Customer Based Ridesharing and Transit Interconnectivity Study

June 2018

Customer-Focused, Technology-Enabled Multi-Modalism

VOLUME 1: EXISTING CONDITIONS

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Customer-Based Ridesharing and Transit Interconnectivity Study: Existing Conditions Report

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1. INTRODUCTION

Through the late 1800s and early 1900s, a vibrant network of railroads, horse cars and trolley lines helped connect the small farming communities of the San Bernardino Valley. As new population centers arose and housing replaced agricultural land, however, these options faded and the automobile became the region's dominant form of transport. Fortunately, recent decades have witnessed a powerful reawakening of the valley's long-standing experience with and commitment to public transport.

Today, old rights-of-way and corridors are being repurposed to create new transport options for the people of the San Bernardino Valley. From Metrolink commuter rail service established in the 1990s to commencing San Bernardino County's first rapid transit bus corridor, Omnitrans sbX opening during 2014, the more recent explosion of new bicycle facilities, and expanding rideshare and vanpool programs give residents a variety of ways to move throughout the area. Taken together, these independent systems create a dynamic regional network that continues to evolve in support of alternative travel across and between Southern California communities.

Because alternative transportation is essential to the region's future and because existing systems represent an already significant public investment, it is vital to ensure that these systems function effectively as part of a comprehensive whole. ***Interconnectivity*** must be a guiding principle for strengthening relationships between systems to enhance seamless and efficient connectivity. Interconnectivity is served by advances in information technology, a new desire to walk and bike, more frequent buses and more frequent trains, and new rail services, including Metrolink service to downtown San Bernardino, the Gold Line extending farther east towards the Los Angeles/San Bernardino border and the developing Arrow light rail service to Redlands. New services coupled with technology advancements work together to support interconnectivity. These give San Bernardino Valley commuters and others multiple incentives for using alternatives to driving alone to get to work, school, health-related and recreation destinations.

In addition to bolstering interconnectivity, a critically important objective is the enhancement of the transportation ***customer experience*** and the creation of ***a customer-based viewpoint*** in planning and operating services. One dimension of that customer viewpoint is that the very proliferation of travel choices can seem overwhelming. Customers face a maze of options, often without a clear understanding of how to most effectively harness and use these systems. One result is that too many residents remain reluctant to use public transportation and the private automobile continues to be the primary mode of travel for most Southern Californians. But that trend is changing. More and more millennials are electing to forgo — or delay — automobile ownership and are relying on public transportation for some trip needs. At the same time, growing numbers of residents across all age groups are embracing non-motorized or alternative transportation for lifestyle, cultural and health reasons.

The challenge of this project, then, is to develop strategies for increasing the use of transportation options by making it easier, more convenient and ultimately, more seamless for area residents. This challenge has several multimodal dimensions:

- Helping customers understand what options exist and how best to use them.
  Because many transit and ridesharing services are provided by different operators — each with their own planning, marketing and communications strategies — users see a fragmented landscape when it comes to accessing information about the best way to get from point A to point B. "Best," of course, is a relative term defined by each user's priorities of cost or travel time or convenience. Fortunately, an increased number of emerging information portals, technology tools and applications help users more easily find and then use transportation that can work for them.

- Addressing barriers to access through targeted investments in facilities and amenities to increase the overall comfort and convenience of the user experience.
  Many of the physical barriers to access available transit involve first-/last-mile connections. When users do not feel safe walking to their local transit stop, leaving their private vehicle or bicycle in a Metrolink lot or even standing outside their employers' offices, missed opportunities for transit use quickly multiply. Bicycle facilities, lighting, seat and shelter amenities, and sidewalks can significantly boost perceptions of safety and thus help reduce systemic barriers to transit use.

- Increasing service levels and choices to fill gaps and address customer comfort and convenience.
  Specialized shuttles, or Call-and-Ride demand response, flex services serving large employer sites, can help meet first-/last-mile gaps. Contracts between transit and ride hailing services, such as Transportation Network Companies (TNCs) like Uber and Lyft, may provide an opportunity for subsidized trips home for short, transit-extending trips. In addition, establishing more high-speed, high-quality transit lines, such as Omnitrans' sbX, increasing frequency on existing high-frequency routes, or increasing transit's span-of-service can increase convenience in some corridors. Long-term planning to add train "slots" and increase train frequencies will meet other needs, which is particularly important for addressing the growing demand for off-peak, reverse-commute trips between the Inland Empire and Los Angeles and Orange counties.

To effectively capitalize on these opportunities, and to ensure the San Bernardino region realizes the greatest possible benefit from these regional transportation investments, it is important to first understand the systems currently in place. This document provides a compendium of existing conditions and public transportation systems operating within the 16 cities of the San Bernardino Valley. Together, these represent the foundation upon which strategies for improving shared and active transportation through stronger interconnectivity and improved customer experiences can be built.

Figure 1 presents the 15-city region of focus to this study. Table 1 summarizes the modes of public transportation or subsidized transportation, available to people living in the San Bernardino Valley and the websites by which people can access these. Subsequent chapters detail these available modes of public transportation, rideshare opportunities and the emerging ride-hailing services from TNCs, including selected amenities and infrastructure elements through which customers interact with these services.

Figure 1, Study Area

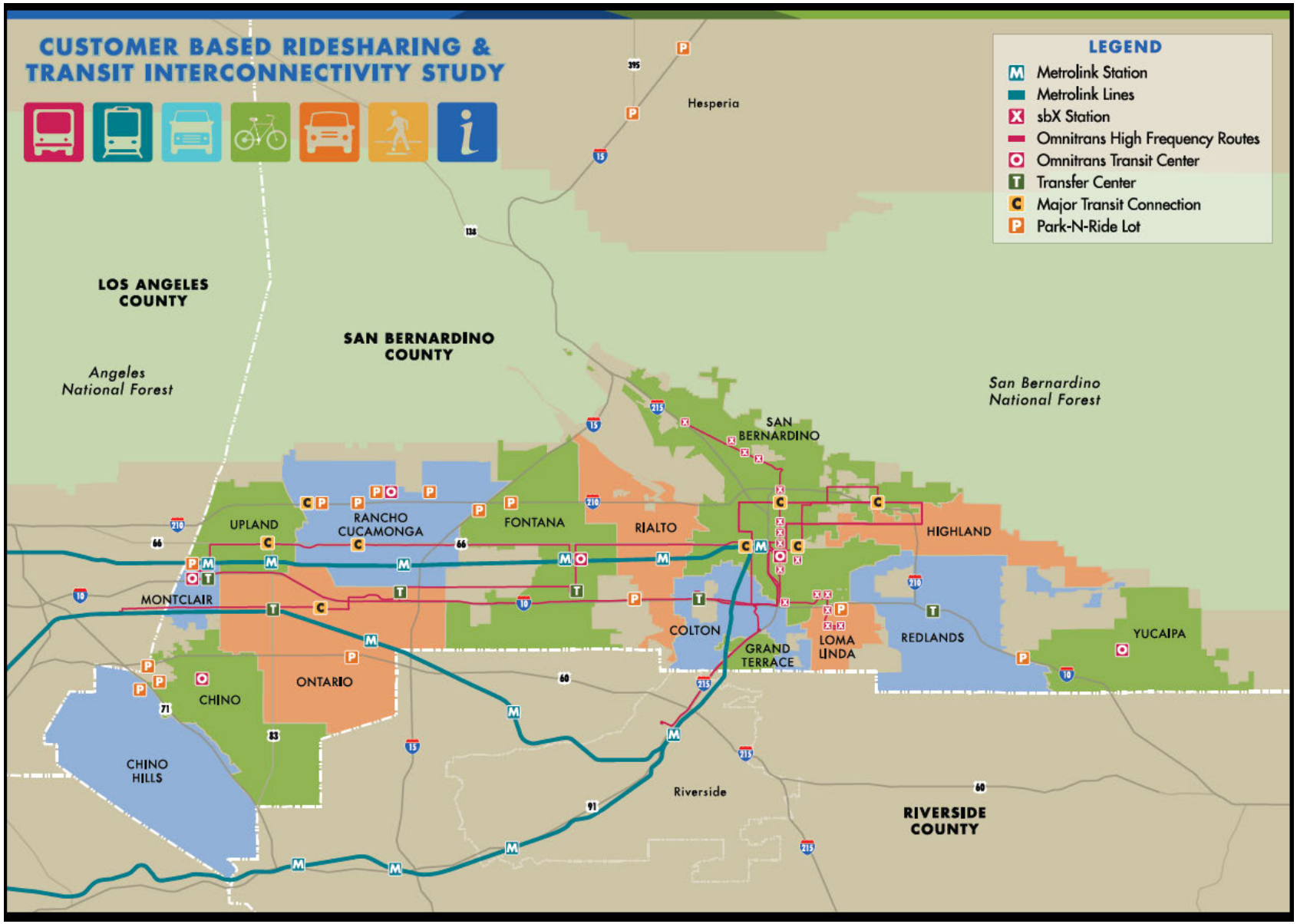


Table 1, Alternative Transportation in the San Bernardino Valley, Fall 2016

Transportation Mode/ Agency		Transportation Mode Connecting Within the San Bernardino Valley	Transportation Service Area(s)	1. Agency Website 2. Trip Planning Portal, if applicable
TRANSIT	**Omnitrans**	25 local fixed routes 2 express routes 1 Bus Rapid Transit (BRT) corridor 5 Community circulators 1 ADA complementary paratransit	San Bernardino Valley	1. www.omnitrans.org 2. www.omnitrans.org/getting-around/plan-a-trip/trip-planner
	Foothill Transit	4 local fixed routes 4 commuter express routes	Chino, Montclair	1. www.foothilltransit.org 2. trip planner on all web pages
	RTA	1 commuter express route	Montclair, Ontario	1. www.riversidetransit.com 2. www.riversidetransit.com/index php/riding-the-bus/plan-my-trip
	Mountain Transit	2 commuter routes	San Bernardino, Arrowhead, Big Bear	1. www.mountaintransit.org 2. www.mountaintransit.org
	VVTA	2 commuter routes	San Bernardino, Victorville, Barstow	1. www.vvta.org 2.www.realtime.vvta.org/InfoPoint
	Pass Transit	1 local fixed route 1 commuter express route		1. www.ci.beaumont.ca.us/index.aspx?NID=90 OR www.ci.banning.ca.us/351/Bus-Schedules 2. not available
Rail	**Metrolink**	3 commuter rail lines: **San Bernardino Line** 19 weekday round-trips, 10 Sat. round-trips, 7 Sunday round-trips **Riverside Line** 6 weekday round-trips **Inland Empire/Orange Co. Line** 4 weekday round-trips; 2 weekend round-trips	San Bernardino, Los Angeles, Orange Counties	1. www.metrolinktrains.com 2. www.metrolinktrains.com
Active Transport	**Bicycle**	77 miles Class I 276 miles Class II 150 miles Class III	Countywide (SCAG figures)	www.mapmyride.com/us/san-bernardino-ca/
Rideshare	**Carpool**	2 carpool incentive programs, Guaranteed Ride Home; confidential database tool by IE511	Countywide	www.ie511.org/rideshare/incentives
	CarShare	*Car2Go and ZipCar, among others, do not yet have a presence in the San Bernardino Valley.*		
	Vanpool – VVTA and SBCTA (new)	Organized vanpool programs	Countywide	www.vvta.org/vanpool
	Park-and-Ride Lots	21 agency owned park-and-ride lots listed by IE511; does not include informal park-and-ride lots	Countywide	www.ie511.org/rideshare/park-and-ride
Hail Ride Services	**Transportation Network Companies (TNCs)**	Uber and Lyft both have a growing presence in the San Bernardino Valley	Region-wide	www.uber.com/cities/inland-empire/ https://www.lyft.com/cities/inland-empire
	Taxis	Local taxi operations exist; the largest is Yellow and Bell Cab San Bernardino.	San Bernardino Valley	www.sbycab.com/

2. DESCRIPTION OF SAN BERNARDINO VALLEY

This chapter describes the residents' characteristics, how they travel to work, and current and projected major employment centers among the 15 cities and adjacent county areas that are of focus in this study.

2.1 Demographic Characteristics

The San Bernardino Valley sits at the southwest corner of San Bernardino County bordering Los Angeles, Orange and Riverside counties. Because of its proximity to one of the largest metropolitan areas on the West Coast, the San Bernardino Valley has a higher concentration of residents and employment opportunities when compared to other parts of San Bernardino County. The San Bernardino Valley, each community distinct in demographics, amenities provided and infrastructure, consists of 15 cities:

Chino	Highland	Redlands
Chino Hills	Loma Linda	Rialto
Colton	Montclair	San Bernardino
Fontana	Ontario	Upland
Grand Terrace	Rancho Cucamonga	Yucaipa

The I-15 interstate highway functions as a boundary that separates the West Valley and East Valley. Its significance is not only in terms of geography but also distinguishes the distribution of federal funds available. The West Valley sits in the *Los Angeles-Long Beach-Anaheim urbanized area* and the East Valley sits in the *Riverside-San Bernardino urbanized area*. The urban areas are significant in that the San Bernardino Valley receives federal formula funding specific to those urban areas.

This EXISTING CONDITIONS WORKING PAPER will reference, where applicable, the differences in the transportation facilities provided throughout the San Bernardino Valley. Each jurisdiction has funding priorities and works with regional transportation entities, such as SBCTA and Omnitrans, to construct and provide transportation amenities and facilities specific to the local jurisdictions' priorities. For example, many cities in the valley are members of Omnitrans' PASSENGER AMENITIES PROGRAM by which standardized shelters and amenities are installed on accessible bus stop pads throughout a city. However, some cities opt out of this program and build passenger shelters consistent with city-based design standards. These are among the subtle differences that can impact riders traveling through or around the region.

The 2010-2014 American Community Survey, 5-Year Estimates (ACS) reports the total population of the San Bernardino Valley at just over 1.5 million people, representing 73 percent of the county's total population (Table 2). The split between male and female residents is close to even, with more than half of the population between the ages of 18 to 54. The working population begins at age 16 and consists of 40 percent of the total valley population of almost 610,000 persons, 40.3 percent of the overall population.

Table 2, Population Characteristics of San Bernardino Valley Residents

Population	San Bernardino Valley	% of Total Population	State of California	% of State Population
Total Population	**1,514,667**	**100%**	**38,066,920**	**100%**
Male	751,519	49.6%	18,911,519	49.7%
Female	763,148	50.4%	19,155,401	50.3%
By Age				
Under 5 years	110,999	7.3%	2,512,417	6.6%
5 to 14 years	236,184	15.6%	5,100,967	13.4%
15 to 17 years	77,589	5.1%	1,598,811	4.2%
18 to 54 years	808,684	53.4%	25,542,903	67.1%
55 to 64 years	150,265	9.9%	4,301,562	11.3%
65 and over	132,499	8.7%	4,606,097	12.1%
Workers age 16 and over	609,892	40.3%	16,529,777	43.4%
2010 – 2014 American Community Survey 5-Year Estimates, Table S101				

The San Bernardino Valley is home to almost 429,000 households of varying size and characteristics (Table 3). Income levels of these households show a wide distribution across income levels with 57 percent of households earning more than $50,000 per year and only slightly below the statewide proportion of 58 percent. For 2016, the federal poverty level ranges between $11,880 and $40,890, depending on the number of persons in the household. According to ACS data, 11 percent, or close to 50,000, San Bernardino Valley households are living in poverty.

Table 3, Income Characteristics of San Bernardino Valley Households

Income Category	San Bernardino Valley # of Households	San Bernardino Valley % of Households	State of California # of Households	State of California % of Households
Total Households	**428,914**	**100%**	**12,617,280**	**100%**
Household Income				
Less than $10,000	25,657	6.0%	731,802	5.8%
$10,000 to $14,999	20,273	4.7%	643,481	5.1%
$15,000 to $24,999	41,077	9.6%	1,198,642	9.5%
$25,000 to $34,999	39,823	9.3%	1,135,555	9.0%
$35,000 to $49,999	57,679	13.4%	1,526,691	12.1%
$50,000 to $74,999	81,761	19.1%	2,107,086	16.7%
$75,000 to $99,999	56,971	13.3%	1,539,308	12.2%
$100,000 or more	105,673	24.6%	3,709,480	29.4%
Households earning $50,000 and up	**244,405**	**56.9%**	7,355,874	58.2%
2010 – 2014 American Community Survey 5-Year Estimates, Table S1901				

Income is further examined in terms of individual workers, but only of those that work full-time and year-round (Table 4). Of these 421,666 estimated workers, one-third is earning between $15,000 and $35,000 per year and another one-third are earning between $35,000 and $65,000. Overall, 59 percent of San Bernardino Valley workers earn less than $50,000 per year compared to only 52 percent of all California

workers. A smaller proportion of workers have earnings of greater than $50,000 annually, 41 percent in this region versus 48 percent statewide. The largest difference is among workers with the highest incomes above $100,000 per year.

Table 4, Workers' Income Characteristics

Earnings Category	San Bernardino Valley # of Workers	San Bernardino Valley % of Workers	State of California # of Workers	State of California % of Workers
Workers 16 and Over *	**421,666**	**100%**	**11,338,330**	**100%**
Annual Earnings				
$1 to $9,999 or loss	8,383	2.0%	226,767	2.0%
$10,000 to $14,999	18,357	4.4%	453,533	4.0%
$15,000 to $24,999	67,828	16.1%	1,598,705	14.1%
$25,000 to $34,999	69,550	16.5%	1,621,381	14.3%
$35,000 to $49,999	82,925	19.7%	1,972,869	17.4%
$50,000 to $64,999	59,040	14.0%	1,542,013	13.6%
$65,000 to $74,999	26,397	6.3%	725,653	6.4%
$75,000 to $99,999	46,548	11.0%	1,269,893	11.2%
$100,000 or more	42,425	10.1%	1,916,178	16.9%
Workers earning less than $50,000	**247,043**	**58.6%**	5,873,255	**51.8%**
Workers earning $50,000 or more	**174,410**	**41.4%**	5,453,737	**48.1%**

2010 – 2014 Survey 5-Year Estimates, Table S2001
* Number of workers that work for full-time, year-round.

Modes of travel to work are important to this study (Table 5). An analysis of work travel characteristics in Table 5 shows that 92 percent of commuters travel to and from their place of employment by car, truck or van. Among these commuters, almost 85 percent of this group are driving alone and represent 78 percent of all workers. This highlights the scale of the overall market opportunity to expand rideshare programs and public transit options.

More than 84,000 workers, or 13.8 percent of workers in the San Bernardino Valley, carpool to work, which is slightly higher than the percentage of workers in the state that carpool. This is an encouraging statistic and one that is important to leverage going forward.

For public transportation use, only 1.9 percent of workers in the San Bernardino Valley commute on transit, which is significantly lower than the 5.2 percent of workers in the state that use public transportation. Walking and biking to work is much lower in the San Bernardino Valley, where only 0.4 percent of workers bike to work and 1.5 percent walk to work. Again, this is much lower than the 1.1 percent and 2.7 percent that bike or walk to work throughout the state. San Bernardino Valley commuters are more likely to drive alone or carpool and less likely to use public transit or alternative modes of commuting than the rest of the state.

Table 5, Commuting Characteristics of Workers in the San Bernardino Valley

Means of Travel	San Bernardino Valley # of Workers	San Bernardino Valley % of Workers	State of California # of Workers	State of California # of Workers
Total workers age 16 and over	**609,892**	**100%**	**16,529,777**	**100%**
Traveled by				
Car, truck or van	559,565	91.7%	13,934,602	84.3%
Drove alone	**475,513**	**78.0%**	12,099,797	**73.2%**
Carpooled	**84,052**	**13.8%**	1,834,805	**11.1%**
In 2-person carpool	63,339	10.4%	1,371,971	8.3%
In 3-person carpool	12,101	2.0%	264,476	1.6%
In 4-or-more person carpool	8,353	1.4%	181,828	1.1%
Public transportation (excl. taxicab)	**11,710**	**1.9%**	859,548	**5.2%**
Walked	9,118	1.5%	446,304	2.7%
Bicycled	**2,656**	**0.4%**	181,828	**1.1%**
Taxicab, motorcycle or other	5,050	0.8%	214,887	1.3%
Worked at home	21,793	3.6%	876,078	5.3%
2010 – 2014 American Community Survey 5-Year Estimates, S0801				

Travel time for commuters is also of interest (Table 6). For San Bernardino Valley commuters, overall it is largely comparable to state averages with the majority, or 73 percent, of workers' commute trips being completed in less than 35 minutes. A significant portion (53 percent) of San Bernardino Valley work trips are completed in less than 25 minutes and almost one-third overall last between 15 and 25 minutes. Of long commutes, 14.1% of Valley workers report a commute of more than one hour, contrasted with just 10.4 percent statewide. For the San Bernardino Valley, this represents almost 83,000 workers.

