BENEFITS OF TRANSIT REPORT

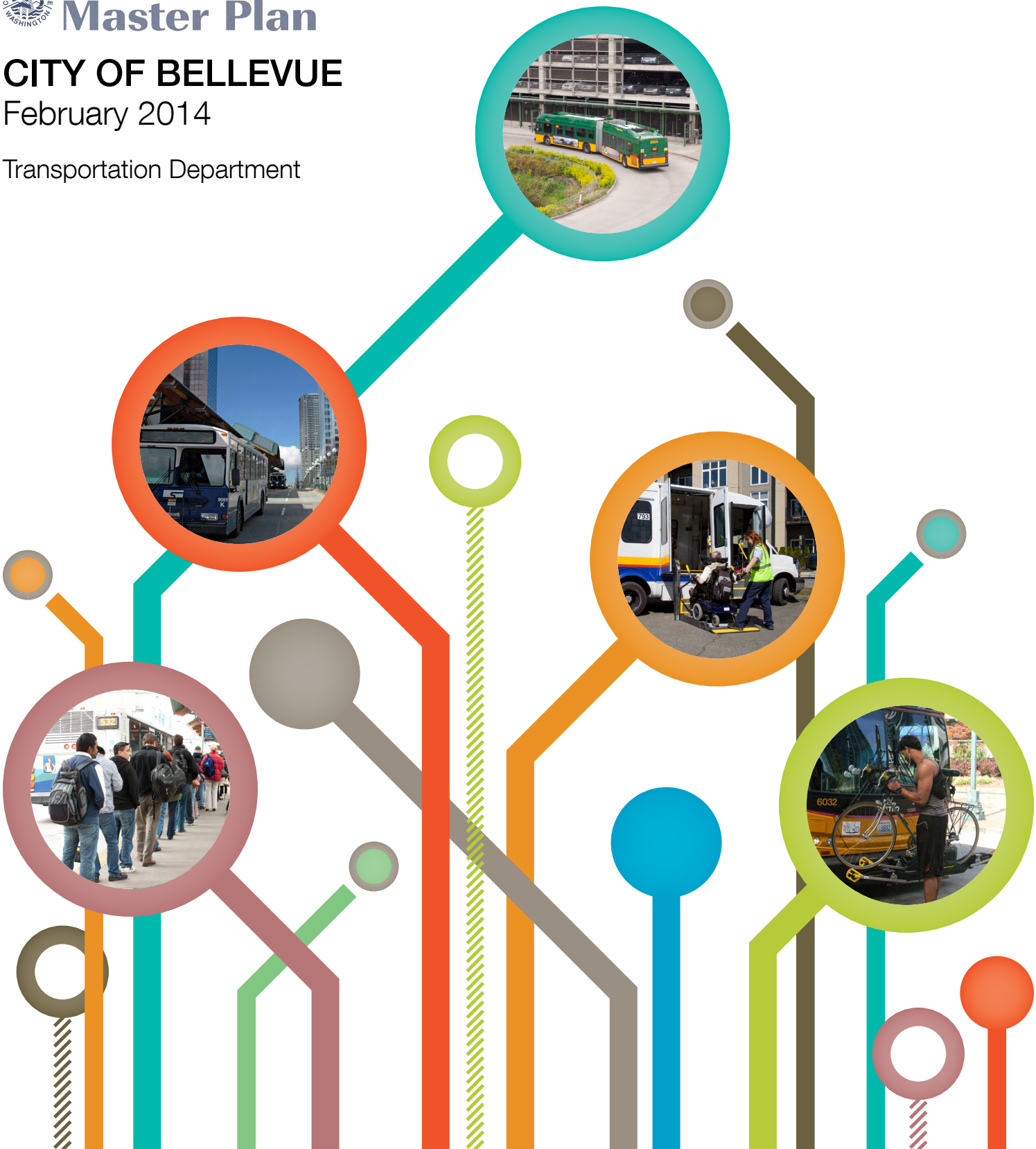
Draft

Bellevue Transit Master Plan

CITY OF BELLEVUE

February 2014

Transportation Department



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INTRODUCTION

The Bellevue Transit Master Plan (TMP) will establish short- and long-term policies and projects that help foster a high-quality transit system that is more effective at connecting residents, employees, and visitors in Bellevue with the places they want to go. This report seeks to build support for the promotion of and investment in transit services and its associated infrastructure by connecting the benefits provided by transit to wider community objectives. In doing so, it is hoped that this report can clarify the discussion between municipal and transit planners, private developers, homeowners and renters, employers and employees, and other stakeholders in Bellevue—some of whom may perceive transit as counter to their goals—by providing a common understanding of what outcomes high-quality transit can be expected to facilitate.

It is important to emphasize that some of the benefits provided require coordination between plans for transit and land use: frequent transit service depends on transit-supportive land use to remain viable, and more compact urban neighborhoods depend on transit to be livable. Bellevue's Comprehensive Plan has already established policies to help it pursue its vision of a city that is diverse, dynamic, vibrant, livable, a steward of environmental quality, and a community that meets the needs of all citizens. By providing a summary of the available literature on the subject, this report explains how transit can play a role in realizing this vision for Bellevue.

