and-ride lot information and/or maps.
 - Enhanced planning, implementation, promotion and/or information provision about real-time information, mobile apps, and other transportation-related technologies.

Special outreach efforts are anticipated to be directed toward new workers or residents to Downtown Bellevue. In addition, the City will conduct research, planning/administration and measurement efforts related to these strategies.

(b) Land use and transportation conditions:

As of 2015, there are 9,078,125 square feet of office space and 3,817,883 square feet of retail space in downtown. Traffic volumes along certain key arterials have remained relatively steady for the last

20 years, and only one intersection in downtown exceeds the City's adopted downtown level of service standard. Transit service is robust: in spring 2013 the Bellevue Transit Center served 17,772 daily boardings and alightings ("ons and offs"), or about 33 percent of citywide ons/offs. The non-drive-alone commute mode share for downtown workers is 29% (source: Census Transportation Planning Package, based on data from the 2006-2010 American Community Survey 5-year estimates for downtown census tracts 238.03 and 238.04).

(c) Population and employment demographics: Downtown Bellevue is the densest urban center and functions as the commercial hub of the Eastside. From 2012 to 2035, downtown employment is estimated to grow from 44,800 to 76,800, a net addition of 32,000 jobs, or 71% over eighteen years. In 2012 there were 10,500 residents in downtown, and this figure is anticipated to grow to 20,500 by 2035, an increase of 95%. The significant level of anticipated growth calls for trip reduction activities directed not only at CTR worksites but also to small employers, property managers, workers, and residents, in order to retain overall mobility.

(d) Financial plan:

Activities in the Downtown Bellevue GTEC are anticipated to be funded primarily through the 2012 and/or 2014 CMAQ GTEC Expansion and Regional TDM grants passed through to the City by WSDOT. Local funds and staff resources are anticipated to supplement the grant funds, primarily focused on ongoing, fundamental TDM activities such as the Choose Your Way Bellevue website and monitoring and assisting large buildings that have Transportation Management Program requirements. In addition, CTR funds directed to assist downtown employers will contribute to downtown trip reduction efforts.

What specific policy, service changes and land-use steps will be accomplished during this period for the GTEC area?

As part of the <u>Downtown Transportation Plan Update</u>, the City recently conducted travel demand forecasting based on expected demographic changes (see item (c) above). (These demographic changes are tied to anticipated land use changes that are consistent with the City's policy to accommodate significant growth within downtown.) This forecasting indicated that programmed roadway capacity projects in and around downtown are expected to provide an adequate vehicular level of service in 2030, while significant improvements are needed in pedestrian and bicycle facilities and transit service and facilities. Thus, the plan update is not likely to include major roadway capacity projects but rather to embrace enhancements for modes other than driving alone. Enhancing these modes will provide synergy with GTEC trip reduction efforts. Funding in the City's adopted 2015-2021 Capital Investment Program will provide early implementation of Downtown Transportation Plan projects during this period (CIP PW-R-176). Crosswalk enhancements, new mid-block crossings, bicycle facilities, and transit passenger access amenities are planned, as well as improvement of access to new development and to the downtown light rail station planned to be adjacent to City Hall and the existing Bellevue Transit Center.

Land use changes will be guided by the City's <u>Downtown Livability Initiative</u>. The Citizens' Advisory Committee for this project developed <u>recommendations</u> that will be considered by Council in 2016. Many of the recommendations relate to Design Guidelines changes to influence development to

create a functional, safe, aesthetically pleasing and vibrant downtown. The recommendations also include allowing increased building height and density in exchange for provision of exceptional amenities.

Regional transportation planning organization CTR plan review

Recommended

□ Not recommended

RTPO comments:

Commute Trip Reduction Goals and Targets Worksheet: 2015-2019

Jurisdiction: City of Bellevue

Goals, targets and other performance measures

State goals for the 2019/2020 survey period include an increase of non-drive-alone travel (NDAT), and reductions of VMT and GHG. What are your percent targets for the 2019/2020 survey period?

	2007-2008	Percent Change	<u>2019-2020</u>
NDAT	36.8%	+16.3%	42.8%
VMT	11.4	-18%	9.4
GHG	11.4	-18%	9.4
ater Describe how targets were set for the goals			

Targets: Describe how targets were set for the goals.

NDAT:

The state's overarching state-level goal for NDAT (statewide) is to reach an absolute level of 40% nondrive-alone travel (NDAT) during this period.

At a statewide level, this is a six-percentage point increase. Thus, the state has directed jurisdictions choosing to utilize state goals and targets to increase their NDAT by six percentage points. The City of Bellevue has opted to utilize the state goals and targets as our own.

The state has provided a spreadsheet tool to help jurisdictions identify targets to match state targets. In this tool, the state calculated Bellevue's baseline NDAT as 36.8%, and target NDAT as six percentage points higher, or 42.8%. Thus, these figures are shown above.

In terms of percent change, the NDAT increase translates to 16.3 percent (42.8% is 16.3% higher than 36.8%). Thus, this is the figure identified above for "Percent Change."

VMT and GHG:

The state's overarching state-level goals for vehicle miles traveled (VMT) and greenhouse gas (GHG) emissions are to reduce each by 18% by the 2019-2020 survey cycle.

September 2015

The City of Bellevue has opted to utilize state targets as our own. Based on the state-level target of 18% reduction in VMT, the City is setting the same VMT reduction target of 18%. This would result in 9.4 VMT per person in the 2019-2020 survey cycle.

The state has opted to calculate the GHG target directly from VMT and has directed jurisdictions to do the same. Thus, the GHG target is 18%, or 9.4 VMT per person—the same as the VMT target.

Measurement: How will you measure progress toward your targets?

The City will measure progress toward the targets using the state-provided CTR survey instrument and surveying framework, as well as state-provided data processing services.

Other performance measures: What other types of TDM performance goals and targets has your jurisdiction established? What are you trying to accomplish? How will you measure progress toward those goals?

An update of Bellevue's <u>Comprehensive Plan</u> was adopted by City Council on August 3, 2015, with updated targets for percentage of commute trips by non-drive-alone mode. Specifically, the update includes 2035 commute non-drive-alone rate targets for downtown workers (65%), citywide workers (40%), and citywide residents (45%). These targets represent a change from previous Comprehensive Plan mode share targets, which comprised the percent of commute trips by drive-alone-mode for workers in five activity areas in the city, including downtown. The anticipated mechanism for measuring progress toward the updated targets is the U.S. Census American Community Survey. Since CTR workers are a subset of all city workers, CTR performance toward the targets will be monitored separately (and alongside) these Comprehensive Plan performance measures.

A 2015-2023 Bellevue TDM Plan is under development and anticipated for completion in late 2015. This plan will establish interim 2023 targets for the Comprehensive Plan's 2035 targets described above.

DR