Table 6, Travel Time to Work for Commuters in the San Bernardino Valley

Commute Time in Minutes	San Bernardino Valley # of Workers	San Bernardino Valley % of Workers	State of California # of Workers	State of California % of Workers
Workers 16 years and older* Travel time to work	**588,026**	**100%**	**15,658,667**	**100%**
Less than 5 minutes	10,050	1.7%	328,619	2.1%
5 to 9 minutes	46,182	7.9%	1,316,928	8.4%
10 to 14 minutes	74,340	12.6%	2,096,667	13.4%
15 to 19 minutes	90,128	15.3%	2,411,402	15.4%
20 to 24 minutes	89,711	15.3%	2,307,732	14.7%
25 to 29 minutes	34,283	5.8%	903,432	5.8%
30 to 34 minutes	82,763	14.1%	2,345,397	15.0%
35 to 39 minutes	13,403	2.3%	398,972	2.5%
40 to 44 minutes	20,183	3.4%	635,028	4.1%
45 to 59 minutes	44,176	7.5%	1,280,313	8.2%
60 to 89 minutes	50,763	8.6%	1,128,804	7.2%
90 or more minutes	32,044	5.4%	505,373	3.2%
Total workers ages 16 and older who did not work at home; 2010 – 2014 American Community Survey 5-Year Estimates, B08012				

2.2 Major Employment Centers

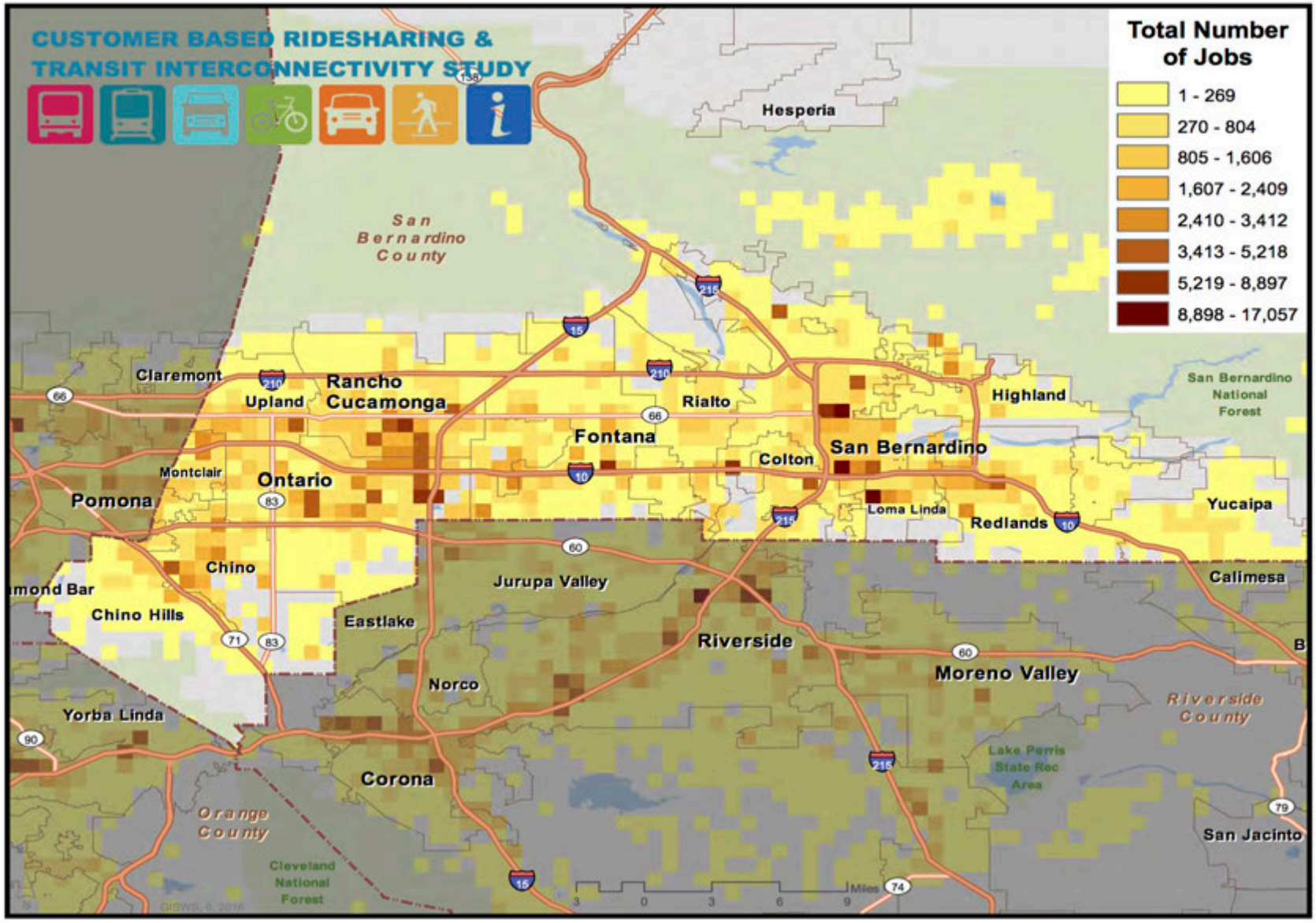
A number of major employment locations exist within the San Bernardino Valley, as depicted in Figure 2 showing quarter-mile square areas. These high-density employment areas of up to 17,000 employees and greater than 5,000 employees include downtown San Bernardino, along Hospitality Lane in San Bernardino and the Loma Linda Veterans Administration/Loma Linda University Medical Center complexes. Along the I-10 corridor, employment at the Arrowhead Medical Center in Colton and Kaiser Permanente in Fontana are also reflected in very high job densities.

In the West Valley, high employment locations include the distribution, logistics and light manufacturing centers in areas east of the Ontario airport and along the I-15 corridor, as well as within Ontario and west of the airport. North of I-10, in both Ontario and Rancho Cucamonga, the considerable retail employment of Ontario Mills and Victoria Gardens are important job generator locations, as well as a variety of white-collar jobs in businesses and companies in that same area.

According to data obtained from SBCTA's network of Employee Transportation Coordinators (ETCs) and compared with available Chamber of Commerce information, employers with 200 employees or more are identified in Table 7. This encompasses a number of industries, including government, medical, retail and distribution centers, among others.

Among the region's industries identified, that of hospital and medical facilities account for most of the reporting agencies. These are followed by retail and city government. Of the industries presented, people working for the county account for the highest percentage of employees within all industries. It should be noted that employers can have several worksites and may not all be concentrated in a specific geographic area.

Figure 2, Job Density in the San Bernardino Valley



Source: 2010 – 2014 American Community Survey, 5-year estimate

Table 7, Major Employers in the San Bernardino Valley

Employer Name	Employer City	Industry	Number of Employees
COUNTY OF SAN BERNARDINO	SAN BERNARDINO	Government	20,500
ONTARIO INTERNATIONAL AIRPORT	ONTARIO	Air Transport	7,510
AMAZON FULFILLMENT CENTER	SAN BERNARDINO	Distribution Center	4,161
LOMA LINDA UNIVERSITY HEALTH (LLUH)	LOMA LINDA	College/University	3,906
SAN MANUEL BAND OF MISSION INDIANS	HIGHLAND	Government	3,200
FONTANA UNITED SCHOOL DISTRICT	FONTANA	School District	3,953
CHAFFEY JOINT UNION HIGH SCHOOL DISTRICT (CJUHSD)	ONTARIO	School District	2,500
PATTON STATE HOSPITAL	PATTON	Hospital/Medical	2,500
VA LOMA LINDA HEALTHCARE SYSTEM (HCS)	LOMA LINDA	Hospital/Medical	2,402
CALIFORNIA STATE UNIVERSITY (CSUSB)	SAN BERNARDINO	College/University	2,165
ESRI	REDLANDS	Other	1,900
CALIFORNIA INSTITUTION FOR MEN (CIM)	CHINO	State Government	1,700
STATER BROS MARKETS	SAN BERNARDINO	Grocery	1,700
REDLANDS COMMUNITY HOSPITAL	REDLANDS	Hospital/Medical	1,600
ASHLEY FURNITURE	COLTON	Retail	1,429
LINEAGE LOGISTICS	COLTON	Other	1,283
EPIC MANAGEMENT	REDLANDS	Consultant	1,246
WELLS FARGO HOME MORTGAGE	SAN BERNARDINO	Banking	1,200
CITY OF ONTARIO	ONTARIO	Government	1,100
CITY OF SAN BERNARDINO	SAN BERNARDINO	Government	1,092
SUPERIOR COURT OF CALIFORNIA - COUNTY OF SAN BERNARDINO	SAN BERNARDINO	Government	885
INLAND EMPIRE HEALTH PLAN (IEHP)	RANCHO CUCAMONGA	Hospital/Medical	850
UNIVERSITY ENTERPRISES CORP OF CSUSB	SAN BERNARDINO	Education	814
NFI INDUSTRIES (CHINO)	CHINO	Distribution Center	800
MISSION FOODS	RANCHO CUCAMONGA	Grocery	750
COUNTY OF SAN BERNARDINO FIRE DEPARTMENT	SAN BERNARDINO	Government	700
MCLANE SOUTHERN CALIFORNIA	SAN BERNARDINO	Grocery	700
CALTRANS DISTRICT 8	SAN BERNARDINO	State Government	689
KOHL'S	SAN BERNARDINO	Retail	650
CITY OF FONTANA	FONTANA	Government	620
UNIVERSITY OF REDLANDS	REDLANDS	College/University	620
AMAZON FULFILLMENT CENTER	REDLANDS	Distribution Center	600
OMNITRANS	SAN BERNARDINO	TMA/TMO	593
YRC FREIGHT	BLOOMINGTON	Other	545
CITY OF RIALTO	RIALTO	Government	530
INLAND REGIONAL CENTER	SAN BERNARDINO	Non Profit	530
CITY OF RANCHO CUCAMONGA	RANCHO CUCAMONGA	Government	500
CHINO VALLEY MEDICAL CENTER	CHINO	Hospital/Medical	494
CITY OF REDLANDS	REDLANDS	Government	490
MONTCLAIR HOSPITAL MEDICAL CENTER	MONTCLAIR	Hospital/Medical	469
SOUTHERN CALIFORNIA GAS (SO CAL GAS)	REDLANDS	Public Utility	446
NAMM CALIFORNIA	ONTARIO	Hospital/Medical	396
CITY OF UPLAND	UPLAND	Government	390
LA-Z-BOY WEST	REDLANDS	Retail	375

Table 7, Major Employers in the San Bernardino Valley, continued

Employer Name	Employer City	Industry	Number of Employees
CITIZENS BUSINESS BANK ARENA	ONTARIO	Special Event Center	350
CITY OF MONTCLAIR	MONTCLAIR	Government	350
CONVERSE DISTRIBUTION CENTER	ONTARIO	Distribution Center	350
THE SAFARILAND GROUP	ONTARIO	Sales and Service	345
WALMART 01914	HIGHLAND	Retail	330
WALMART 01922	RANCHO CUCAMONGA	Retail	320
INLAND EMPIRE UTILITIES AGENCY	RANCHO CUCAMONGA	Public Utility	300
MISSION LINEN SUPPLY	CHINO	Sales and Service	300
WALMART 01692	COLTON	Retail	300
MANHEIM SOUTHERN CALIFORNIA	FONTANA	Sales and Service	295
WALMART 01862	RIALTO	Retail	290
WALMART 01992	UPLAND	Retail	285
BALLARD REHABILITATION HOSPITAL	SAN BERNARDINO	Hospital/Medical	260
CU DIRECT	ONTARIO	Banking	260
STAPLES DISTRIBUTION CENTER	RIALTO	Distribution Center	253
LAMPS PLUS	REDLANDS	Retail	230
FIRST AMERICAN TITLE	RANCHO CUCAMONGA	Accounting and Finance	225
AMERICAN SECURITY PRODUCTS	FONTANA	Sales and Service	200
STATE OF CALIFORNIA BOARD OF EQUALIZATION	RANCHO CUCAMONGA	State Government	200
STATE OF CALIFORNIA EDD DISABILITY INSURANCE	SAN BERNARDINO	State Government	200

2.3 Household and Employment Projections

Like many areas in Southern California, the San Bernardino Valley is expected to grow in the upcoming years. This growth in population, employment and households will have an impact on mobility throughout the valley as more people utilize the transportation network. Understanding growth patterns in the San Bernardino Valley can help understand how to improve the transportation network by developing short, mid- and long-term strategies that support travel to jobs, education and recreational opportunities throughout the region.

Figures 3 and 4 illustrate growth patterns in the San Bernardino Valley. These maps are created using household and employment projections first generated as part of SCAG's 2016 REGIONAL TRANSPORTATION PLAN/SUSTAINABLE COMMUNITIES STRATEGY in a coordinated effort between SCAG and SBCTA. SBCTA was able to map these projections from the most current employment and household projections. These projections illustrate housing and employment densities up to 2040.

West Valley densities are shown to increase in Figure 3. Considerable growth is anticipated in single-family and multi-family housing units as is seen in the Preserve and New Model Colony areas in the southern portion of the cities of Chino and Ontario, respectively next to the San Bernardino and Riverside County border. The area in North Fontana west of I-15 will also see a combination of single- and multi-family homes in the upcoming years. Finally, a high concentration of multi-family housing is also seen near the Metrolink stations in Montclair and Rancho Cucamonga. Building next to these stations will provide transportation alternatives for those that use Metrolink to travel to work or school.

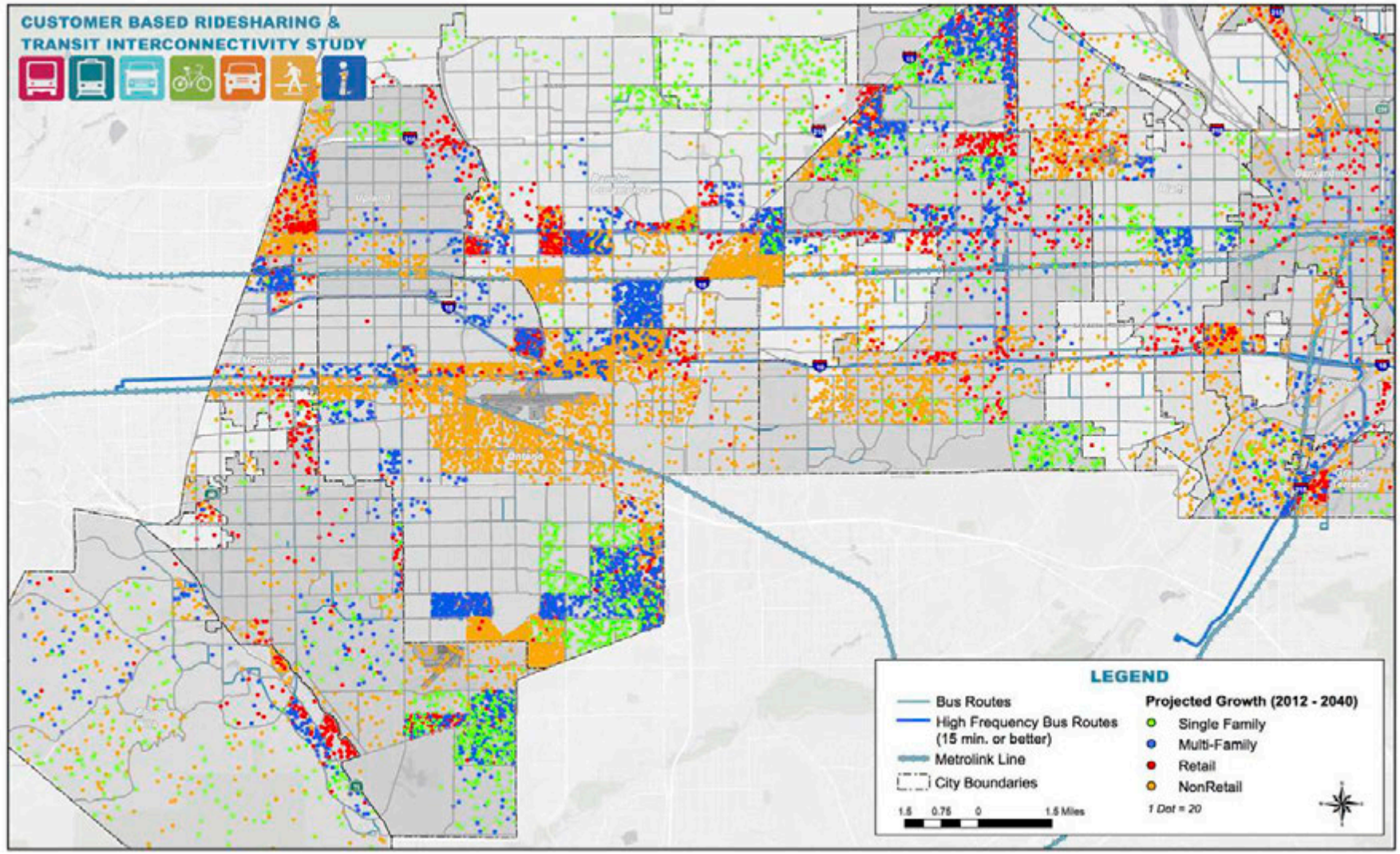
Nonretail employment opportunities in the West Valley are primarily focused around the Ontario International Airport with pockets in the unincorporated areas of the county between I-15 and the City of Fontana. Retail opportunities appear to be concentrated in the northern portion of Fontana and along Foothill Boulevard in the cities of Rancho Cucamonga and Upland. Omnitrans Route 66 currently provides 15-minute service along this stretch of Foothill Boulevard and if it continues to do so, can reap the benefits of higher ridership should these projected densities be realized.

East Valley growth is primarily focused around the area surrounding the San Bernardino International Airport (Figure 4). Omnitrans' Green Line operates in an area expected to see an increase in both retail and nonretail employment by 2040. A high concentration of retail opportunities is expected to occur in Redlands and the unincorporated area within the city boundaries.

Housing opportunities are spread throughout East Valley, many of which appear to be single-family homes. A concentration of single- and multi-family homes is projected to occur in the City of Rialto on Riverside Avenue between Historic Route 66 and Merrill Avenue. This area is served by Omnitrans Routes 14 and 22, as well as the Metrolink San Bernardino Line, providing multiple opportunities to access alternative transportation modes.

Finally, the eastern areas bordering Riverside County in the cities of Grand Terrace and Yucaipa will see a mix of uses ranging from housing to employment by 2040 (Figure 4). Inter-county connectivity will become an important factor to improving transportation options in these traditionally low-density areas.