OVERVIEW

Effective transit can make a place more livable, more accessible, more sustainable, and enhance local quality of life. These benefits are well understood by transportation professionals and academics, and supporters of transit may take these truths to be self-evident. But to the average resident, developer, business-owner, or bus rider—or moreover, to the person commuting by car every day stuck sitting in traffic while buses pass by in the HOV lane—it may be less clear what benefits transit provides to them. Beyond buzzwords like 'sustainability' and 'livability', what outcomes can a city anticipate when considering the extent to which it should support and invest in transit?

A major theme arising from the Transit Master Plan's outreach to city boards and commissions, transit agency representatives, and local stakeholders is the idea that transit is an essential component of the City's mobility strategy and an increasingly important tool for addressing Bellevue's anticipated growth in travel. *Transit Master Plan Forum* participants spoke of the many ways that transit benefits Bellevue, including:

(i) **Economic Benefits** – Businesses, especially large employers, frequently locate in communities with strong public transit services;

(ii) **Environmental Benefits** – Cities benefit from reduced traffic congestion and improved air quality when people take transit;

(iii) **Community Benefits** – Since transit requires less land and energy than the private car to move the same number of people, it is often cheaper to meet mobility needs with transit rather than through other measures such as road widening or new parking facilities;

(iv) **Individual Benefits** – Public transportation provides an affordable, and for many, necessary, alternative to driving.

Figure 1 Efficient, useful, well-utilized public transit services provide a variety of benefits, summarized here in four broad categories: benefits to the economy, environment, community, and individuals.

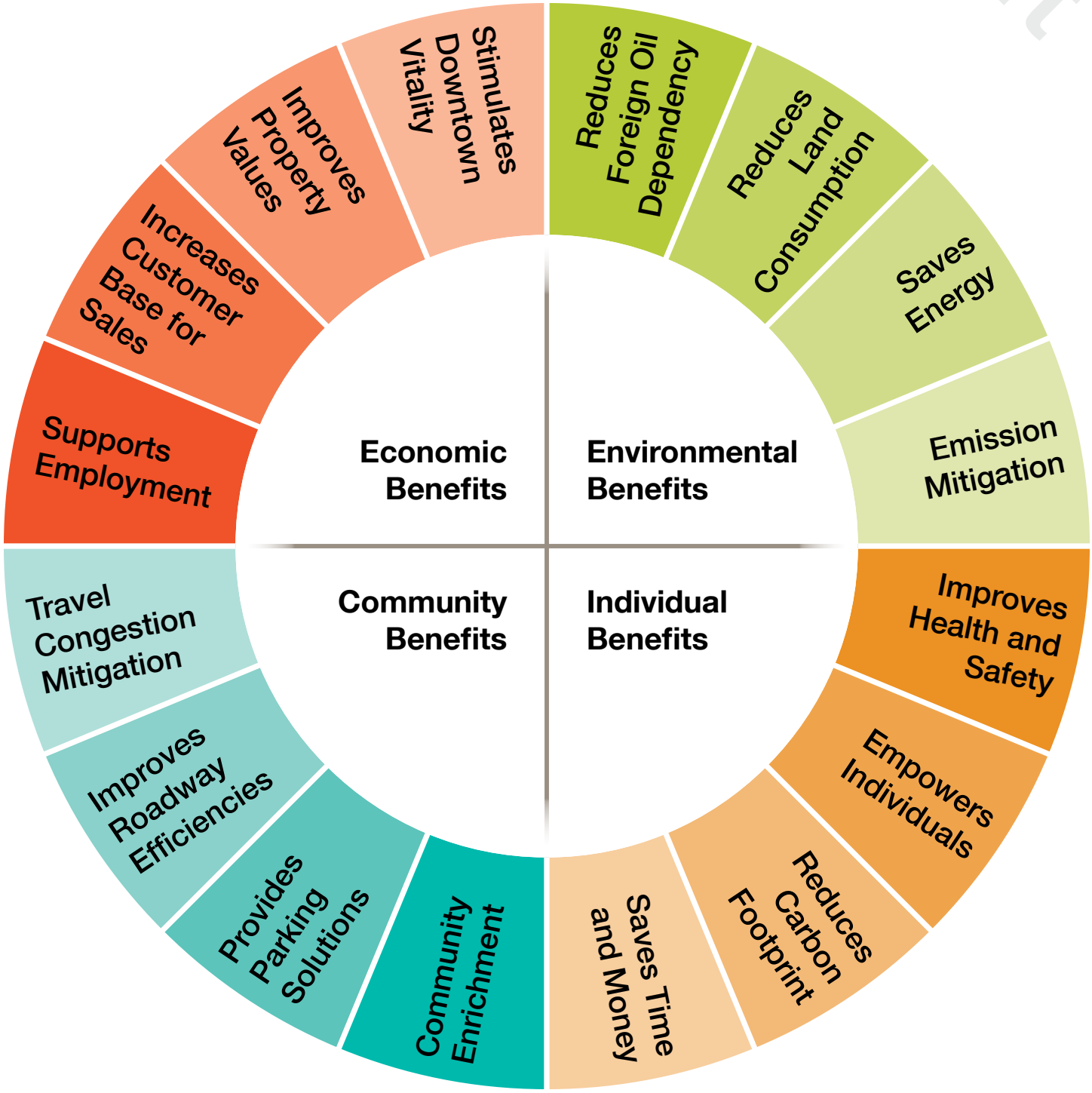

Figure 2 The Puget Sound Regional Council (PSRC) identified numerous benefits to people, communities, the environment, and transit providers in its *Transit Supportive Planning Toolkit*.