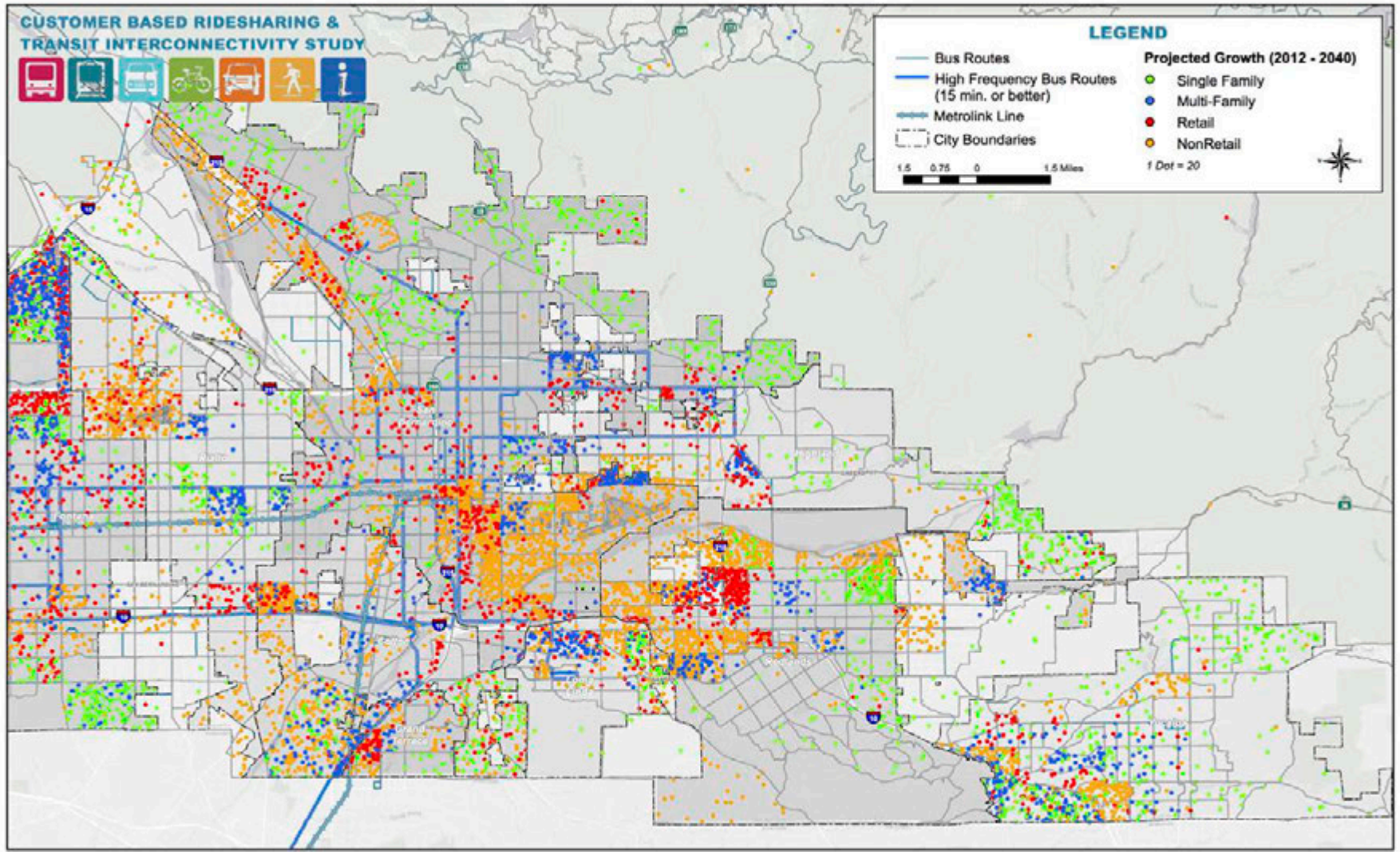
Figure 3, Projected Employment and Household Growth: West Valley



Source: SCAG 2016 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) as approved by local jurisdiction

Map courtesy of SBCTA

Figure 4, Projected Employment and Household Growth: East Valley



Source: SCAG 2016 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) as approved by local jurisdiction

Map courtesy of SBCTA

3. TRAVEL PATTERNS IN THE SAN BERNARDINO VALLEY

This chapter explores travel corridor information about the study area, available from several sets: 1) the U.S. Census Bureau American Community Survey, 2) South Coast Air Quality Management District annual survey process, 3) Omnitrans' origin and destination surveys, and 4) Metrolink's origin and destination survey.

3.1 Work Trip Origin and Destination — American Community Survey

The U.S. Census, American Community Survey (ACS) data provides information about the journey-to-work in relation to origin and destination areas. High-level patterns of travel within and into the region can be considered from these data. Understanding work trip demand is important to this project because these are recurring and generally fixed trip pairs of origins and destinations.

Figures 5 and 6 present "desire lines," the vectors for given trip origins and destinations available through the ACS. The desire lines were created using 3-year ACS data available from the Census. The work locations were taken at the Traffic Analysis Zone (TAZ) level where employment centers identified in these figures are located. The home locations were done at the city level so the desire lines are showing daily trips made from the Employment Center TAZ to the individual cities.

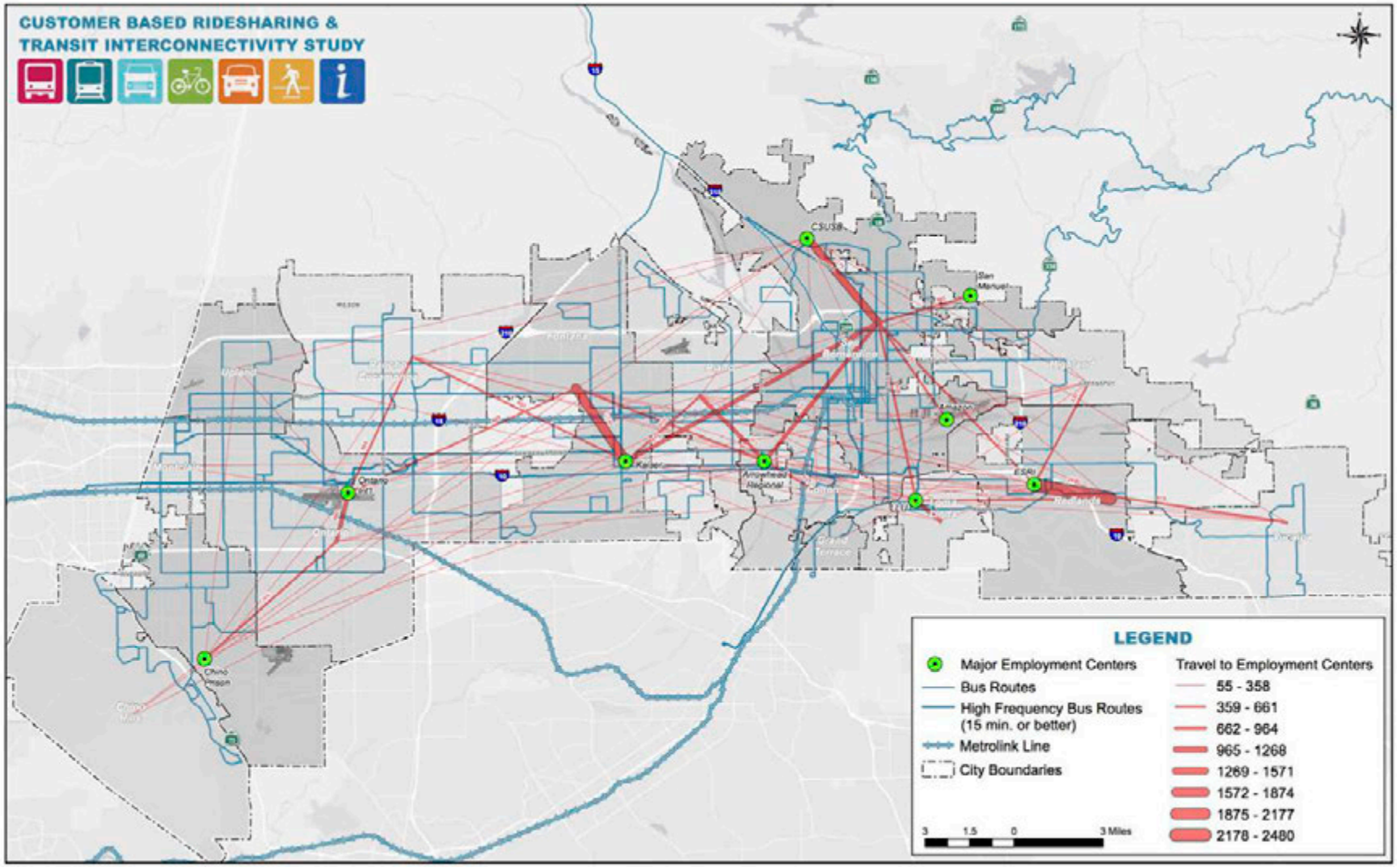
Two caveats are important. These desire lines represent an estimation of travel for the **area** around the employment center, or the TAZ. It is not travel to the employment center itself. Secondly, as the ACS is itself a sampling process, it suggests the scale of travel but is not itself sufficiently accurate to project actual numbers of daily trips between any two TAZ areas.

Figure 5 shows work trips within the San Bernardino Valley. The three largest vectors represent significant regular trip-making, estimated between 1,500 to 2,480 daily work trips made in TAZs that include: 1) the medical center destination of Kaiser Permanente in Fontana, 2) the ESRI offices in Redlands and the University of Redlands, and 3) and the campus of Cal State San Bernardino in north San Bernardino city.

Other major trip generators for trips within the Valley are suggested as the Loma Linda medical complexes of the VA Medical Center and the Loma Linda University Medical Center; the Amazon fulfillment center near the San Bernardino International Airport and the San Manual Casino. The Arrowhead Regional Medical Center in Colton is another significant trip generator. In the West Valley, the Ontario International Airport, the Victoria Gardens Mall and the Chino prison are major trip generators.

Figure 6 presents work trips coming from other counties into Valley. This shows substantial demand, albeit at much lower levels, 370 to 420 estimated daily trips in the largest corridor, between Riverside and the Chino Prison area. The rich network of trip-making from Riverside, Orange and Los Angeles counties into the San Bernardino Valley depicts the now significant commute patterns into this region from adjacent counties.

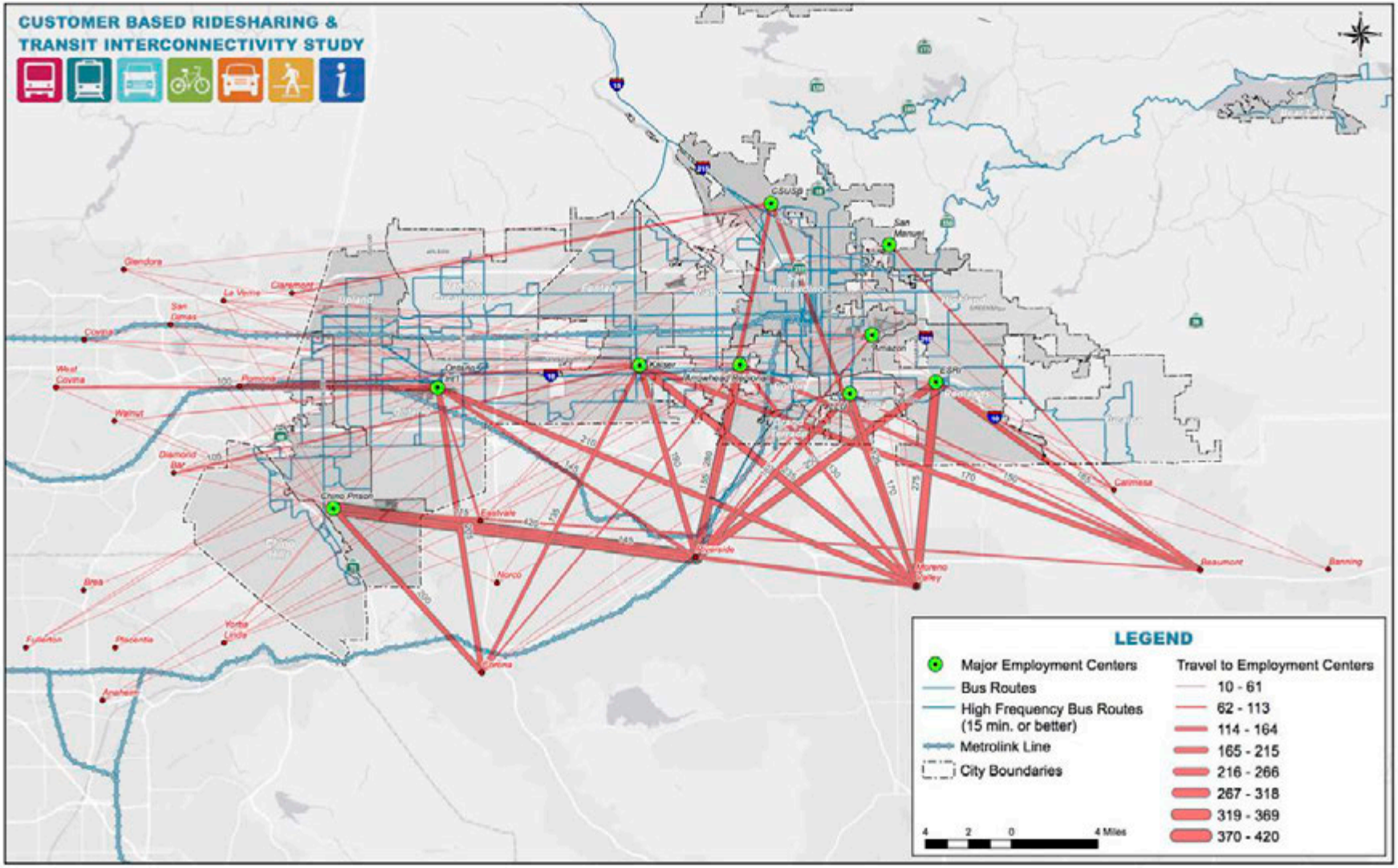
Figure 5, ACS Commute Travel Patterns Within the San Bernardino Valley



Source: 2010 – 2014 American Community Survey, 5-year estimate

Map courtesy of SBCTA

Figure 6, ACS Commute Travel Patterns from Outside the San Bernardino Valley



Source: 2010 – 2014 American Community Survey, 5-year estimate

Map courtesy of SBCTA

3.2 Work Trip Origin and Destination — AQMD Survey Data

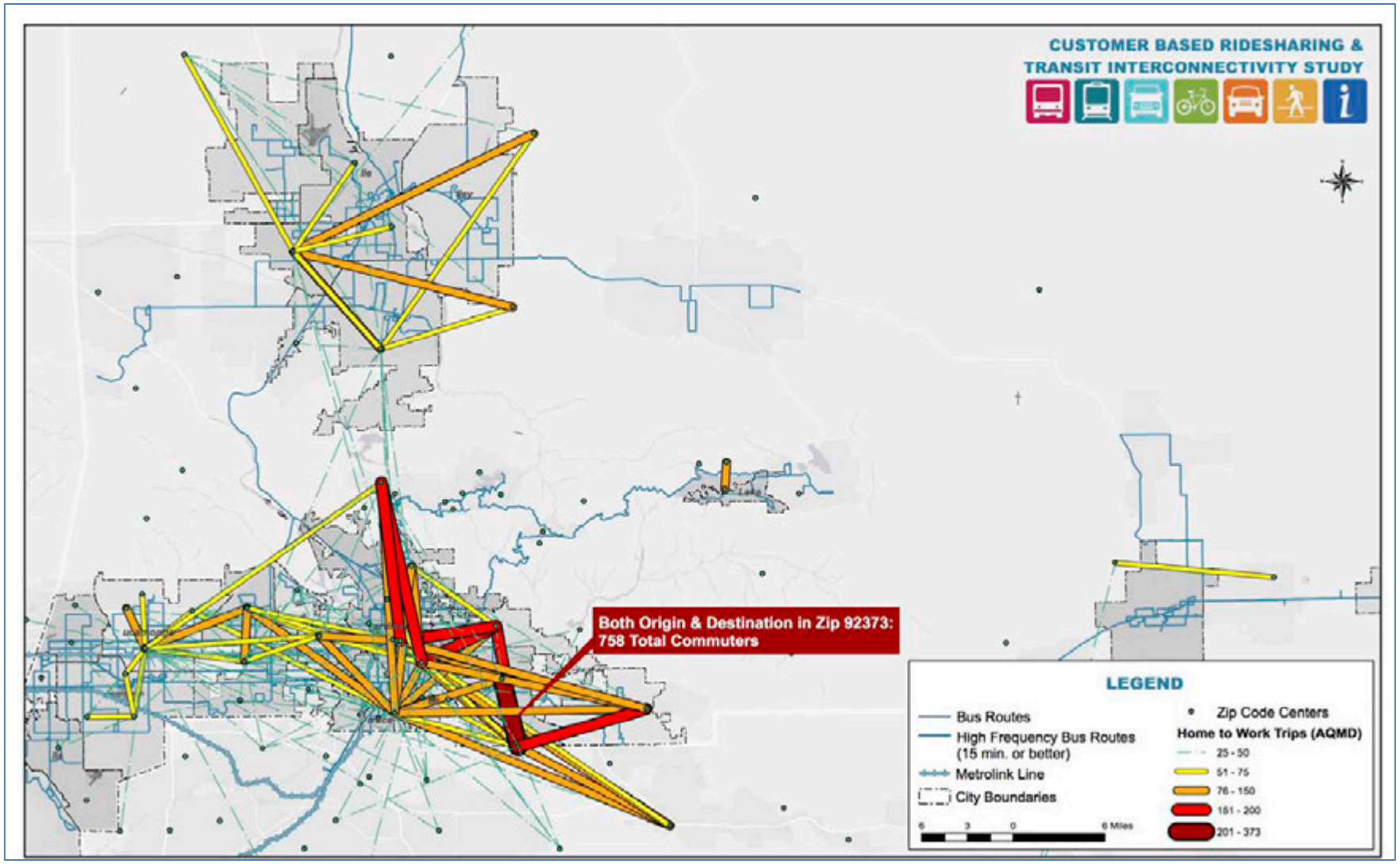
Additional work travel information was obtained from data collected from Rule 2022 annual survey processes required of large employers by the South Coast Air Management District. IE Commuter brokers these surveys on behalf of large employers enrolled with them and provided to this study two years of trip origin and destination information for Inland Empire commuters.

Figure 7 reflects the travel patterns of 7,079 trip origin and destination ZIP code pairs reported in the FY 2015/16 Rule 2022 annual survey process. These patterns presented reflect only those of large employers enrolled and of employees participating in the survey process (although these are required to be very high proportions of any given employers' employees). Some regional trip patterns are revealed within the high desert cities of Victorville and Hesperia, within Twentynine Palms and within the Big Bear area, as well as the density of trip-making in and around the San Bernardino Valley.

Figure 8 shows greater detail for the San Bernardino Valley. The ZIP code 92373, with significant travel *within it,* includes the San Bernardino city of Redlands as well as the Riverside County city of Calimesa. The largest travel corridor of 200 to 373 daily work trips *(maroon line)* is between this same Redlands area ZIP code and the San Bernardino area north of the I-10 between Tippecanoe and Waterman with numerous employment sites, as well as east to Yucaipa. Corridors in the range of 200 daily work trips *(red lines)* include: 1) between the same Redlands area ZIP code and Yucaipa; 2) the Redlands area ZIP code to north towards Highland and the San Manuel Casino; 3) from the Highland area to northern San Bernardino and to downtown San Bernardino; and 4) from Crestline towards downtown San Bernardino.

In addition to the most heavily trafficked corridors, numerous corridors of 76 to 150 daily work trips *(orange lines)* going into Loma Linda, into Fontana, into Rancho Cucamonga and into north San Bernardino near Cal State San Bernardino. Noteworthy as well are the smaller corridors of 51 to 75 daily trips (*in yellow*) and even 25 to 50 daily trips (*dotted green lines*) that crisscross the region. Even at these lower levels of trip-making, such paired ZIP codes have some potential to provide rideshare matches, even for some days a week and some trips, when work locations and work times sufficiently align.

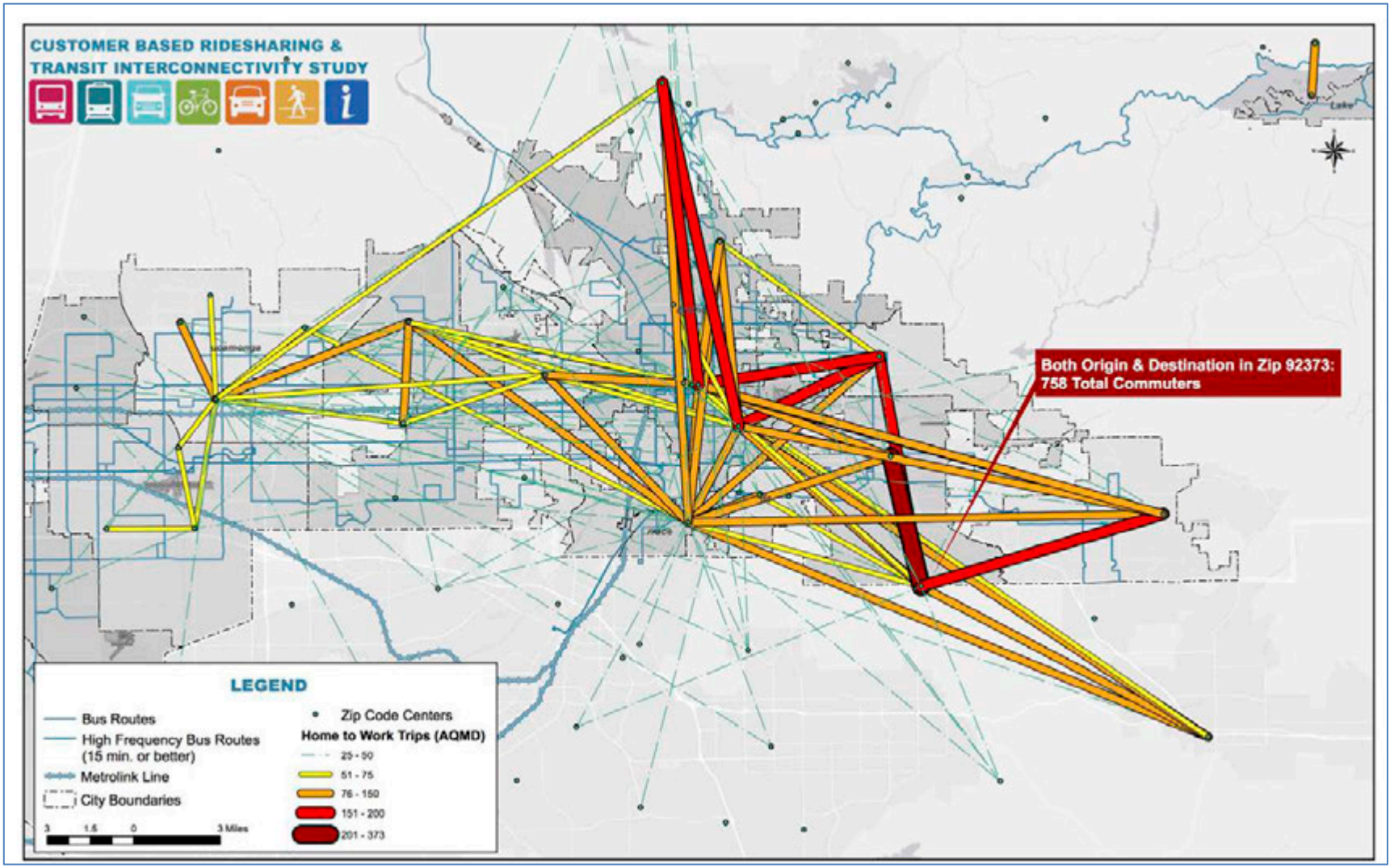
Figure 7, IE Commuters/AQMD: 2015 – 2016 Origin and Destination Pairs



Source: South Coast Air Quality Management District 20XX Survey

Courtesy of San Bernardino County Transportation Authority

Figure 8, IE Commuters/AQMD: 2015 – 2016 Origin and Destination Pairs



Source: South Coast Air Quality Management District 20XX Survey

Courtesy of San Bernardino County Transportation Authority

3.3 Omnitrans Passenger Travel Patterns

The travel patterns of riders using Omnitrans local and regional bus services are illustrated using data obtained from Omnitrans' FIXED ROUTE ONBOARD STUDY conducted during the first quarter (January through March) of 2017. The survey is conducted only every five years or so and secures detailed information from passengers reporting their trip origin and trip destination. The Omnitrans' consultants verified trip origin and destination locations through several quality control checks and review, which included a team of GIS professionals, and at times, respondent call back if contact information was provided to ensure that trip sequences were logical (pp. 19-20, FIXED ROUTE ONBOARD STUDY). SBCTA was able to extract these data to map out origin/destination intensities throughout Omnitrans service area. A total of 5,155 riders' surveys with verified geocoded origin/destination information is reported here. Moreover, the survey responses are evenly weighted to reflect equally distributed responses.

Figure 9 illustrates the areas showing the greatest concentration of origins/destinations based on survey responses. Red indicates the areas of highest origins/destinations whereas the color gradually decreases in intensity as origins/destinations are dispersed. The lower intensities throughout the service area suggest that many trips are potentially home-based. This is consistent with the Omnitrans' passenger survey findings. The scale of these intensities ranges from a single address per square mile in the lightest area to an intensity of almost 500 origin or destination pairs per square mile in the higher intensity (*dark red*) areas.

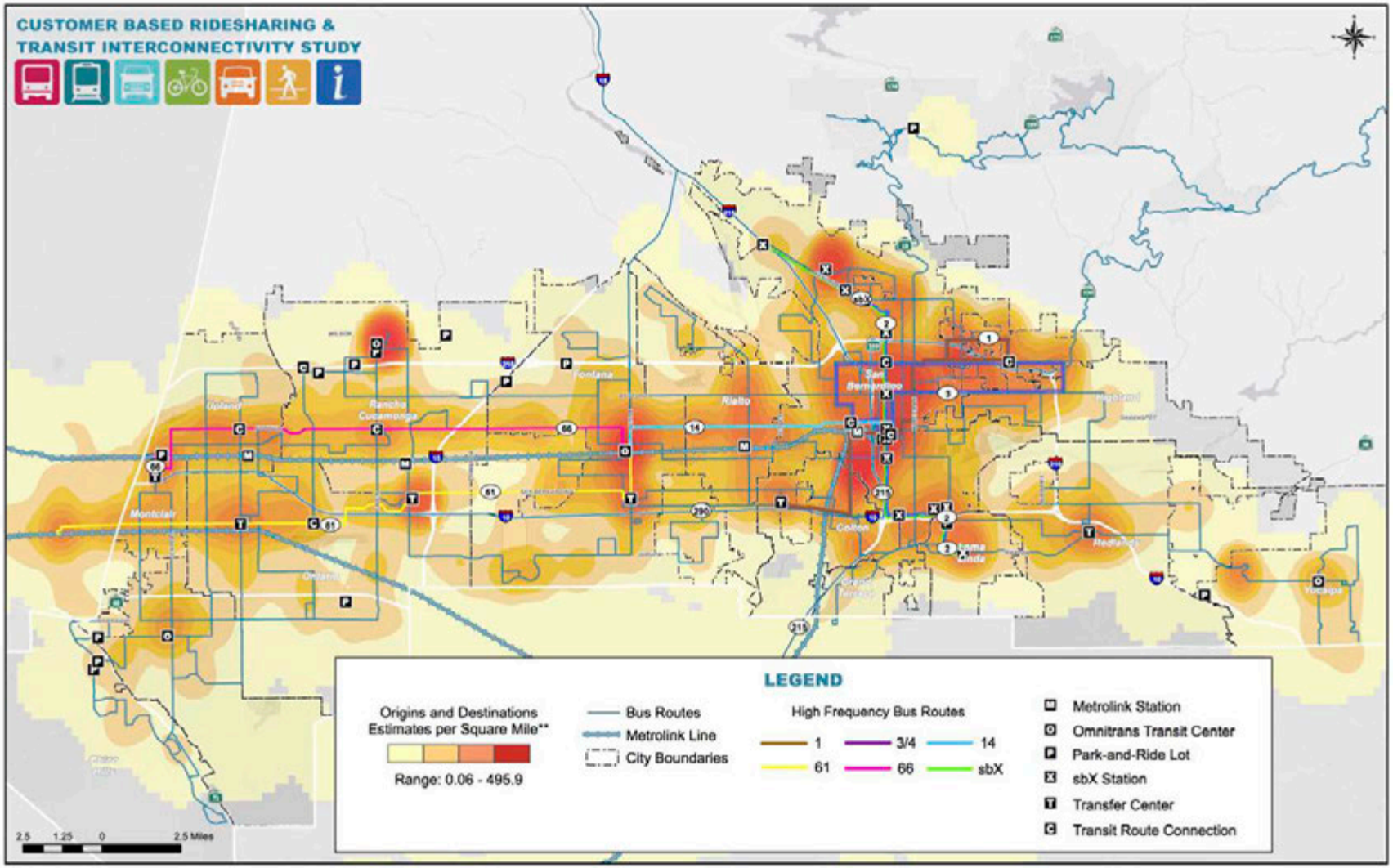
A high concentration of survey respondents reported an origin/destination in the East Valley. More importantly, the higher concentrations of origins/destinations are located along 15-minute routes, such as Routes 1, 3, 4 and the sbX Green Line.

A high concentration of trip origins and destinations also exist on Sierra Avenue in the City of Fontana. Both the Kaiser Hospital and Fontana Metrolink Station are located along that corridor. Both Routes 14 and 61 travel along that corridor, providing frequent service for Omnitrans passengers.

Concentrations in the West Valley are more prominent at Chaffey College and the Ontario Mills mall. Ontario Mills is a major shopping destination and transfer point for Omnitrans routes. Route 61 also stops at Ontario Mills.

Origin/destination intensities around the sites mentioned above are consistent with the findings of Omnitrans' 2017 FIXED ROUTE ONBOARD STUDY. The top three trip origins/destinations reported were home, work and school/college. Shopping and medical trips rank fourth and fifth, respectively, among trip purposes reported by Omnitrans bus riders.

Figure 9, Omnitrans 2017 Origin and Destination Patterns



Source: Omnitrans Fixed Route Onboard Survey Origin, Boarding, Alighting, and Destination Data

Map courtesy of SBCTA

3.4 Metrolink Passenger Travel Patterns

Metrolink travel pattern information was obtained from the METROLINK 2015 ORIGIN-DESTINATION STUDY. The study provides a detailed assessment of the commuter rail's passenger profile, including demographic composition, rider segments and trip characteristics. This study provides further insight into how Metrolink riders travel throughout the Southern California region. The San Bernardino Line primarily serves residents in the San Bernardino Valley. However, both the Inland Empire/Orange County (IEOC) and Riverside Line include a station in San Bernardino County. Several trains depart from the Santa Fe Depot in the City of San Bernardino while the Riverside Line stops at the East Ontario Station in the City of Ontario.

Metrolink's system-wide average trip length in 2015 is 37.1 miles, a decrease from the 2010 trip length of 38.0 miles. The average trip length on the San Bernardino Line decreased from 37.7 miles in 2010 to 34.6 miles in 2015. Average trip length on the Riverside Line also decreased from 39.3 miles in 2010 to 37.9 miles in 2015. Finally, the IEOC Line average trip length decreased from 36.6 miles in 2010 to 33.4 miles in 2015.

Work-related trips for the San Bernardino Line have decreased from 83 percent to 70 percent since 2008. Both the IEOC and Riverside lines represent a high percentage of commute trips with 96 and 94 percent of survey respondents reporting that the purpose of the trip is for work. System-wide, the proportion of Metrolink riders that are full-time workers continue a downward trend from a high of 90 percent in 2000, to 84 percent in 2008, 78 percent in 2010, to 74 percent in 2015.

The San Bernardino Line has one of the lowest mean days traveled per week. Fifty-five (55) percent of San Bernardino Line riders use the service five or more days per week, a decrease from 67 percent in 2008. Conversely, or both the Riverside and IEOC lines the number of passengers using the service five or more days grew to the highest percentage share throughout the system. The number of riders using the Riverside Line more than five days a week grew from 77 percent in 2008 to 83 percent in 2015 while the number of riders using the IEOC Line more than five days a week grew from 70 percent in 2008 to 81 percent in 2015. This suggests that more San Bernardino Line riders are using Metrolink episodically, less than five days a week.

Work trip destinations are analyzed by line under this report. Along the San Bernardino Line, only 6 percent of respondents reported that work trip destinations are located in San Bernardino County. This is a slight increase from the 5 percent of work trip destinations in San Bernardino County reported in 2008. The majority of work trip destinations are in Los Angeles County with 94 percent of those surveyed on the San Bernardino Line, a slight decrease from the 95 percent, which reflects the shift in work trip patterns during these two survey years.

In 2015, the riders on the IEOC Line primarily reported Orange County as the work trip destination at 99 percent of riders, with the remaining 1 percent reporting San Diego as the destination. This is a big shift from 2008 when riders reported Orange County as the primary destination at 95 percent followed by Los Angeles at 3 percent and Riverside at 1 percent. On the Riverside Line, 100 percent of those surveyed indicate that the work trip destination is in Los Angeles County. Again, this is a big shift from 2008 where 98 percent of respondents surveyed traveled to Los Angeles while 1 percent traveled to either Riverside or San Bernardino counties. It is important to note that all those surveyed could have started a trip outside of San Bernardino County.

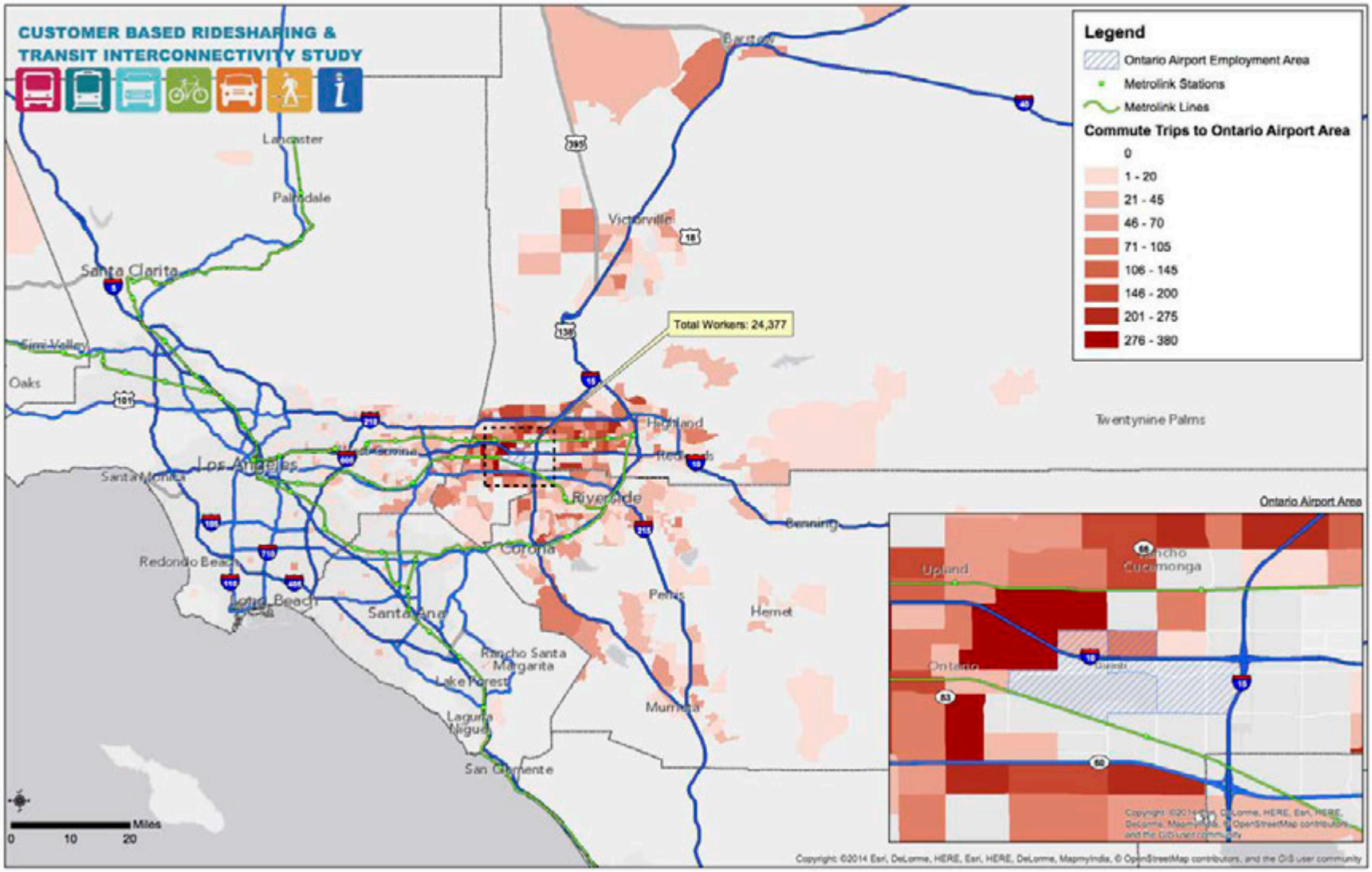
3.5 Travel to Major Destinations

Travel to major employment destinations are examined looking at travel patterns to these destinations. For the purpose of this study, Downtown San Bernardino and the Ontario International Airport are examined. Considerable analysis has been conducted in order to understand commuter patterns to these destinations. American Community Survey data is used to uncover trip origins based on ZIP code to destinations near these major destinations. Each area is represented at the transportation analysis zone (TAZ) level.

Commuters traveling from home to the Ontario Airport area are spread throughout Southern California and especially in the San Bernardino and Riverside areas. However, a majority of workers live near the airport in the City of Ontario as shown in the insert in Figure 10. These short travel commutes can create opportunities for alternative modes of transportation, including transit.

Similar to Ontario, workers commuting to Downtown San Bernardino travel from areas throughout San Bernardino and Riverside counties (Figure 11). Many of these commuters live in the City of San Bernardino with a high portion of commuters living in the northern part of the city. This can present opportunity for those to utilize the north-south routes (notably Omnitrans' Green Line) that travel into Downtown San Bernardino. Another important item of note is the number of TAZs along the San Bernardino Line throughout the suburban portions of Los Angeles County. As population and employment grows along this corridor, the opportunity to improve Metrolink service will present.

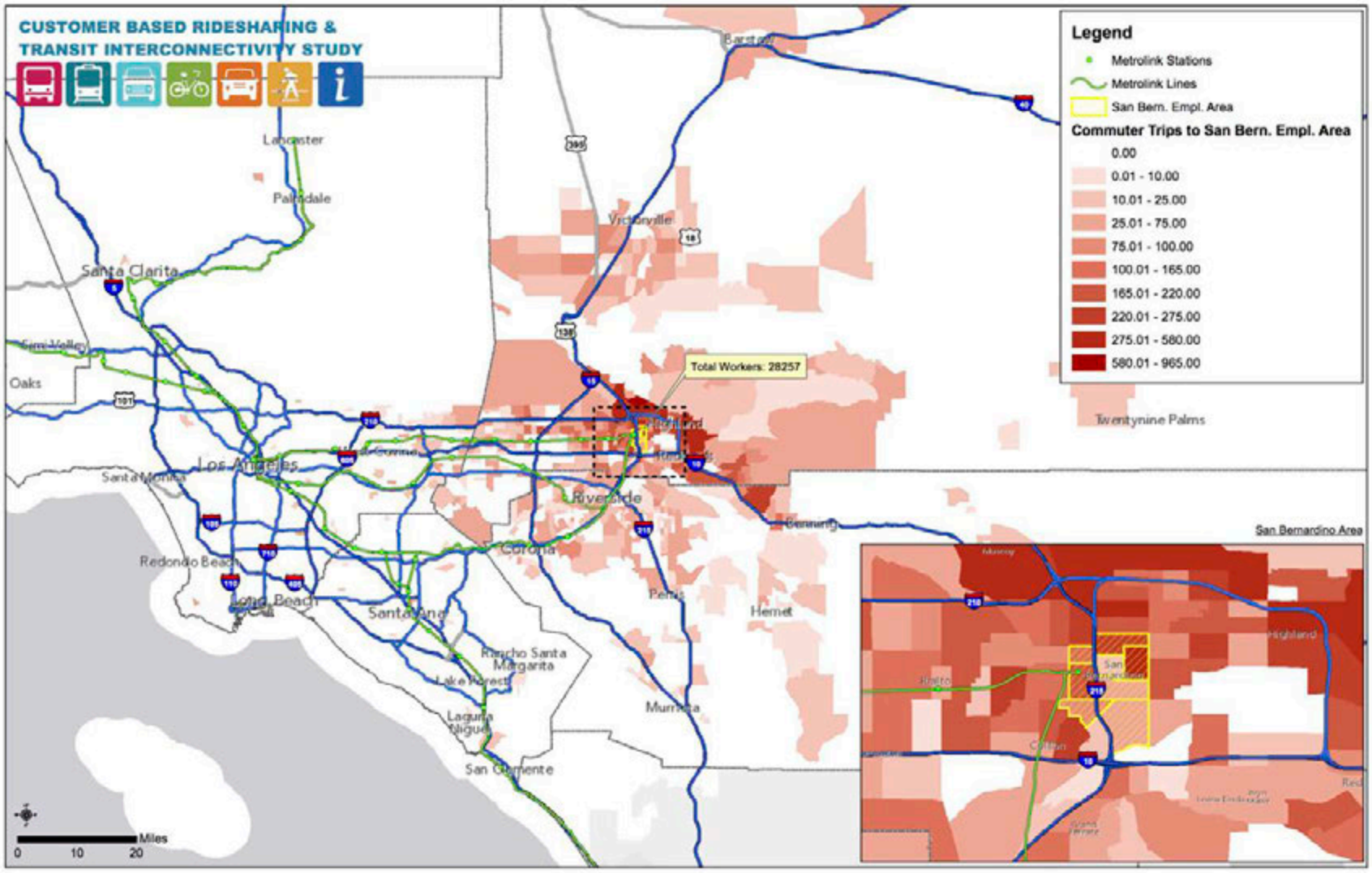
Figure 10, Ontario Airport Area Work Trips by Zone of Residence



Source: 2010 – 2014 American Community Survey, 5-year estimate

Map courtesy of SBCTA

Figure 11, San Bernardino (Rialto Avenue) Work Trips by Zone of Residence



Source: 2010 – 2014 American Community Survey, 5-year estimate

Map courtesy of SBCTA

4. AVAILABLE TRAVEL MODES

This chapter summarizes the transit services operating within the San Bernardino Valley. High-frequency Omnitrans bus routes are described and available bus-to-train transfer information, as well as other regional transit providers' service. The chapter details selected characteristics of Metrolink stations and other major infrastructure facilities of transit centers and transfer locations, as well as bicycle and park-and-ride lot infrastructure.