Input from this outreach prompted a more thorough investigation into the underlying assumptions about the benefits of transit. A great deal of literature has been published on the myriad ways that transit can benefit a community, and this report does not attempt to be a comprehensive review of all that information. Rather, it seeks to briefly summarize some of the more notable findings of relevance to Bellevue's context—that is, to a growing city with urban centers and suburban neighborhoods, whose current bus-only transit system will in the coming years be expanded and improved to include more frequent bus services and East Link, a major regional light rail service. As shown in Figure 1, these findings are organized according to the four broad categories identified by TMP Forum participants: benefits to the economy, environment, community, and individuals.

Based on these categories alone, it can be seen that transit users are not the only people who benefit from transit service. Indeed, transit services and transit-supportive development can provide a wide range of benefits across many sectors of a community, including those who may never use the service directly themselves. For example, while transit riders may benefit from lower transportation costs (compared to regular automobile use) and greater passive exercise—neither of which non-riders will realize—non-riders would still benefit from reduced overall traffic congestion, improved air quality and property values, and a more robust local economy. Transit makes communities more inclusive by connecting those who are too young to drive to school, those who are too old to drive to loved ones, leisure activities, and health care services, and those who cannot afford a vehicle or are physically unable to drive to all of the same employment and recreational opportunities that the rest of society enjoys. Transit can also help the city make more efficient use of its developable land and improve the efficiency and reduce the costs of building and maintaining infrastructure systems.

The remainder of this document is divided into four sections, each with four sub-sections, consistent with the categories and themes identified in Figure 1. Multiple statistics and, to the extent possible, multiple sources are provided for each of the benefits found to be associated with transit. All sources are documented in the References section at the end of the document for any readers interested in digging deeper into the studies conducted to arrive at the information presented here.

"A balanced, multimodal transportation system with effective transit makes our communities more livable and sustainable and provides a higher quality of life. Implementing our regional vision depends on excellent transit service"

PAGE 3, TRANSIT SUPPORTIVE PLANNING TOOLKIT
PUGET SOUND REGIONAL COUNCIL

ECONOMIC BENEFITS

Transit investments create a wealth of both short- and long-term employment opportunities. Transit system construction provides substantial short-term job creation in a variety of associated industries, and after the systems are complete, a long-term source of high-quality jobs operating and maintaining the service and infrastructure. Transit also provides a means for employees to reach jobs, which is valuable both to those employees without access to a private vehicle or the ability or desire to drive, and to employers seeking to attract a talented workforce, which is aided by the provision of commuting options. Residential, commercial, and business real estate that is served by public transportation is valued more highly by the public than similar properties not as well-served by transit. Office space proximate to rapid transit also exhibits lower vacancy rates than units outside the walkshed of rapid transit stops and stations.

"Speaking from a corporate perspective, we couldn't provide mobility to our workforce without a robust transit system in Bellevue... Bellevue is going to continue to grow as a large urban center, and having reliable, efficient, high frequency transit service is going to be very important. Doing that in a way that is cost effective and provides for a variety of service across the region into Downtown Bellevue is going to be critical as we continue to address congestion, traffic issues, and provide a portfolio of different types of transportation alternatives for people."

JIM STANTON, SENIOR COMMUNITY AFFAIRS MANAGER, MICROSOFT CORPORATION

Supports Employment

- Nationally, public transportation is a $57 billion industry that in 2011 employed nearly 390,000 operating employees and over 10,000 capital employees (APTA 2013, 2014a).
- As shown in Table 1, King County Metro and Sound Transit cumulatively employed over 5,500 workers in RY 2012, of which over three-quarters were full-time employees and over 60% have jobs related to transit operations (NTD n.d.).
- Table 2 on page 8 indicates that in addition to operating and capital jobs at transit agencies, transit spending also supports many more employment opportunities. Nationally, in RY 2011, $17.1 billion of capital expenditures and $38.4 billion in operating expenditures supported nearly 2 million jobs, including over

950,000 direct jobs, nearly 250,000 indirect jobs, and over 780,000 induced jobs. This translates to about 24,000 jobs per $1 billion of capital spending and about 41,000 jobs per $1 billion of operating expenditures (APTA 2013, Weisbrod and Reno 2009).

- Some 314 jobs are created for every $10 million invested in transit capital funding, and more than 570 jobs are created for every $10 million in the short-term (Cambridge Systematics 1999).
- "Of the 350,000 people directly employed by public transportation systems, more than 50 percent are operators or conductors. In addition, 10,000 to 20,000 professionals work under contract to public transportation systems or are employed by companies and government offices that support these systems. Thousands of others are employed in related services (i.e. engineering, manufacturing, construction, retail, etc.)" (Surface Transportation Policy Partnership n.d.)