4.1 Omnitrans Bus Service in San Bernardino Valley

SCAG identifies transit trips per capita as a way of measuring transit performance at a regional level related to the change in population over time. According to SCAG's 2016-2040 REGIONAL TRANSPORTATION PLAN/SUSTAINABLE COMMUNITIES STRATEGIES (RTP/SCS), a region-wide goal of 34.9 trips per person was established in the mid-1990s at a time when per-capita trips were declining. Subsequently, the trips per capita measure was endorsed by SCAG's Regional Transit Task Force (RTTF) and Transportation and Communications Committee (TCC) during the development of the 2001 and 2004 RTP. The provision of public transportation service has changed over the course of 20 years, as well as a growth in population.

Table 8 considers trips per capita for various transit services within the region and presents service area population as well as passenger trip. Omnitrans and other neighboring transit systems characteristics are presented from data drawn from the 2014 National Transit Database (NTD) data sets. It is important to note that public transit service environments vary widely in the SCAG region, from the more density-populated areas of Los Angeles city and western Los Angeles County; these vary considerably from the low-density suburban and rural communities that comprise much of San Bernardino and Riverside counties.

Examining trips per capita at the individual operator level provides an understanding of the consumption of public transportation services relative to the service area population. With a service area population of almost 1.5 million residents, Omnitrans is serving almost 15.2 million annual trips, translating to 10.2 trips per capita. This represents the highest trips per capita rate for any San Bernardino County operator but sits on the lower end of the rates for peer systems with similar population densities, nearly 3,205 persons per square mile.

Notably, as transit services across the region grapple with a period of declining ridership, a consequence of multiple factors that include low gas prices, this indicator of trips per capita will reflect that decline. Nonetheless, it is a valuable measure that relates population and transit use.

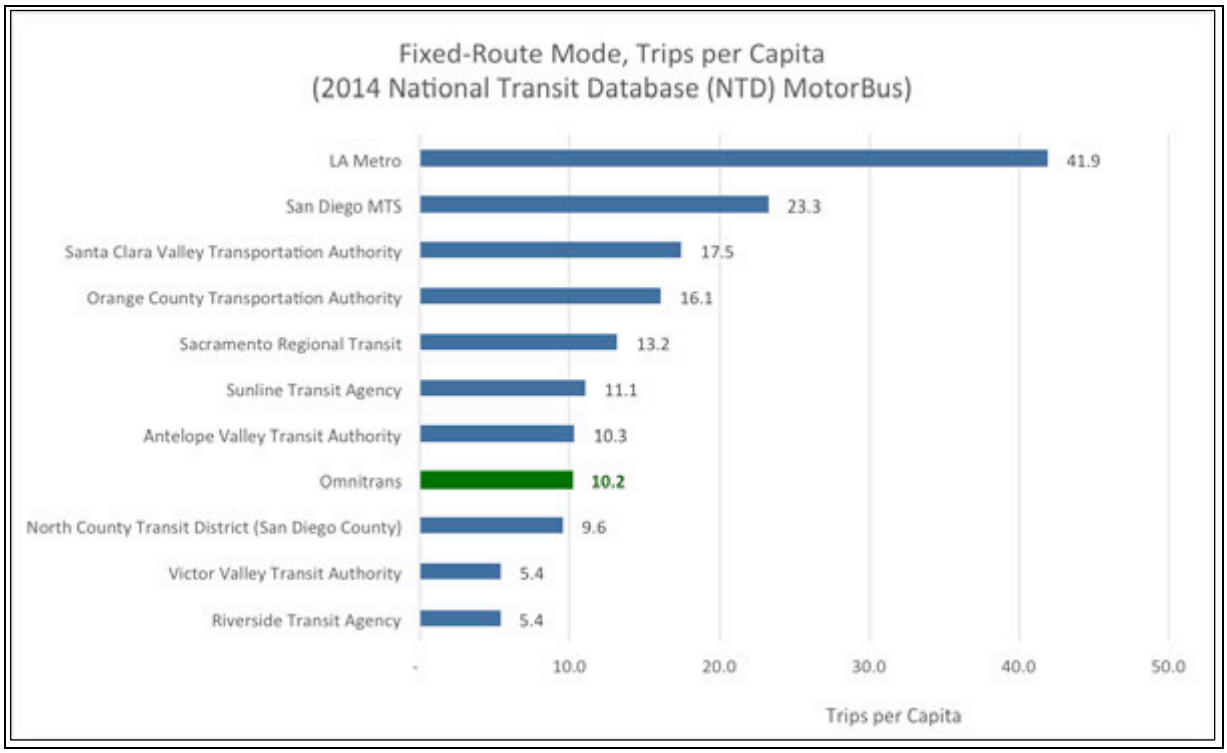
Table 8, Transit Agency Trips Per Capita

2014 National Transit Database Motor Bus Statistics Only	Service Area Population	Unlinked Passenger Trips	Trips per Capita	Service Area Square Mileage	Population per Square Mile (In persons)
Omnitrans	1,484,000	15,119,122	**10.2**	463	3,205
Victor Valley Transit Authority	334,988	1,816,026	**5.4**	424	790
Riverside Transit Agency	1,700,356	9,161,851	**5.4**	2,725	624
North County Transit District	849,420	8,135,330	**9.6**	403	2,108
Antelope Valley Transit Authority	349,050	3,606,357	**10.3**	1,200	291
SunLine Transit Agency	423,644	4,684,278	**11.1**	1,120	378
Sacramento Regional Transit	1,035,779	13,657,668	**13.2**	231	4,484
Orange County Transportation Authority	3,041,754	48,904,819	**16.1**	465	6,541
Santa Clara Valley Transportation Authority	1,880,876	32,858,645	**17.5**	346	5,436
San Diego MTS	2,218,791	51,630,106	**23.3**	716	3,099
Los Angeles Metro	8,626,817	361,601,141	**41.9**	1,513	5,702

Source: 2014 National Transit Database

Figure 12 graphically presents the trips per capita rates above, showing the highest trips per capita rates for the most urban systems in Los Angeles, San Diego and Orange counties. Operators whose service areas include more rural communities register on the lower end of the scale. This is true for VVTA servicing the high desert area of San Bernardino County and for RTA, which has the second largest service area in the U.S. but a very low overall service area density of only 624 persons per square mile.

Figure 12, Transit Agency Trips Per Capita



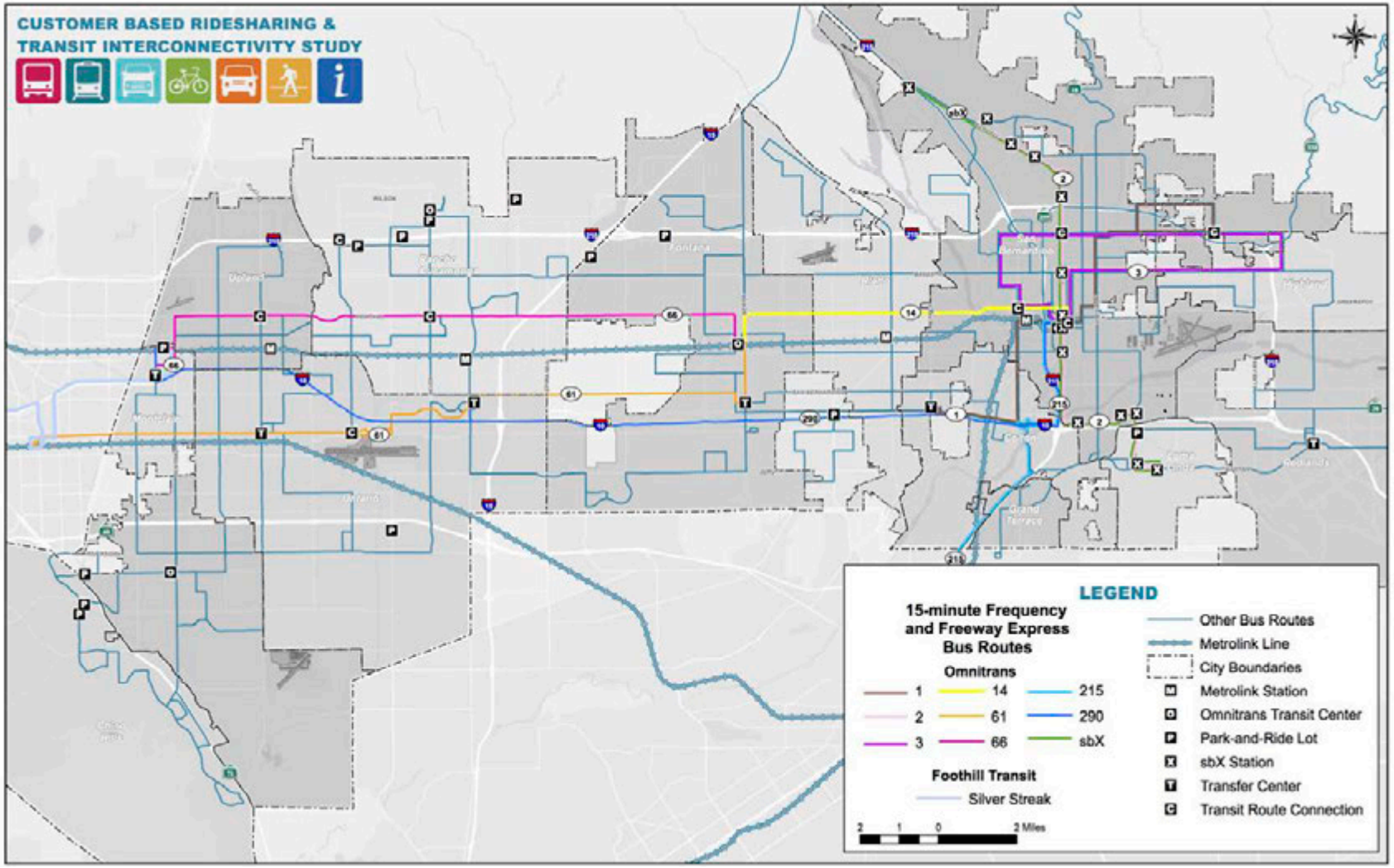
Omnitrans

Omnitrans is the primary bus service operating in the San Bernardino Valley. It is a Joint Powers Authority (JPA) formed in 1976 to provide public transportation in the San Bernardino Valley, including the County of San Bernardino and the 15 member cities. Omnitrans currently operates 32 fixed routes with service frequency ranging from every 10 minutes on its bus rapid transit (BRT) Green Line/ sbX to every 70 minutes. Most of Omnitrans' routes operate seven days per week with weekday service operating from 3:48 a.m. to 11:13 p.m. Omnitrans serves more than 14 million passenger trips annually across its many services.

Omnitrans' family of services, as seen in Figure 13, includes local fixed route, express fixed route, bus rapid transit and community circulators, with its high-frequency routes of 15 minutes or less presented in the various colors.

Omnitrans' Americans with Disabilities Act (ADA) complementary paratransit demand response service, ACCESS, is reflected in Figure 14, showing the ¾-mile service area that surrounds the fixed route network and represents the ADA trip service area. Omnitrans also is the designated Consolidated Transportation Service Agency (CTSA) for the San Bernardino Valley, supporting various specialized transportation services for seniors and persons with disabilities.

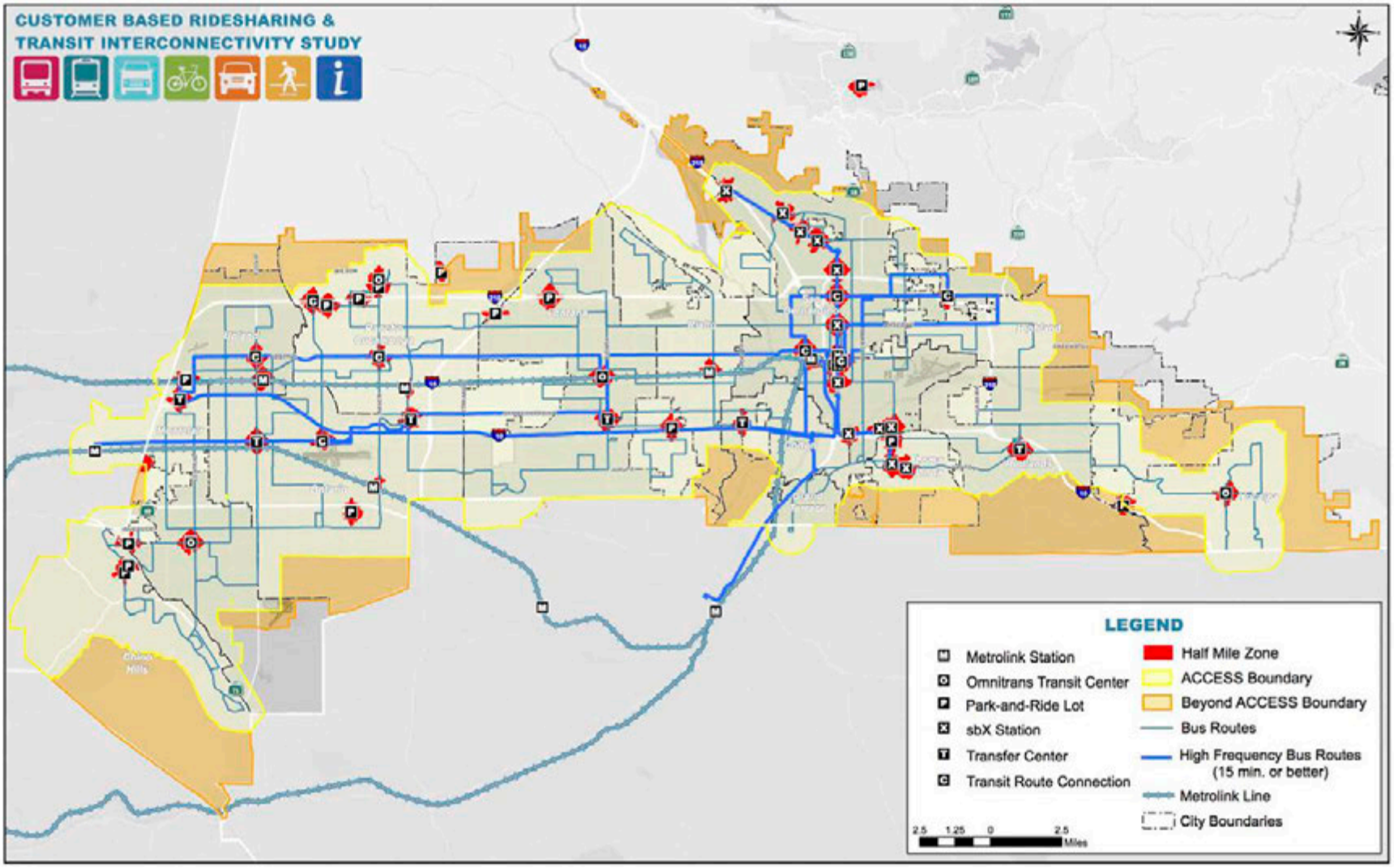
Figure 13, Omnitrans Family of Services



Source: Omnitrans

Map courtesy of SBCTA

Figure 14, Omnitrans ADA Complementary Paratransit Services



Source: Omnitrans

Map courtesy of SBCTA

Performance Data

The performance of Omnitrans services is examined over a five-year period to provide further understanding of local and regional bus services for the period of FY 2012 through FY 2016. Due to differences between fixed-route modes, reported in Table 9 and demand response modes in Table 10, with system-wide performance measures presented in Table 11.

Table 9 shows the fixed-route ridership declining gradually between 2012 and 2014, then more sharply in 2015 and 2016, losing more than 1 million riders in each of those years. While ridership declines, revenue hours and miles have increased over the same period, resulting in lower productivity in terms of passengers per hour (now 19.5 passengers per hour) and passengers per mile (now 1.4 passengers per mile) with increasing costs per passenger (now $4.51 per passenger trip).

Table 9, Omnitrans Fixed-Route Performance Statistics

Omnitrans 5-Year Fixed-Route Performance Statistics						
	2012	2013	2014	2015	2016	5-Year Trend
Performance Data						
Passenger Trips	15,673,759	15,655,099	15,192,274	13,922,152	12,379,517	
Revenue Hours	612,394	615,860	622,736	646,010	635,371	
Revenue Miles	7,909,565	7,861,056	7,977,526	8,407,853	8,733,290	
Passenger Miles	74,842,577	75,257,288	75,166,912	65,905,843	64,255,311	
Operating Cost	$56,002,643	$56,777,664	$51,412,292	$57,376,347	$55,777,931	
Fare Revenue	$13,359,410	$13,153,101	$13,162,600	$13,623,520	$12,439,216	
Performance Measures						
Passengers per Revenue Hour	25.6	25.4	24.4	21.6	19.5	
Passenger per Revenue Mile	2.0	2.0	1.9	1.7	1.4	
Cost per Passenger	$3.57	$3.63	$3.38	$4.12	$4.51	
Cost per Hour	$91.45	$92.19	$82.56	$88.82	$87.79	
Cost per Mile	$7.08	$7.22	$6.44	$6.82	$6.39	
Subsidy per Passenger Mile	$0.57	$0.58	$0.51	$0.66	$0.67	
Farebox Recovery	23.9%	23.2%	25.6%	23.7%	22.3%	
Avg. Trip Length (miles)	4.8	4.8	4.9	4.7	5.2	

FY 2012-2016 TransTrack Data

Table 10 includes demand response data for Omnitrans, which reveals dips in ridership in 2015 and 2016 that likely reflected the discontinuation of the OmniLink general public dial-a-ride service for the cities of Chino Hills and Yucaipa in September of 2014. Statistics for 2015 and 2016, as shown in Table 10, are positive, with a decrease in revenue hours and miles but increases in passenger miles and fare revenue. Cost indicators have risen only slightly in 2016, now $28.79, while operating costs were reduced as ridership modestly declined. Demand response trips are getting longer, increasing from 10.3 to 14.8 miles per trip, a 43 percent increase. Additionally, a new eligibility program in 2016 saw a 55 percent reduction in ADA Access applications and a 22 percent reduction in granted eligibility.