"Concur Technologies recently moved half of its employees to Downtown Bellevue due in part to better access to transit services."

CHRIS LOEFFLER, CORPORATE DEVELOPMENT SENIOR PROJECT MANAGER CONCUR TECHNOLOGIES

Table 1 Number of employees by category and transit mode for King County Metro and Sound Transit (Report Year 2012).

	Employee Category	King County Metro					Sound Transit				Total
		Bus	Streetcar	Trolleybus	Vanpool	All Modes	Commuter Bus	Light Rail	Streetcar	All Modes	
Full Time Employees	Total Operations	2,533	22	387	36	2,978	518	282	27	827	3,805
	Vehicle Operations	1,611	12	215	—	1,838	322	106	12	440	2,278
	Vehicle Maintenance	525	4	81	—	610	106	41	3	150	760
	Non-Vehicle Maintenance	230	3	67	1	301	34	93	5	131	432
	General Administration	168	3	24	35	230	56	42	7	105	335
	Total Capital Labor	76	1	14	1	92	12	469	3	483	575
	Total Full Time	**2,609**	**23**	**401**	**37**	**3,070**	**530**	**750**	**29**	**1,310**	**4,379**
Part-Time Employees	Total Operations	940	—	125	2	1,068	64	—	—	64	1,131
	Vehicle Operations	919	—	122	—	1,041	62	—	—	62	1,104
	Vehicle Maintenance	—	—	—	—	—	—	—	—	—	—
	Non-Vehicle Maintenance	4	—	1	—	5	—	—	—	—	5
	General Administration	17	—	2	2	22	1	—	—	1	23
	Total Capital Labor	1	—	0	—	2	—	—	—	—	2
	Total Part-Time	**942**	**—**	**126**	**2**	**1,069**	**64**	**—**	**—**	**64**	**1,133**
	Total Employees (Full Time and Part-Time)	**3,551**	**23**	**526**	**39**	**4,139**	**594**	**750**	**29**	**1,373**	**5,512**

Source: National Transit Database data for RY 2012.

Increases Customer Base for Sales

- Capital and operations expenditures on transit have a positive impact on the communities that are served. As shown in Table 3, every $1 billion in transit average spending results in the creation of 35,600 jobs, $3.5 billion in business sales, $1.8 billion in GDP, $1.6 billion in labor income, or $472 million in tax revenue. These represent five separate ways of measuring the same (or portions of the same) overall impact and therefore cannot be added together (APTA n.d., Weisbrod and Reno 2009).
- As shown in Figure 3, businesses realize a gain in sales three times the public sector investment in transit capital, such that a $10 million investment results in a $30 million gain in local sales. Transit operations spending provides an even higher rate of return to area businesses, with a $32 million increase in sales for each $10 million in transit operations spending (Cambridge Systematics 2009).
- Business sales and personal income are positively impacted by transit investment, growing rapidly over time, and increasing the

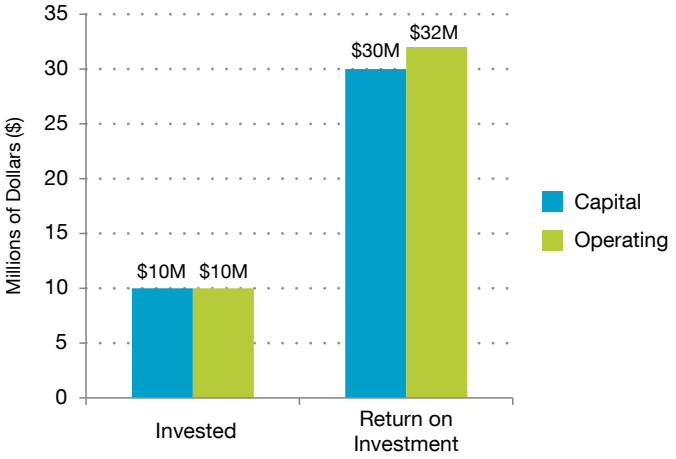

Figure 3 Adapted from "Public Transportation: Benefits for the 21st Century" (APTA 2007).

Table 2 Number of jobs by category supported by transit expenditures nationally (Report Year 2011).

Category of Jobs	Total Transit Expenditures (Billions of Dollars)		Jobs Supported per $1 Billion Dollars		Total Jobs Supported by RY 2011 Transit Spending		
	Capital	Operating	Capital	Operating	Capital	Operating	Total
Direct Jobs	—	—	8,202	21,227	139,902	814,312	954,215
Indirect Jobs	—	—	7,875	2,934	134,325	112,554	246,879
Induced Jobs	—	—	7,711	16,979	131,527	651,350	782,877
Total Spending/Jobs	17.1	38.4	23,788	41,140	405,754	1,578,217	1,983,971

Adapted from "2013 Public Transportation Fact Book" (APTA 2013). Data from Weisbrod and Reno 2009.

overall efficiency of the economy. "A sustained program of transit capital investment will generate an increase of $2 million in business output and $0.8 million in personal income for each $10 million in the short run (during year one). In the long term (during year 20), these benefits increase to $31 million and $18 million for business output and personal income respectively" (Cambridge Systematics 2009: E-1–E-2).

Improves Property Values

- In Vancouver, BC, office building occupants not only derive direct benefits from being close to rapid transit, but the office buildings located near light rail stations also achieve higher rents than other locations. Tenants throughout suburban Vancouver are willing to pay a premium for daily access to public transportation (Jones Lang LaSalle 2011).
- "Large tenants [are] gravitating to transit oriented buildings" and the "[o]verwhelming

Table 3 Short-term economic impact per billion dollars of national investment in transit.

Economic Impact	Impact per $1 Billion of Transit Capital Spending	Impact per $1 Billion of Transit Operations Spending	Impact per $1 Billion of Transit Average Spending
Jobs – Employment in the Thousands of Jobs	23.8	41.1	35.6
Output – Business Sales in Billions of Dollars	$3.00	$3.80	$3.50
Gross Domestic Product (GDP) – Value Added in Billions of Dollars	$1.50	$2.00	$1.80
Labor Income in Billions of Dollars	$1.10	$1.80	$1.60
Tax Revenue in Millions of Dollars (Rounded)	$350	$530	$472

Adapted from "2013 Public Transportation Fact Book" (APTA 2013). Data from Weisbrod and Reno 2009.

"There's extreme competition for talent, so it's recruitment, retention... What you've got in downtown Bellevue is a critical mass. You've got housing, you've got restaurants, you've got retail, and you've got transit."
(Seattle Times 2013)

STEVE SCHWARTZ, MANAGING DIRECTOR
JONES LANG LASALLE

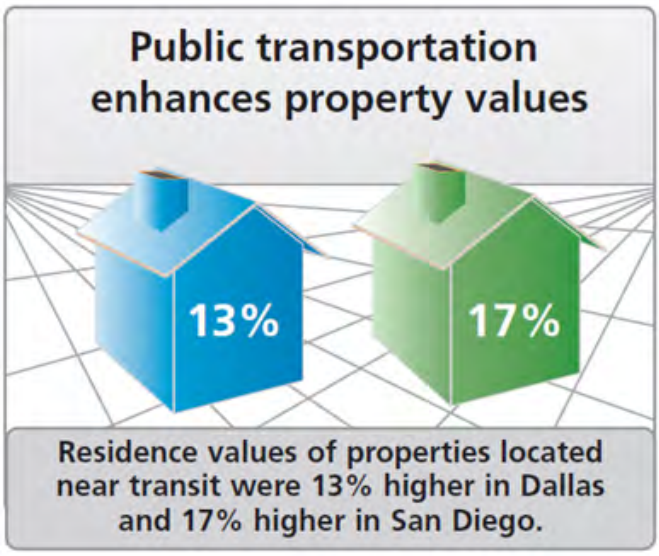

Figure 4 Source: "Public Transportation: Benefits for the 21st Century" (APTA 2007).

majority of suburban office developments are located within 500 meters of a rapid transit station" (Jones Lang LaSalle 2013: 1).

- Between 1997 and 2001, commercial properties located near Dallas Area Rapid Transit (DART) stations increased in value by 24.7 percent, while properties not served increased in value by only 11.5 percent (Weinstein and Clower 2005).
- Values of residential properties near DART stations rose 32.1 percent compared with a 19.5 percent increase for properties not served by rail stations. The total value of new investment completed, ongoing, or planned from 1999 through 2005 was more than $3.3 billion (Weinstein and Clower 2005).
- Although large-scale transit-oriented development (TOD) is generally less common around standard local bus services, in markets where buses carry a significant share of travelers, "opportunities for higher-density development around bus routes abound," and the improvements in service frequency, speed, passenger amenities, and station permanence offered by express and bus rapid transit (BRT) services "gives developers a more substantial presence, which can support adjacent development" (Dunphy, Myerson, and Pawlukiewicz 2003: vii). "Enlightened zoning, which allows higher densities and requires less parking along well-served bus corridors, will create opportunities for development that supports transit, even if developers do not consider such development 'transit oriented'" (Dunphy, Myerson, and Pawlukiewicz 2003: 19).

Stimulates Downtown Vitality

- Vacancy of office space with rapid transit access is well below half the rate of the rest of the market in Vancouver, BC. “The direct vacancy rate for buildings within 0.5 km of a rapid transit station is 4.8% compared to the 12.3% direct vacancy rate of the rest of the market, and the average asking net rental rate is approximately 8% higher” (Jones Lang LaSalle 2011: 2).
- “[T]he direct vacancy rate of office space located just outside the Index’s radius, 0.5 km – 1 km from a light rail station, is 315% higher than the Index itself at 15.1% and the average net asking rates are 12.9% lower. This major discrepancy over a relatively short distance illustrates the value that tenants place on immediate access to rapid transit” (Jones Lang LaSalle 2011: 2).
- “Surrey’s vacancy rate for office space without rapid transit access is 25%, yet buildings near the SkyTrain are a hot commodity with a direct vacancy rate of just 0.4%” (Jones Lang LaSalle 2011: 5).

“Bus travel to and from downtown Bellevue from employment centers to homes, and parts in between, helps employees, residents, and business patrons move Bellevue’s economy forward.”

BETTY NOKES, PRESIDENT AND CEO
BELLEVUE CHAMBER OF COMMERCE

"We need a transit system to serve Downtown Bellevue, otherwise it won't grow."