Table 10, Omnitrans Demand Response Performance History

Omnitrans 5-Year Demand Response Performance Statistics						
	2012	2013	2014	2015	2016	5-Year Trend
Performance Data						
Passenger Trips	478,342	491,179	497,020	469,042	433,954	
Revenue Hours	183,631	182,214	176,717	175,638	170,361	
Revenue Miles	2,940,052	3,005,252	2,795,707	2,777,423	2,586,992	
Passenger Miles	4,925,290	5,431,559	6,662,977	6,940,447	6,177,991	
Operating Cost	$12,456,107	$12,569,094	$12,897,359	$12,856,468	$12,622,862	
Fare Revenue	$1,570,897	$1,584,791	$1,610,120	$1,782,235	$2,365,870	
Performance Measures						
Passengers per Revenue Hour	2.6	2.7	2.8	2.7	2.5	
Passenger per Revenue Mile	0.2	0.2	0.2	0.2	0.2	
Cost per Passenger	$26.04	$25.59	$25.95	$27.41	$29.09	
Cost per Hour	$67.83	$68.98	$72.98	$73.20	$74.09	
Cost per Mile	$4.24	$4.18	$4.61	$4.63	$4.88	
Subsidy per Passenger Mile	$2.21	$2.02	$1.69	$1.60	$1.66	
Farebox Recovery	12.6%	12.6%	12.5%	13.9%	18.7%	
Avg. Trip Length (miles)	10.3	11.1	13.4	14.8	14.2	
FY 2012-2016 TransTrack Data						

In Table 11 system-wide performance reveals similar ridership trends that reflect fixed-route ridership declines and also mode differences, in terms of cost where fixed-route services represent almost 97 percent of all passenger trips but only 81 percent of overall costs.

Table 11, Omnitrans System-Wide Performance History

Omnitrans 5-Year System-Wide Performance Statistics						
	2012	2013	2014	2015	2016	5-Year Trend
Performance Data						
Passenger Trips	16,152,101	16,146,278	15,689,294	14,391,194	12,813,471	
Revenue Hours	796,025	798,074	799,453	821,648	805,732	
Revenue Miles	10,849,617	10,866,308	10,773,233	11,185,276	11,320,282	
Passenger Miles	79,767,867	80,688,847	81,829,889	72,846,290	70,433,302	
Operating Cost	$68,458,750	$69,346,758	$64,309,651	$70,232,815	$68,400,793	
Fare Revenue	$14,930,307	$14,737,892	$14,772,720	$15,405,755	$14,805,086	
Performance Measures						
Passengers per Revenue Hour	20.3	20.2	19.6	17.5	15.9	
Passenger per Revenue Mile	1.5	1.5	1.5	1.3	1.1	
Cost per Passenger	$4.24	$4.29	$4.10	$4.88	$5.34	
Cost per Hour	$86.00	$86.89	$80.44	$85.48	$84.89	
Cost per Mile	$6.31	$6.38	$5.97	$6.28	$6.04	
Subsidy per Passenger Mile	$0.67	$0.68	$0.61	$0.75	N/A	
Farebox Recovery	21.8%	21.3%	23.0%	21.9%	21.6%	
Avg. Trip Length (miles)	4.9	5.0	5.2	5.1	N/A	
FY 2012-2016 TransTrack Data						

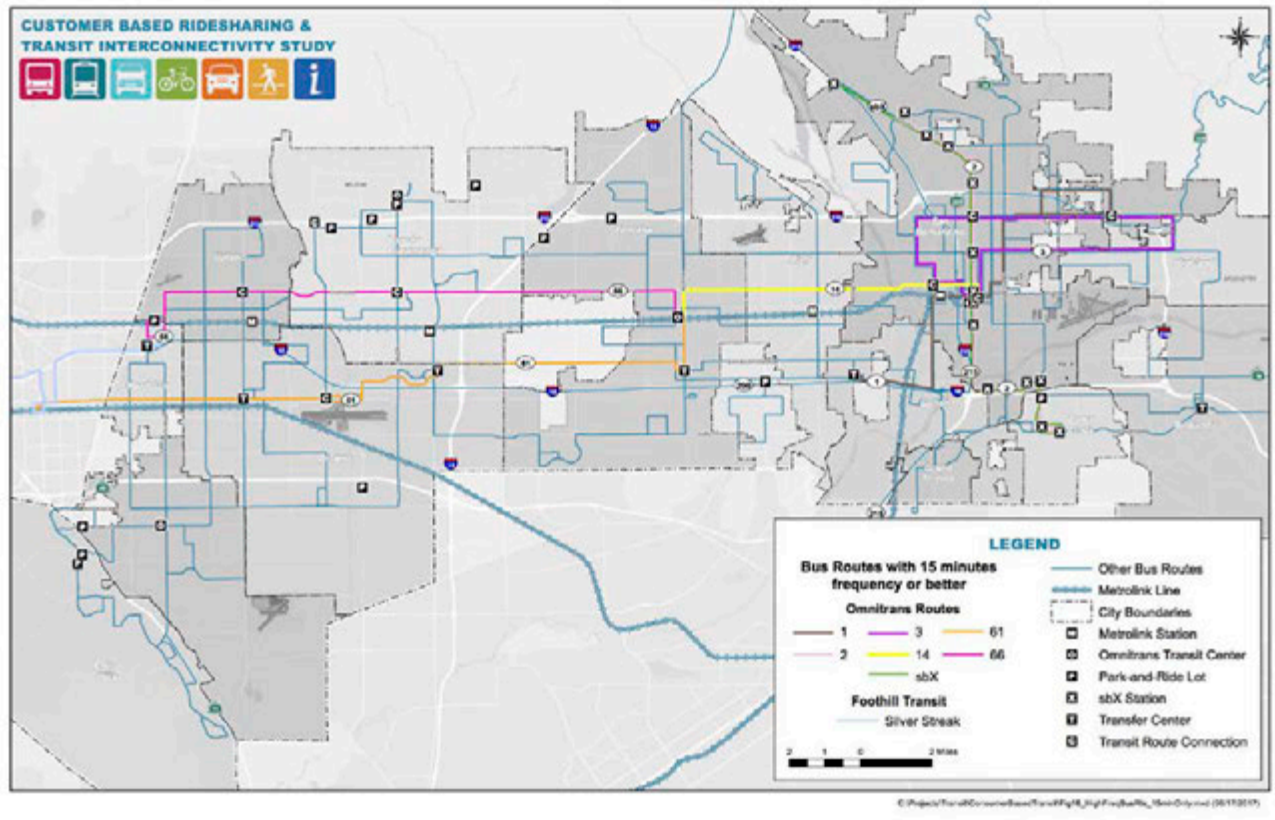
High-Frequency Transit Corridors — Bus

The provision of High Quality Transit Corridors (HQTCs) within a service area carries benefits and privileges in the State of California. Identification of a HQTC in a Metropolitan Planning Organization's Regional Transportation Plan allows a local jurisdiction to designate the areas within a one-half mile of the corridor as

an "infill opportunity zone." HQTCs are defined by California as corridors with fixed-route transit service with 15-minute headways or less. Figure 15 presents Omnitrans' high-frequency bus routes.

The following section provides a description of each Omnitrans route that operates at 15-minute frequencies or better. Currently, there are eight routes that fall within the HQTC definition by providing frequent service in the San Bernardino Valley. These routes primarily operate east-west with routes across the region, as with Routes 16 and 66 on the western side and Routes 1 and 14 in the eastern portion of the service area. The eastern side of the service area has more north-south orientation sbX or as a circulator (e.g., Route 3).

Figure 15, Omnitrans Family of Service



Map courtesy of SBCTA

Summaries follow of the high-frequency services and ridership by stop for:

- San Bernardino Valley Express sbX Green Line – Kendall and Palm – Cal State – E Street – Loma Linda
- Route 1 – ARMC – San Bernardino – Del Rosa
- Routes 3 and 4 – Baseline – Highland – San Bernardino
- Route 14 – Fontana – Foothill – San Bernardino
- Route 61 – Fontana – Ontario Mills – Pomona
- Route 66 – Fontana – Foothill Boulevard – Montclair

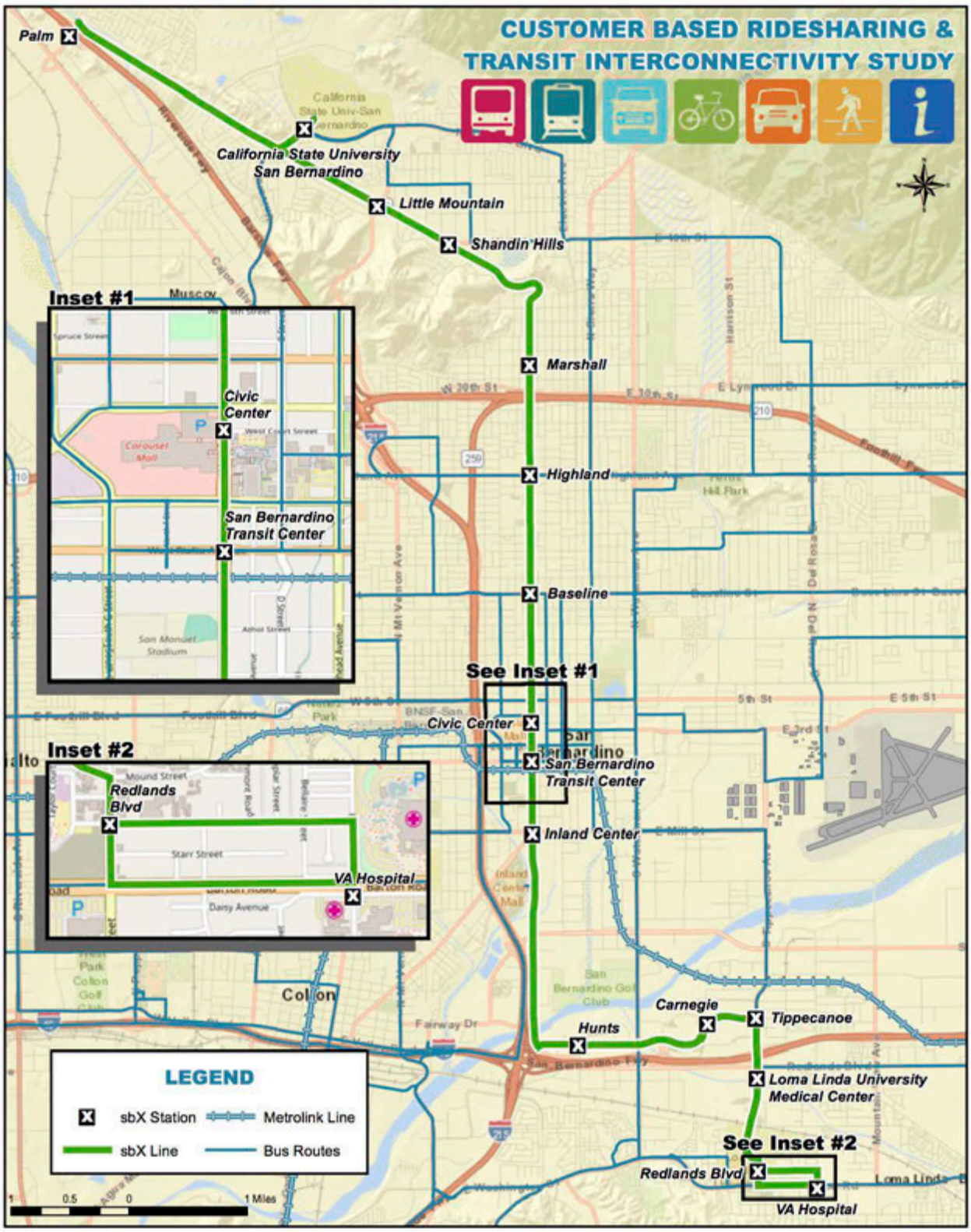
San Bernardino Valley Express (sbX) Green Line

The sbX Program is Omnitrans' bus rapid transit (BRT) program providing enhanced public transportation services in the San Bernardino Valley. In April 2014, Omnitrans began operation of the sbX Green Line, a north-south BRT route along the E Street Corridor starting near California State University, San Bernardino to the north and terminating at the Jerry L. Pettis Memorial Veterans Administration (VA) Hospital in Loma Linda to the south.

The sbX corridor extends for 15.7 miles, with 5.6 miles of dedicated bus-only lanes. Buses operate on side-running mixed-flow lanes for the remaining 10.1 miles. Sixteen sbX stations are located along the route (Figure 16), all of which offer off-vehicle, ticket vending machines, NexTrip bus arrival signs, Wi-Fi access for passengers, and dedicated emergency and customer phones. Station platforms are designed to allow low-floor bus boarding, which improves passenger access to vehicles.

The Green Line runs parallel to Omnitrans Route 2, which provides hourly local service on weekdays and 20-minute service on weekends along E Street. The Green Line does not run on weekends. When compared to local Route 2, sbX passengers ***will save an average of 19 minutes*** when traveling from the beginning of the route to the end of the route. Several east-west routes connect with the Green Line at various stations.

Figure 16, sbX Green Line Route and Stations



Source: Omnitrans

Map courtesy of SBCTA

Fares for both Omnitrans local fixed-route service and sbX are the same and do not require different passes when transferring from one system to the other. Therefore, a day pass, 7-day pass and 31-day pass allow a passenger to travel on both local fixed route and sbX. Table 12 presents the sbX stations, connecting local fixed route service, and parking availability.

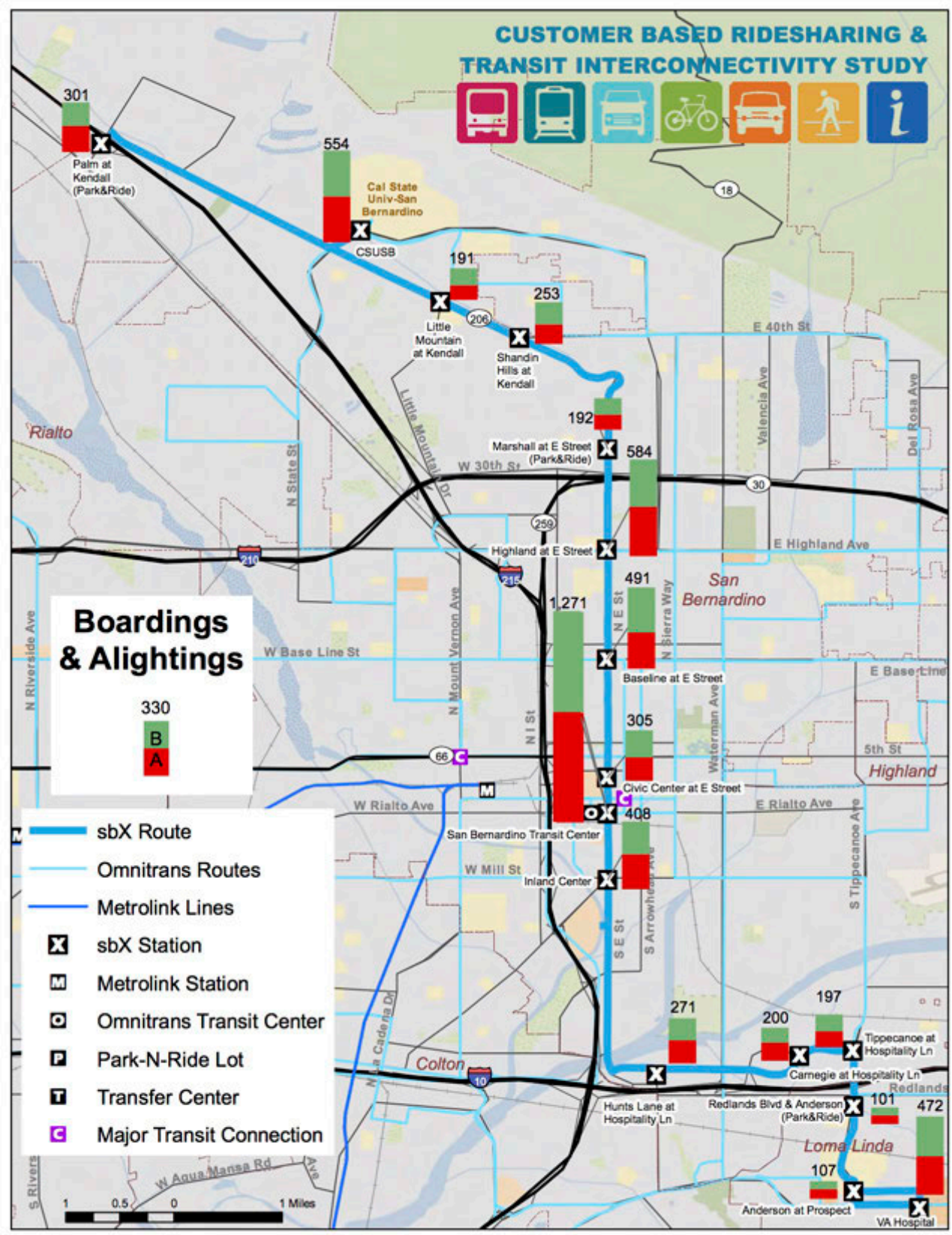
Table 12, sbX Green Line Stations

sbX Station Name	Connecting Routes	Parking
Palm	2	Park-and-ride
California State University San Bernardino	2, 5, 7, 11	None
Little Mountain	2, 5	None
Shandin Hills	2	None
Marshall	2	Park-and-ride
Highland	2, 3/4	None
Baseline	2	None
Civic Center	2, 10	Park-and-ride
San Bernardino Transit Center	1, 2, 3/4, 7, 8, 10, 11, 14, 15, 215, 290, Mountain Transit, VVTA BV Link, Pass Transit	None
Inland Center	2	None
Hunts	2	None
Carnegie	2	None
Tippecanoe	2, 8	None
Redlands Blvd.	2, 8	Park-and-ride
Loma Linda University Medical Center	2	None
VA Hospital	2, 19, 325, RTA, Pass Transit	None

Unlinked passenger trips have increased since the sbX began operations. In FY 2016, Omnitrans reported 711,934 unlinked passenger trips on the Green Line. Trips on sbX Green Line constitute over 5.5 percent of unlinked passenger trips taken on Omnitrans. Figure 17 illustrates average weekday passenger boardings by sbX Station. Passenger boardings are the highest at the San Bernardino Transit Center (20.6 percent), followed by Highland at E Street (9.7 percent), and then by California State University, San Bernardino (9.4 percent).

One can expect that the high boardings and alightings rate at the San Bernardino Transit Center can be due to the number of transit routes one can transfer to at this facility. In addition, the transit center is located in downtown with high concentrations of employment as previously depicted in Figure 11. Boardings and alightings at the Highland at E Street Station can be attributed to transfer activity on Routes 3 and 4, which operate every 15 minutes. Major destinations along Highland Avenue include St. Bernadine Medical Center, Department of Social Services and Patton State Hospital.

Figure 17, sbX Weekday Boardings and Alightings



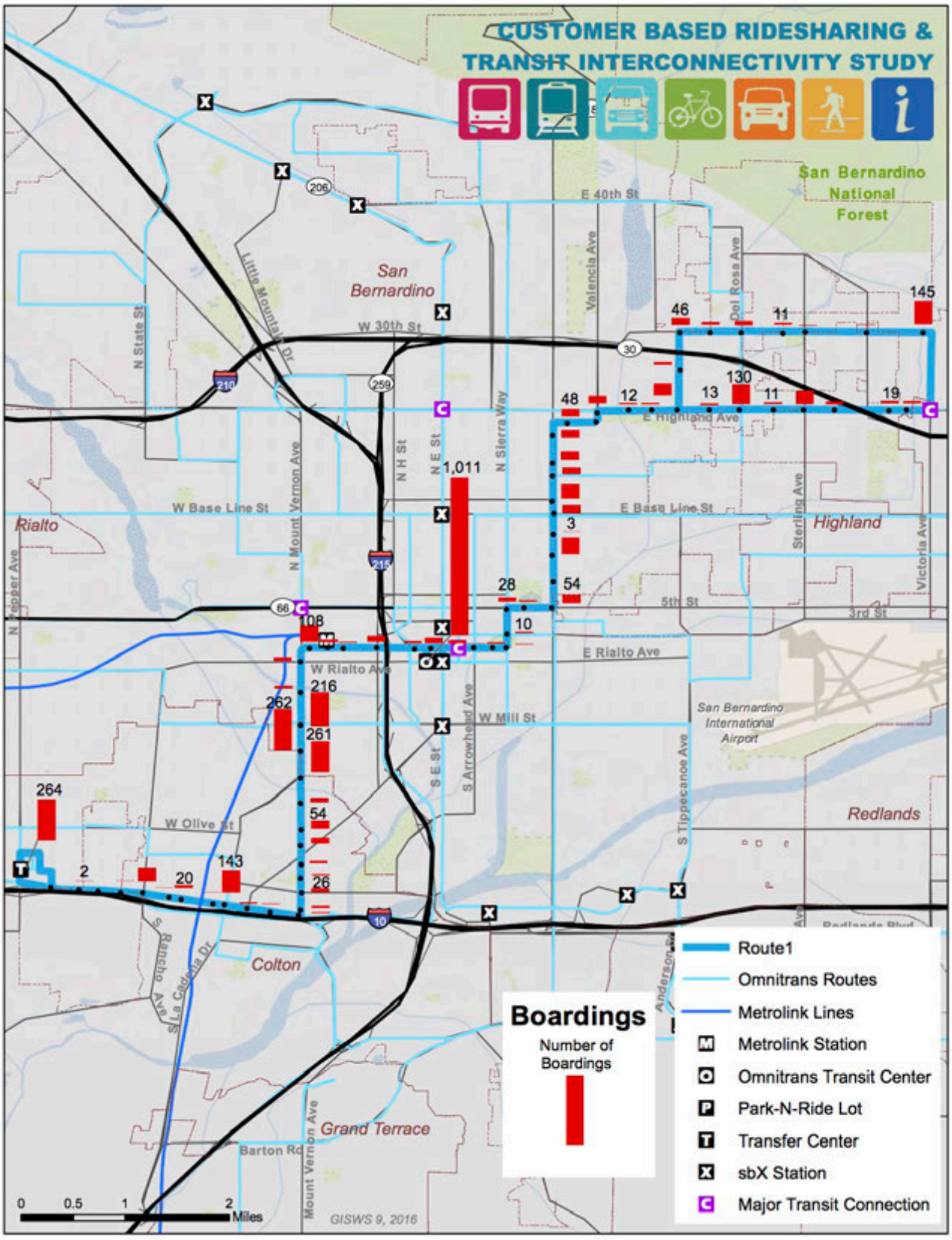
Source: Omnitrans Boarding and Alighting Data for September – October 2015

Route 1 – ARMC – San Bernardino – Del Rosa

Route 1 travels north-south between the cities of San Bernardino and Colton. Route 1 operates at 15-minute headways during the weekday and 30-minute headways on the weekends. Major destinations along Route 1 include the Arrowhead Regional Medical Center, Colton High School, San Bernardino Valley College, SBTC, City of San Bernardino Civic Center, Sierra High School, St. Bernardine Medical Center and the San Manuel Indian Bingo and Casino. In FY 16, Omnitrans reported 1,012,329 annual unlinked passenger trips on Route 1. Unlinked passenger trips on Route 1 constitute 7.9 percent of the overall trips taken on Omnitrans in FY 16.

Figure 18 illustrates average weekday boardings/alightings at each stop along the corridor. Areas where boardings are high include San Bernardino Valley College, Mt. Vernon Avenue and Mill Street, and the stop near the San Manuel Indian Bingo and Casino. Transfer connections between high-frequency Routes 3 and 4 are available at different segments of the route. In March 2016, transfers between these two high frequency routes were the highest for Route 1.

Figure 18, Route 1 Weekday Boardings



Source: Omnitrans Boarding and Alighting Data for September – October 2015

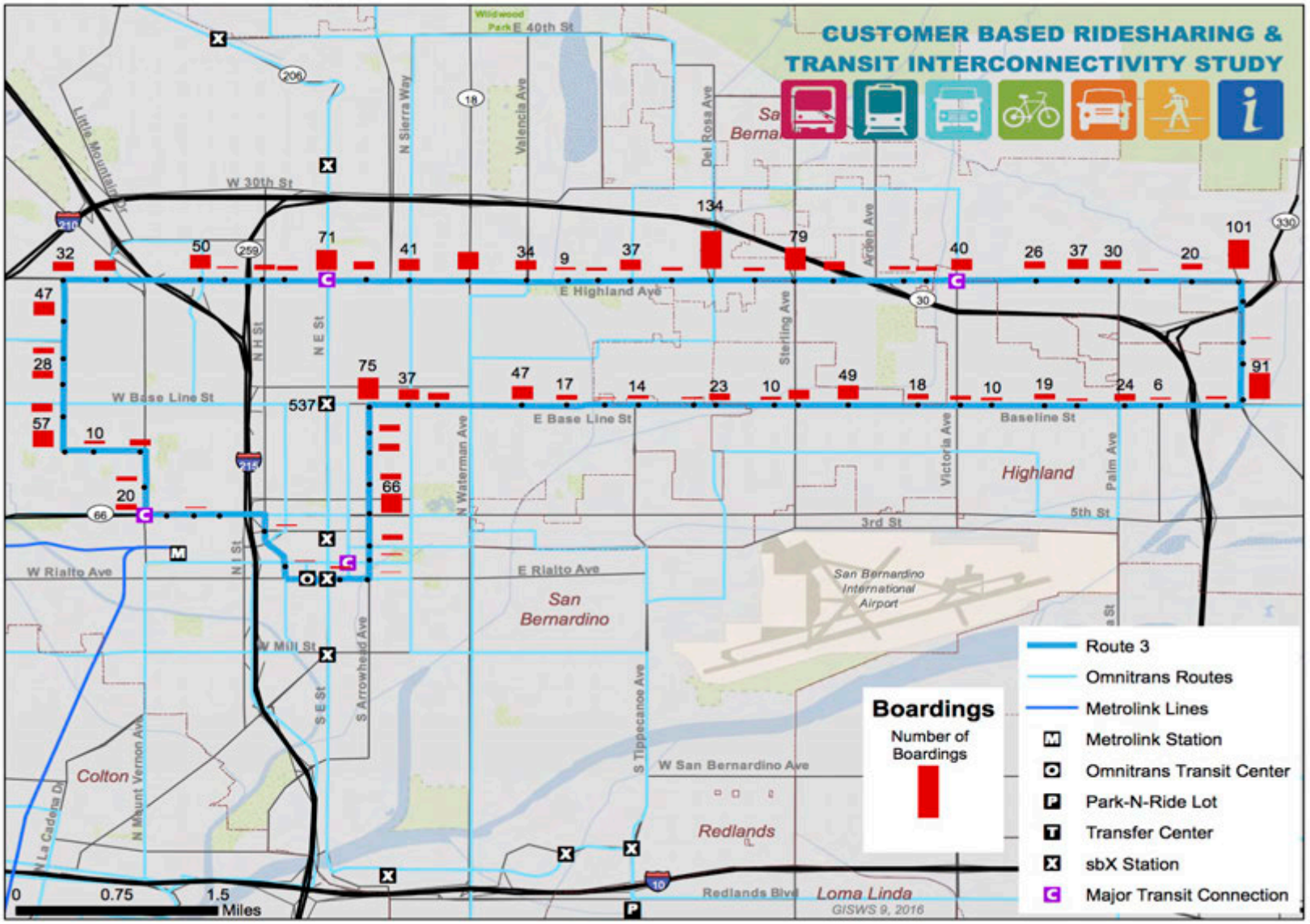
Routes 3/4 – Baseline – Highland – San Bernardino

Route 3/4 operates as a loop in the cities of San Bernardino and Highland. Route 3 travels counter-clockwise while Route 4 travels clockwise. Major destinations along this circulator include San Bernardino Community Hospital, San Bernardino High School, St. Bernadine Medical Center, San Gorgonio High School, Patton State Hospital, Beaver Medical Clinic and SBTC. In FY 16, Route 3 had a total of 719,287 annual unlinked passenger trips contributing to 5.6 percent of all unlinked passenger trips taken on Omnitrans.

Route 4 reported slightly higher ridership numbers, with 746,969 unlinked passenger trips in FY 16. The number of unlinked passenger trips on Route 4 is slightly higher than Route 3 and constitutes 5.8 percent of Omnitrans' overall unlinked passenger trips.

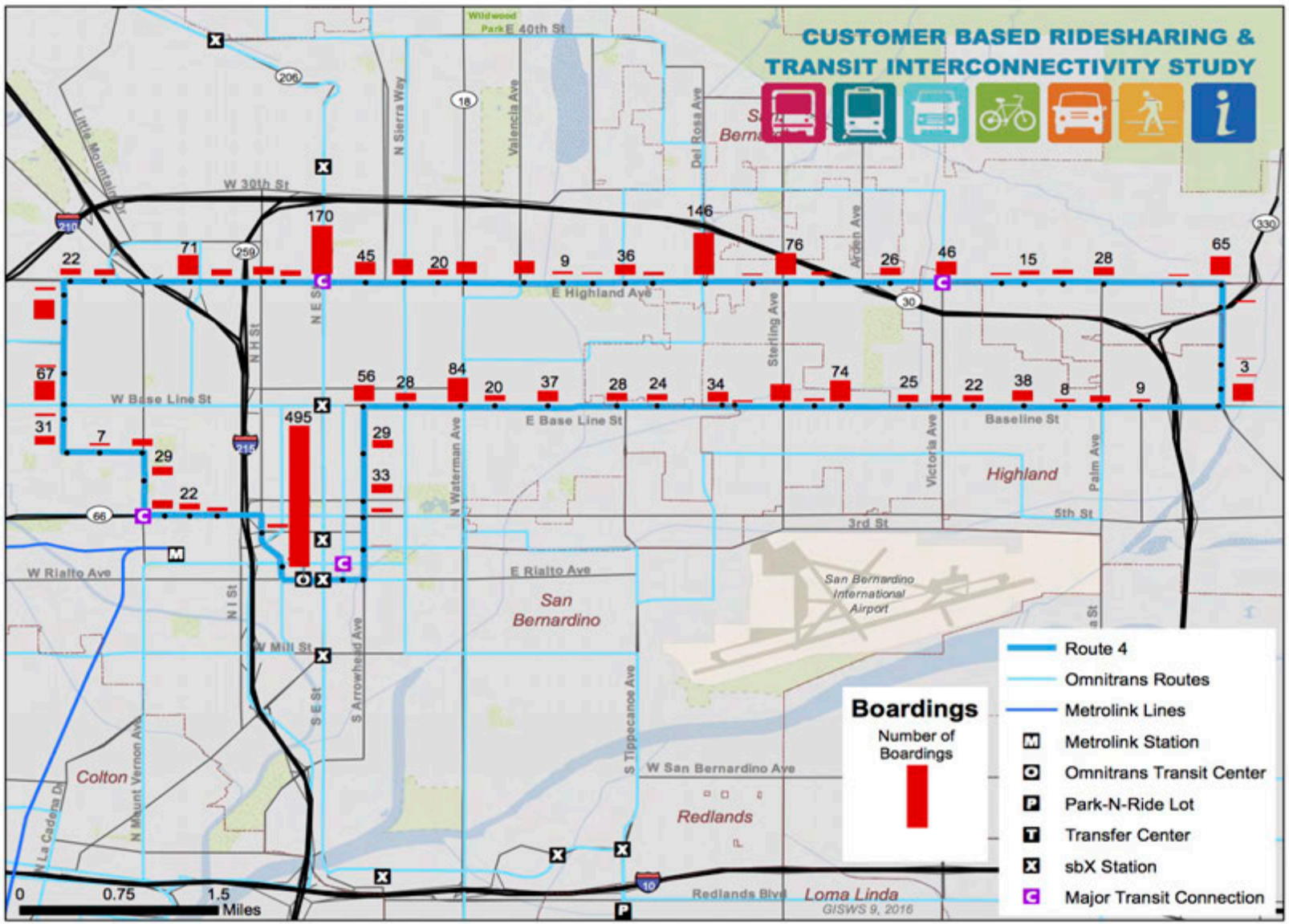
Figures 19 and 20 illustrate average weekday boardings/alightings at each stop along the circulator. Areas where boardings on Route 3 and 4 are highest include Highland Avenue at Del Rosa Avenue where passengers can transfer onto Route 1 or go to commercial areas on that intersection. Route 4 experiences a relatively high number of boardings at the Highland sbX station. The San Bernardino Transit Center also has a high number of boardings as passengers can connect to a number of Omnitrans routes as well as VVTA and Mountain Transit. Both Routes 3 and 4 experience a rate of transfer activity with Route 1.

Figure 19, Route 3 Counter-clockwise Loop



Source: Omnitrans Boarding and Alighting Data for September – October 2015

Figure 20, Omnitrans Route 4 Clockwise Loop



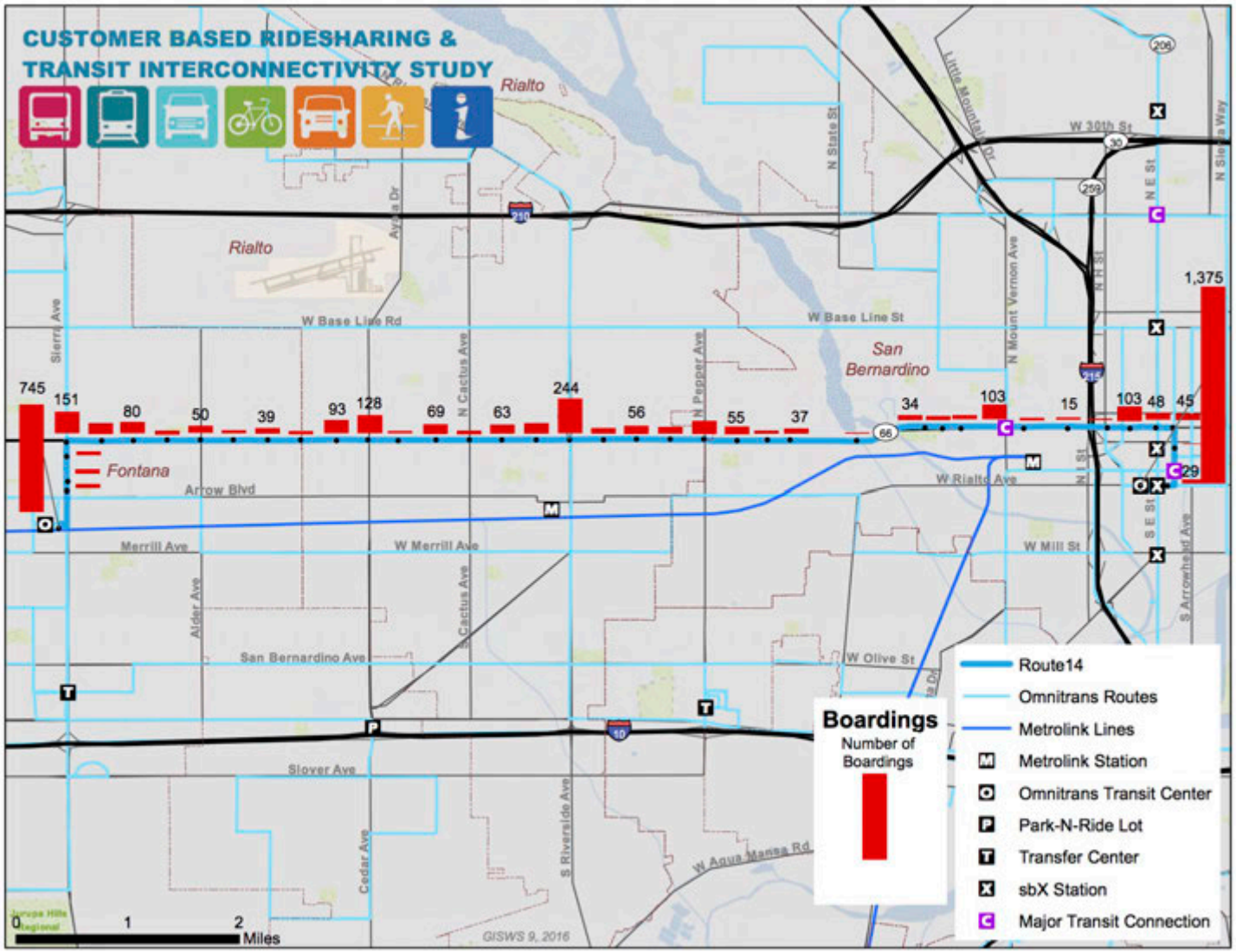
Source: Omnitrans Boarding and Alighting Data for September – October 2015

Route 14 – Fontana – Foothill – San Bernardino

Route 14 is one of the main east-west routes in the Omnitrans network. It provides service between San Bernardino and Fontana via Foothill Boulevard. Major destinations along this corridor include SBTC, Fifth Street Senior Center in San Bernardino, the Omnitrans main office, Fontana City Hall and the Fontana Metrolink Station/Transit Center. Trippers to the Industrial Support Systems (ISS), a nonprofit organization dedicated to providing work programs for persons with disabilities, is provided twice a day. Route 14 provided 990,625 unlinked passenger trips in FY 16, which constituted 7.7 percent of all Omnitrans trips.

Major boardings and alightings occur at the major transit hubs that Route 14 serves (i.e., Fontana Metrolink Station and San Bernardino Transit Center) where passengers can transfer onto all high-quality transit routes within the Omnitrans system. Route 14 also experiences a significant number of boardings at Foothill Boulevard and Riverside Drive in the City of Rialto, as described in Figure 21. Passengers can transfer onto Route 22 to travel north-south. Another area where transfer activity occurs is on 5th Street at Mt. Vernon Avenue where passengers can transfer onto Routes 3 and 4.

Figure 21, Route 14 Weekday Boardings



Source: Omnitrans Boarding and Alighting Data for September – October 2015

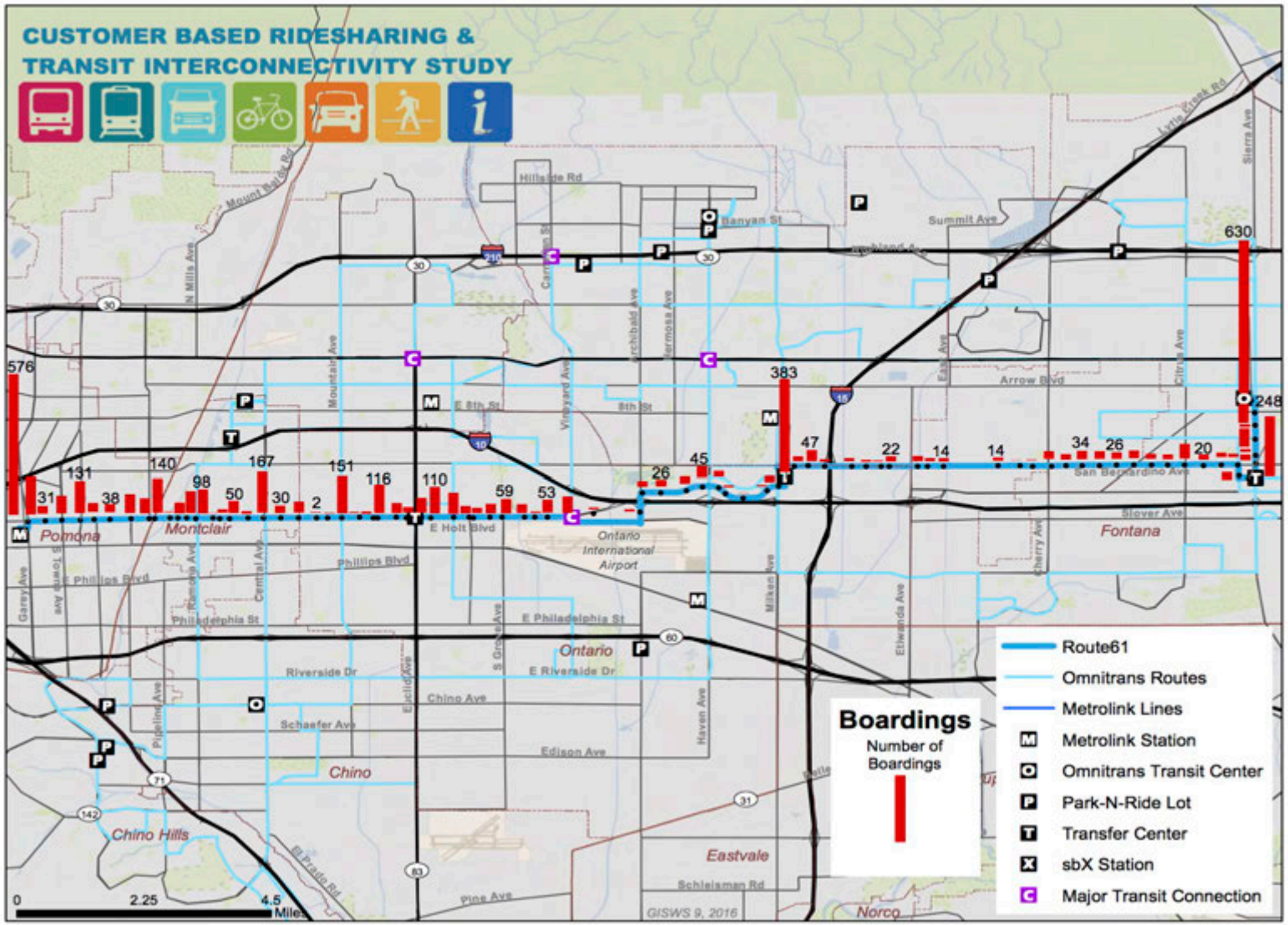
Route 61 – Fontana – Ontario Mills – Pomona

Route 61 is one of the main east-west routes serving the West Valley of the Omnitrans network. This route provides 15-minute service seven days a week and is one of the highest performing routes in the network. Route 61 provided 1,479,150 unlinked passenger trips in FY 16, which is the highest compared to all routes in the system. Route 61 also carried the most trips at 11.5 percent of all trips on Omnitrans system. Parts of lines 61 and 66 will become the West Valley Connector.