VIC BISHOP, BELLEVUE TRANSPORTATION COMMISSION, TRANSIT MASTER PLAN FORUM

ENVIRONMENTAL BENEFITS

Congestion wastes a significant amount of time, fuel, and money, and congestion costs are increasing. In 2006, the United States was responsible for 24 percent of global oil consumption, and the average American consumed 25.2 barrels of oil that year (Baxandall, Dutzik, and Hoen 2008). Increased transit use has positive environmental implications, directly correlating to fewer cars making daily commutes, thereby reducing the use of and fuel, greenhouse gas emissions, smog, and the associated impacts on public health. When coordinated with transit-supportive land use planning, transit helps to focus and intensify development, thereby reducing the amount of land consumed.

Emission Mitigation

- Public transportation saves 37 million metric tons of CO2 annually. This is equivalent to the emissions of 4.9 million households—roughly the same as if New York City, Washington, DC, Atlanta, Denver, and Los Angeles all stopping using electricity (APTA 2009).
- "People living…within one-quarter mile of rail and one-tenth of a mile from a bus stop drive 4,400 fewer miles annually than persons in households with no access to public transit" (APTA 2010).
- "Planting new forest is one way to remove CO2 from the atmosphere…To match the total effect of [providing] public transportation, the U.S. would have to plant 23.2 million acres of new forest (annually)" (Bailey et al. 2008).

Saves Energy

- If public transportation service did not exist and all riders instead traveled in private vehicles in 2011, 498 urban areas across the United States would have suffered an additional 865 million hours of delay and consumed 450 million more gallons of fuel. The monetized value of this additional delay and fuel consumption was estimated by the Texas Transportation Institute to be about $20.8 billion, or 15 percent more than the congestion costs realized with public transportation systems in place (Schrank, Eisele, and Lomax 2012).

Reduces Land Consumption

- "Businesses in transit-intensive areas save on land required for parking and its associated costs. Where public transportation is a factor, the number of parking spaces required for offices and retail business can be reduced by 30% and 50%, respectively – saving between $2,000 and $20,000 per parking space" (FAST n.d.).
- In 2000, the City of Seattle conducted a parking study in 26 neighborhoods and found that the majority of neighborhoods used between 40 to 70 percent of their parking supply on average. Only a few areas (four of the 26) used their parking to "full occupancy" standards of 80 to 85 percent (DeWitt et al. 2003).
- "Sprawling development generates less in tax revenue than the costs it incurs. Similarly, it is cheaper to provide public infrastructure and services to smart growth. However, for various cultural and economic reasons, the public perception of public transit is as a subsidy whereas spending on automobile infrastructure is viewed an investment" (Trigg 2009).

"An important benefit of transit is that whenever a transit trip replaces a single auto trip it eases the congestion that hurts all businesses and all commuters. Bellevue could not reach its projected growth without transit. We can't just build roads to meet our growth."

TOM TANAKA, BELLEVUE TRANSPORTATION COMMISSION, TRANSIT MASTER PLAN FORUM

Reduces Foreign Oil Dependency

- Public transportation's overall effects save the United States 4.2 billion gallons of gasoline annually (APTA 2014a).
- In 2009, 3.9 billion gallons of fuel were wasted—the equivalent to 78 super tankers (Metropolitan King County Council 2011).
- – Public transportation in the U.S. saves the equivalent of 900,000 automobile fill-ups each day (APTA 2010).
- "For every 10,000 solo commuters who leave their cars at home and commute on an existing public transportation service for one year, the nation reduces fuel consumption by 2.7 million gallons" (FAST n.d.).

Figure 5 Energy and Emission Benefits from Public Transportation. Source: "Public Transportation: Benefits for the 21st Century" (APTA 2007).

Changes in Fuel Use Due To Public Transportation	Total Energy Savings (Billion Gallons of Gasoline Equivalent)	Carbon Dioxide Emission Reductions (Million Metric Tons)
Reduction Directly from Riding Public Transportation as Replacement of Private Vehicle Miles, Gross	1.80	16.2
(Less Fuel Currently Used by Public Transportation)	(1.38)	(12.3)
Savings to Private Vehicle Drivers Because of Congestion Reduction Due to Public Transportation	0.34	3.0
Secondary Reduction Due to Reduced Travel Distance Related to Public Transportation Related Location Decisions	3.40	30.1
Total Savings Due to Public Transportation	**4.16**	**37.0**

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COMMUNITY BENEFITS

Public transportation stops and station areas are natural focal points for economic and social activities, helping to create strong neighborhood centers that are economically stable, safe, and productive. The ability to travel conveniently in an area without a car is an important component of a community's livability (Mackie 2008). Communities that invest in public transit choices also enhance quality of life by helping to ensure that everyone breathes cleaner air (Sierra Club 2001).

"Nearly a third of our students ride transit as their primary mode of transportation, which alleviates congestion in our neighborhood and throughout Bellevue."

RAY WHITE, VP ADMINISTRATIVE SERVICES
BELLEVUE COLLEGE

Travel Congestion Mitigation

- "Metro Transit provides alternatives to congestion and reduces congestion through its ridership. If public transportation was not available, travelers in the Puget Sound region would experience an additional 14.1 million hours of delay – nearly 6 hours of additional delay per peak auto-commuter" (Metropolitan King County Council 2011).
- As noted in the Environmental Benefits section, 498 urban areas across the United States would have suffered an additional 865 million hours of delay in 2011 if all public transportation users instead drove in private vehicles (Schrank, Eisele, and Lomax 2012).
- Public transportation in the United States saves the equivalent of 420,000 service station tanker trucks contributing to congestion annually (Bailey, Mokhtarian, and Little 2007).

Improves Roadway Efficiency

- 17 percent of commuters trips into Downtown Bellevue during peak times are on transit – freeing capacity for freight and other vehicles
- Without transportation choices such as walking, bicycling and transit, there would be

62,413 more cars more cars on the road in New Orleans, 167,061 more cars on the road in San Diego, and 2,610,280 more cars on the road in New York City (Sierra Club 2001).

- "[T]raffic congestion is a non-linear function, meaning that a small reduction in urban-peak traffic volume can cause a proportionally larger reduction in delay. For example, a 5% reduction in traffic volumes on a congested highway (for example, from 2,000 to 1,900 vehicles per hour) may cause a 10-30% increase in average vehicle speeds (for example, increasing traffic speeds from 35 to 45 miles per hour). As a result, even relatively small changes in traffic volume or capacity on congested roads can provide relatively large reductions in traffic delay" (VTPI 2013).
- "In 2012, there were nearly 70,600 daily transit riders during the peak commute periods, on the high-demand corridors in the central Puget Sound area. This took more than 43,800 cars off the road, which in turn avoided approximately 674,700 pounds of CO2 emissions daily" (WSDOT 2013).

Provides Parking Solutions

- "At the University of Washington, in Seattle, biennial telephone surveys of faculty, staff, and students about their travel behaviors and attitudes show that the U-PASS program there helped reduce demand for parking facilities. The 12,000 current campus parking spaces are fewer than existed in 1983, despite the addition of 8,000 more people to the campus community since then. The University was also able to avoid building 3,600 new parking spaces, thus saving $100 million in construction costs" (Nuworsoo 2005).

Figure 6 Two hundred people traveling in 177 cars (top, middle) or three buses (bottom). (Source: I-Sustain 2010).

- "Brown, Hess, and Shoup estimate the total monthly cost (construction, interest payments, and operation) of a single debt-financed parking space in a 1,500-space parking structure at UCLA to be $223 per month in 2002, similar to the $227 per month per space of a new parking structure at the University of Colorado, Boulder. [...] In comparison, UCLA spent approximately $71,000 a month for the BruinGO pass program, which induced 1,000 drive-alone commuters to give up their parking spaces. At $71 per parking space per month, the cost of the pass to the University was only a third of the cost per parking space" (Nuworsoo 2005).

Community Enrichment

- "The 2004 American Community Survey found that consumers place a high value on urban amenities such as shorter commute time and neighborhood walkability: 60% of prospective homebuyers surveyed reported that they prefer a neighborhood that offered a shorter commute, sidewalks and amenities like local shops, restaurants, libraries, schools and public transport over a more automobile-dependent community with larger lots but longer commutes and poorer walking conditions" (Litman 2014).
- The 2004 ACS also revealed that "Americans place a high value on limiting their commute times and they are more likely to see improved public transportation and changing patterns of housing development as the solutions to longer commutes than increasing road capacities. This unambiguous finding suggests that, while public policies are going in one direction, public opinion is running down another path" (Belden Russonello and Stewart 2004).
- "Significant indirect productivity effects of transit service are found. For example, in the case of

central city employment density, estimated wage increases range between $1.5 million and $1.8 billion per metropolitan area yearly for a 10 per cent increase in transit seats or rail service miles per capita" (Chatman and Noland 2013).

– "Transit services could concentrate development near transit stops in employment centres, lowering the transactions costs associated with intermediate inputs (Scott, 1988) and causing information spillovers that happen when workers in innovation-based industries mix and mingle with each other (Arzaghi and Henderson, 2008)" (Chatman and Noland 2013).

INDIVIDUAL BENEFITS

Public transportation allows those living nearby to more easily travel to and from destinations that are important to them. Households with easy access to public transit are able to spend less on transportation and can thus afford to spend more on housing. But the benefits of living near transit can go beyond mere economics. Aside from lower transportation costs, the ability to travel within a large metropolitan area while avoiding traffic congestion is highly valued by some. Others are attracted to the commercial and entertainment options that often cluster around transit stations. And still others choose to live near transit in an effort to shrink their carbon footprint.

Saves Time & Money

- Nationally, the annual cost of congestion to the average commuter increased from $351 in 1982 to $808 in 2009 (Metropolitan King County Council 2011).
- In 2011, public transportation in the greater Seattle urban area reduced traffic delay due to congestion by about 16.5 million hours, valued by the researchers at 366.5 million (Schrank, Eisele, and Lomax 2012).
- Without public transportation, travel delays due to congestion—4.16 billion hours nationally, or an average of 36 hours per traveler in 2007—would have increased by 15 percent (APTA 2010).
- Based on the January 16, 2014 average national gasoline price ($3.30 per gallon) and the national unreserved parking rate ($166.26 per month), "individuals who ride public transportation instead of driving can save, on average, more than $829 this month, and $9,953 annually" (APTA 2014b). Among the twenty U.S. cities with the highest transit ridership, Seattle ranks sixth overall in savings realized by people using

a monthly transit pass instead of driving—$969 in savings each month, or $11,630 annually—based on local gas prices and unreserved parking rates (APTA 2014b).

- "In addition, transit availability can reduce the need for an additional car, a yearly expense of more than $9,000 in an average household budget" (Bailey 2007).
- "So where does the money saved on traveling fewer miles get spent? We don't know exactly, but we have some clues. National data show that there is an inverse relationship between household spending on transportation and housing: households that spend more on transportation spend less on housing, and vice versa. Shorter distances traveled means Portland residents have more money to spend on their homes. We also know that Portlanders spend more on some things — outdoor recreation and alcoholic beverages, for example. And, not incidentally, Portland has more restaurants per capita than any other large metropolitan area, save Seattle and San Francisco" (

Reduces Carbon Footprint

- "If an individual switches a 20-mile roundtrip commute to public transportation, his or her annual CO2 emissions will decrease by 4,800 pounds per year, equal to a 10 percent reduction in a two-car household's carbon footprint" (APTA 2010).
- Households near public transit drive an average of 4,400 fewer miles than households with no access to public transit. This equates to an individual household reduction of 223 gallons per year. (APTA 2014a)
- One person switching to public transit can

reduce daily carbon emissions by 20 pounds, or more than 4,800 pounds in a year (APTA 2014a).

- A single commuter switching his or her commute to public transportation can reduce a household's carbon emissions by 10% and up to 30% if he or she eliminates a second car. When compared to other household actions that limit CO2, taking public transportation can be 10 times greater in reducing this harmful greenhouse gas (APTA 2014a).

Empowers Individuals

- "Approximately 11 percent of public transportation users are en route to schools" (APTA 2010).
- "By 2025, an estimated 20 percent of the population—one in five persons—will be over age 65; providing mobility options is critical for older American and for those who care for them" (APTA 2010).
- "According to a national survey of individuals age 65 or older… more than four in five seniors believe public transportation is a better alternative to driving alone, especially at night, and 83 percent agree that public transit provides easy access to the things that older adults need in everyday life" (APTA 2010).
- "Low-income workers spend up to 36% of their household budget on transportation services, mostly to gain access to job sites" (Surface Transportation Policy Partnership n.d.).
- "Public transportation systems play a key role in moving former welfare recipients into the workforce as permanent wage earners. A 1999 APTA survey revealed that an estimated 94 percent of welfare recipients attempting to move into the workforce rely on public transportation" (Surface Transportation Policy Partnership n.d.).

"The dramatic increase in the senior population over the next two decades highlights the need for a transportation system where mobility choices and access to services are provided equally and affordably to all residents and are responsive to the needs of people for whom transit is a necessity, including seniors, people with disabilities, low-income populations, youth, people of color, people with limited proficiency in English and people without access to private vehicles. The transit system should ensure that all people have access to mobility options that allow them to move freely around the community, preserve dignity, maximize independence and provide access to the full range of activities that contribute to quality of life."

PAULA L. HOUSTON, M.H.A.
CHIEF EXECUTIVE OFFICER
SENIOR SERVICES

Improves Health & Safety

- In addition to reduced pollution, direct health benefits of public transportation include lower rates of respiratory and heart disease, and lower accident rates (National Safety Council 2006).
- A significant amount of time is spent driving; the average U.S. resident spends 443 hours in a car each year—the equivalent of 55 eight-hour work days. This represents time that could otherwise be spent in productive or leisure activity (Sierra Club n.d.).
- Public transportation fosters a more active lifestyle, encouraging people to walk and bike to transit stops. "Walking to and from public transportation can help physically inactive populations, especially low-income and minority groups, attain the recommended level of daily physical activity. Increased access to public transit may help promote and maintain active lifestyles" (Besser and Dannenberg 2005: 273).
- The median daily walking time of a transit user is 19 minutes, and 29 percent of all transit users meet or exceed the recommended minimum of 30 minutes of daily physical activity by walking to transit. (Besser and Dannenberg 2005).
- Public transportation is one of the safest modes of travel. Riding a transit bus is 91 times safer than car travel (Mackie 2008).

"Transit creates more active communities. People walk more (health benefits)... A good transportation system is fundamental to viability, the city will stagnate, and residents who want that will choose not to live here.

HAL FERRIS, BELLEVUE PLANNING COMMMISSION, TRANSIT MASTER PLAN FORUM

"Transit service offers people with special needs access to vital human services, health care, educational opportunities, employment, and a wide range of other activities that in many cases they would not be able to access without transit. Transit therefore plays an important role in reducing social and economic inequalities by enhancing mobility for people, regardless of age, race, income or disability. In particular, it helps to bridge the mobility divide currently existing for many low-income families, people with disabilities, or older adults who lack access to a vehicle."

LAUREN THOMAS, INTERIM CEO HOPELINK

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