Route 61 begins at the Fontana Metrolink Transit Center and serves major destinations in Ontario, Montclair and terminates at the Pomona Transit Center. Major destinations along this corridor include Kaiser Permanente Hospital in Fontana, Fontana High School, West Valley Detention Center, Ontario Mills Mall, Citizens Bank Arena, Ontario International Airport, Ontario Convention Center, Ontario Civic Center, downtown Pomona and the Pomona Transit Center.

Figure 22 illustrates boarding and alighting activity along Route 61. Average boardings are highest at the ends of the route at the Fontana Metrolink Station and the Pomona Transcenter. Boardings are also high at Ontario Mills. Ontario Mills represents a major destination and transfer center, allowing connections with other Omnitrans routes as well as RTA CommuterLink. Major boardings and alightings also occur along Holt Boulevard through the City of Ontario. Transfer activity is highest between other high-frequency routes, such as Route 14 and 66 at the Fontana Metrolink station. In addition, transfer activity is high on Route 85 at Holt Boulevard and Central Avenue. Route 85 provides north-south service between the Chino Transit Center and the Montclair TransCenter.

Figure 22, Route 61 Weekday Boardings



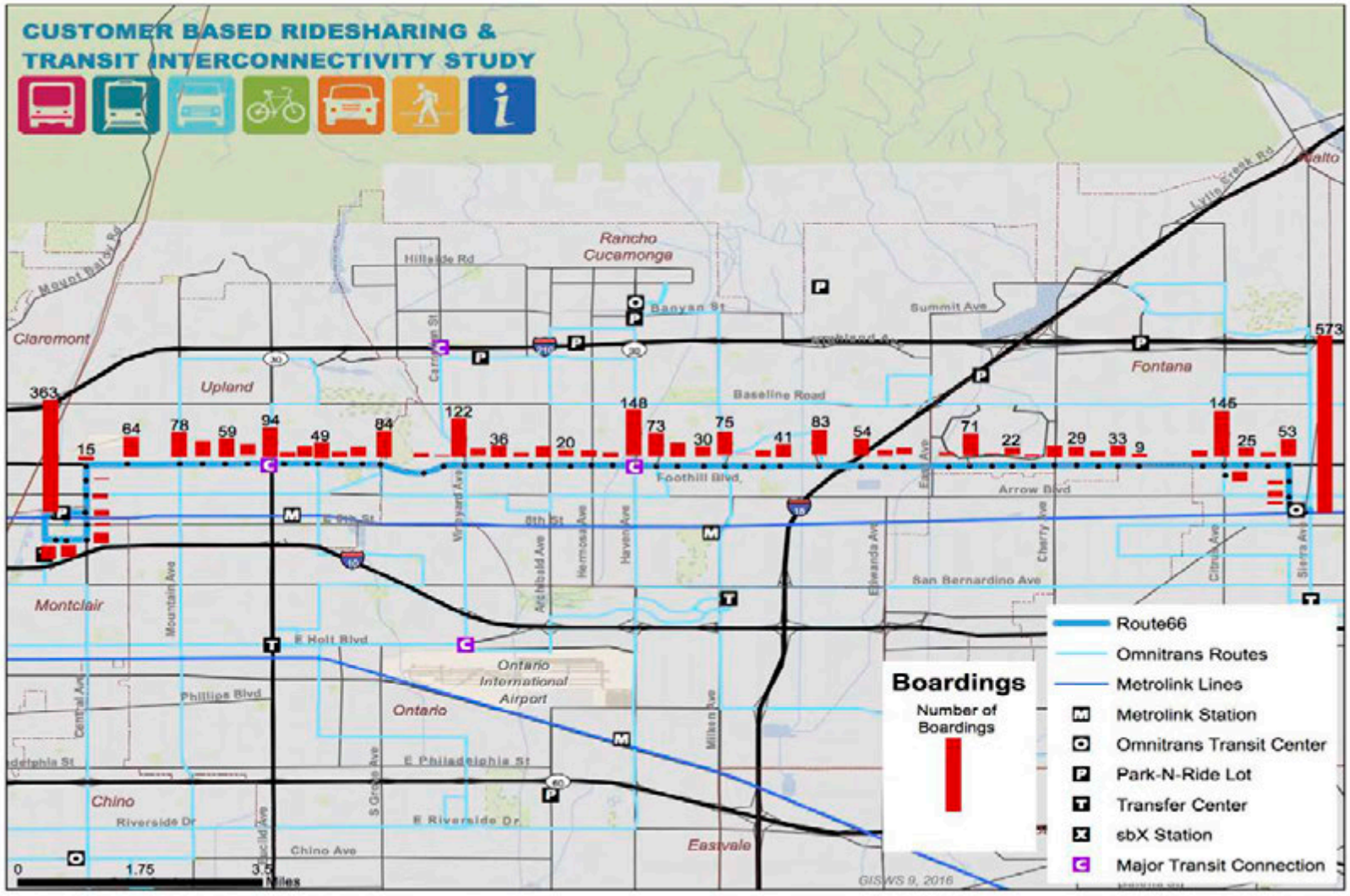
Source: Omnitrans Boarding and Alighting Data for September – October 2015

Route 66 – Fontana – Foothill Boulevard – Montclair

Route 66 provides 15-minute service on Foothill Boulevard in the West Valley area of the Omnitrans network as Route 14 provides service along this corridor in the East Valley. Service begins at the Fontana Metrolink Transit Center and continues west to the Montclair TransCenter. Major destinations along this corridor include Victoria Gardens, Rancho San Antonio Medical Center, Rancho Cucamonga Civic Center, San Antonio Hospital, Upland High School and Montclair Plaza. In FY 16, Route 66 provided 880,987 unlinked passenger trips, which constitutes 6.9 percent of trips taken on Omnitrans.

Figure 23 illustrates boardings and alightings along the Route 66 corridor. Like all routes, the start and end points on the line have the highest boardings and alightings on the corridor. Boardings along Foothill Boulevard in the City of Rancho Cucamonga are relatively high along major retail and commercial centers along the line. One important note is that transfer activity between Route 66 and all north-south connecting routes is very low compared to other east-west routes where transfer activity is high with at least one north-south route. Transfer activity on Route 66 is the highest between other east-west routes, such as Route 14 and Route 61.

Figure 23, Route 66 Weekday Boardings



Source: Omnitrans Boarding and Alighting Data for September – October 2015

4.2 Omnitrans Transit Infrastructure — Transit Centers

Omnitrans transit service operates a hub-and-spoke service design in many parts of the service area. Transit centers and transfer centers function as the hub of the service area where a number of Omnitrans routes meet allowing passengers an opportunity to transfer between routes. It should be noted that transit centers and transfer centers are different. Per Omnitrans Bus Stop Design Guidelines, transit centers are typically "off-street facilities that provide timed transfers between many routes, multiple providers and/or bus-to rail connections." Transfer centers, on the other hand, are "generally on-street locations where buses share the road with vehicular traffic, and where transfers are provided between multiple bus routes, usually not timed." The following provides a short description of the six transit centers and, in the subsequent section, six transfer centers in the San Bernardino Valley in place as of June 2016. Table 19 in the subsequent pages provides information regarding available transit center amenities for the six facilities in the Omnitrans service area.

Chaffey College Transit Center

The Chaffey College Transit Center is an off-street facility located in the eastern portion of the Chaffey College Campus. The facility functions as the northern most transfer location in the West Valley area, providing connections with a number of north-south Omnitrans routes, as noted in Table 13.

Table 13, Chaffey College Transit Center

Transit Agency	Route	Mode	Destinations
Omnitrans	67	Local Bus	Chaffey College – Fontana via Baseline Avenue
Omnitrans	80	Local Bus	Ontario – Chaffey College via Vineyard Avenue
Omnitrans	81	Local Bus	Chino – Chaffey College via Haven Avenue
Omnitrans	85	Local Bus	Chino – Montclair – Chaffey College

Chino Transit Center

The Chino Transit Center is the only on-street facility identified as a transit center where vehicles are allowed to travel through the facility. The facility is located near the Chino Civic Center on 6th Street at Chino Avenue. Several Omnitrans routes and OmniGo stop at the facility, as noted in Table 14. Parking is available near the transit center, providing an opportunity for transit users to park at this facility.

Table 14, Chino Transit Center

Transit Agency	Route	Mode	Destinations
Omnitrans	81	Local Bus	Chino – Chaffey College via Haven Avenue
Omnitrans	83	Local Bus	Chino – Upland via Euclid Boulevard
Omnitrans	84	Local Bus	Chino – Upland via Mountain Avenue
Omnitrans	85	Local Bus	Chino – Montclair – Chaffey College
Omnitrans	88	Local Bus	Chino Hills – Montclair via Ramona Avenue
Omnitrans	OmniGo 365	Fixed-route community circulator	Chino Hills

Fontana Metrolink Transit Center

The Fontana Metrolink Transit Center is a major inter-modal transit hub in the Omnitrans service area. This facility (Table 15) can be regarded as a key link between local routes serving both the east and west valleys as high-frequency east-west routes (e.g., Route 14 and Route 66) connect at this location. Metrolink commuter rail also stops at this location, providing transit users the opportunity to travel between bus and rail service. Parking is available at this location.

Table 15, Fontana Metrolink Transit Center

Transit Agency	Route	Mode	Destinations
Omnitrans	10	Local Bus	Fontana – San Bernardino via Baseline Avenue
Omnitrans	14	Local Bus	Fontana – San Bernardino via Foothill Boulevard
Omnitrans	15	Local Bus	Fontana – San Bernardino – Redlands
Omnitrans	19	Local Bus	Fontana – Colton – Redlands – Yucaipa
Omnitrans	20	Local Bus	Fontana Metrolink – Fontana Kaiser Hospital via Hemlock Avenue
Omnitrans	61	Local Bus	Fontana – Ontario Mills – Pomona Transit Center
Omnitrans	66	Local Bus	Fontana – Montclair via Foothill Boulevard
Omnitrans	67	Local Bus	Chaffey College – Fontana via Baseline Avenue
Omnitrans	82	Local Bus	Rancho Cucamonga – Fontana – Sierra Lakes
VVTA	BV Link	Express Bus	Victorville – San Bernardino – Colton – Fontana

Montclair TransCenter

The Montclair TransCenter is an off-street transit facility that provides transfer connections between Omnitrans, Foothill Transit, the Riverside Transit Agency and Metrolink commuter rail service (Table 16). Free parking is available at this facility. Other amenities near the facility include the Pacific Electric Bike Trail, which is just north of the transit center traveling east-west through the city.

Table 16, Montclair Transit Center

Transit Agency	Route	Mode	Destinations
Omnitrans	66	Local Bus	Fontana – Montclair via Foothill Boulevard
Omnitrans	85	Local Bus	Chino – Montclair – Chaffey College
Omnitrans	88	Local Bus	Chino Hills – Montclair via Ramona Avenue
Omnitrans	290	Freeway Express Bus	San Bernardino – Arrowhead Regional Medical Center – Ontario Mills – Montclair via I-10
Foothill Transit	187	Local Bus	Montclair – Claremont – Glendora - Pasadena
Foothill Transit	197	Local Bus	Pomona – Claremont
Foothill Transit	480	Local Bus	Montclair – Pomona – West Covina via Mission Blvd.
Foothill Transit	492	Local Bus	Montclair – Arcadia – El Monte via Arrow Highway
Foothill Transit	690	Freeway Express	Montclair – Pasadena via I-210 Corridor
Foothill Transit	699	Freeway Express	Montclair – Fairplex Park and Ride – Cal State L.A. – USC Medical Center – Downtown Los Angeles
Foothill Transit	Silver Streak	Freeway Express	Montclair – Pomona – West Covina – El Monte – Downtown Los Angeles
RTA	204	Commuter Link	Riverside – Country Village – Ontario Mills – Montclair TransCenter
Metrolink	San Bernardino Line	Commuter Rail	San Bernardino – Los Angeles (see Metrolink section)

San Bernardino Transit Center

The San Bernardino Transit Center (SBTC) is the major transfer point in the eastern portion of the San Bernardino Valley. Currently, Mountain Transit, Victor Valley Transit Authority (VVTA) and Pass Transit connect with Omnitrans routes, as noted in Table 17. A station for Omnitrans' bus rapid transit route sbX is located east of the transit center on E Street. Currently, SBCTA is constructing a one-mile rail extension from the San Bernardino Santa Fe Depot so that Metrolink commuter rail can provide service in the near future. This rail extension is the first step towards construction of Redlands Rail, which will provide passenger rail service between the cities of San Bernardino and Redlands.

Table 17, San Bernardino Transit Center

Transit Agency	Route	Mode	Destinations
Omnitrans	1	Local Bus	ARMC – San Bernardino
Omnitrans	2	Local Bus	San Bernardino – Loma Linda
Omnitrans	3/4	Local Bus	Highland – San Bernardino
Omnitrans	7	Local Bus	CSUSB – San Bernardino via Sierra Way
Omnitrans	8	Local Bus	San Bernardino – Mentone – Crafton Hills College
Omnitrans	10	Local Bus	Fontana – San Bernardino via Baseline Avenue
Omnitrans	11	Local Bus	San Bernardino – Muscoy - CSUSB
Omnitrans	14	Local Bus	Fontana – San Bernardino via Foothill Boulevard
Omnitrans	15	Local Bus	Fontana – San Bernardino – Redlands
Omnitrans	215	Freeway Express Bus	San Bernardino – Riverside via I-215
Omnitrans	290	Freeway Express Bus	San Bernardino – Arrowhead Regional Medical Center – Ontario Mills – Montclair via I-10
Omnitrans	sbX	BRT	CSUSB – VA Hospital
Mountain Transit	Big Bear off the Mountain	Express Bus	Big Bear Valley, Running Springs – San Bernardino
Mountain Transit	RIM off the Mountain	Express Bus	Lake Arrowhead – Crestline – San Bernardino
VVTA	BV Link	Express Bus	Victorville – San Bernardino – Colton – Fontana

Yucaipa Transit Center

The Yucaipa Transit Center (Table 18) is the eastern most transfer facility in the Omnitrans network. This off-street facility is located next to the Yucaipa Civic Center. Omnitrans service in the City of Yucaipa is provided through several community circulators known as OmniGo. Currently, only one fixed-route provides inter-city service in the city. Access, Omnitrans's ADA service, has a dedicated service stop at this facility.

Table 18, Yucaipa Transit Center

Transit Agency	Route	Mode	Destinations
Omnitrans	19	Local Bus	Fontana – Colton – Redlands - Yucaipa
Omnitrans	OmniGo 308	Fixed-route community circulator	Counter-clockwise loop through South Yucaipa
Omnitrans	OmniGo 309	Fixed-route community circulator	Clockwise loop through South Yucaipa
Omnitrans	OmniGo 310	Fixed-route community circulator	Clockwise loop through North Yucaipa

Table 19, Omnitrans Transit Center Amenities Checklist

Transit Center Amenities	Chaffey College Transit Center	Chino Transit Center	Fontana Metrolink Transit Center	Montclair Transit Center	San Bernardino Transit Center	Yucaipa Transit Center
Multi-agency/modal facility	No	No	Yes	Yes	Yes	No
Shelters/Seating Area	No	Yes	Yes	Yes	Yes	Yes
Signage	Pole and Sign	Mounted on Shelters	Pole and Sign	Pole and Sign	Pole and Sign	Mounted on Shelters
Water Fountains	No	Yes	Yes	No	Yes	Yes
Public Restrooms	No	No	No	Portable Restroom	Yes	Yes
Vending Machines	Yes	No	No	No	No	No
Ticket Purchasing Machines	No	No	No	No	Yes	No
Real-time Messaging Information	No	No	No	No	Yes	No
Newspaper Racks	Yes	No	Yes	No	No	No
Bicycle racks/lockers	Yes	No	No	Yes	Yes	Yes
Omnitrans Personal	No	No	No	No	Yes	No
Security Guards	Campus Security	No	Yes	Yes	Yes	No
Security Cameras	Yes	Yes	No	No	Yes	Yes
Emergency Pylon	Yes	No	No	No	Yes	No
Marked Pedestrian Crossings	Yes	Yes	Yes	Yes	Yes	Yes
Parking	Student Parking	Yes	Yes	Yes	No	Yes
Electric Vehicle Charging Stations	No	No	No	No	No	No

4.3 Major Transfer Points — Inter-Agency Connections and Locations

Transfer centers, per Omnitrans's *Transit Design Guidelines*, are defined as on-street facilities "where buses can share the road with vehicular traffic," (pg. 181). The definition continues by stating that transfers between multiple bus routes are available but are not usually timed. These facilities are located near major activity centers, such as retail centers, hospitals and schools. The following facilities are listed as transfer centers in Omnitrans's current Bus Book.

Arrowhead Regional Medical Center (ARMC) Transfer Center

Located in the City of Colton, ARMC (Table 20) functions as a major destination for many living in the Inland Empire. The hospital is a university-affiliated teaching hospital operated by San Bernardino County. The hospital is designated as a Level II trauma center, providing comprehensive trauma care 24-hours a day. The hospital provides 456 beds and experiences more than 116,000 patient visits a year. Due to the size of the facility, a number of Omnitrans routes provide service to this location.

Table 20, Arrowhead Regional Medical Center Transfer Center

Transit Agency	Route	Mode	Destinations
Omnitrans	1	Local Bus	ARMC – San Bernardino
Omnitrans	19	Local Bus	Fontana – Colton – Redlands - Yucaipa
Omnitrans	22	Local Bus	Rialto – ARMC
Omnitrans	290	Freeway Express Bus	San Bernardino – Arrowhead Regional Medical Center – Ontario Mills – Montclair via I-10
VVTA	BV Link	Express Bus	Victorville – San Bernardino – Colton – Fontana

Montclair Plaza Transfer Center

The Montclair Plaza Transfer Center (Table 21) is an on-street facility located at the western end of the Montclair Plaza at the intersection of Monte Vista Avenue at San Jose Street. Montclair Plaza is one of the few indoor shopping malls with several anchor stores remaining in San Bernardino Valley. This transfer location serves as a major stop for several local Omnitrans routes in the southern portion of the city.

Table 21, Montclair Plaza Transfer Center

Transit Agency	Route	Mode	Destinations
Omnitrans	66	Local Bus	Fontana – Montclair via Foothill Boulevard
Omnitrans	85	Local Bus	Chino – Montclair – Chaffey College
Omnitrans	88	Local Bus	Chino Hills – Montclair via Ramona Avenue

Ontario Civic Center Transfer Center

The Ontario Civic Center Transfer Center is an on-street facility extending east-west along Holt Boulevard between Euclid Boulevard and Sultana Avenue. Stops on the north side of Holt Boulevard are next to a multi-family housing development. Route 61 travels along Holt Boulevard, allowing passengers to connect to several north-south routes at this location. Table 22 provides additional details.

Table 22, Ontario Civic Center Transfer Center

Transit Agency	Route	Mode	Destinations
Omnitrans	61	Local Bus	Fontana – Ontario Mills – Pomona Transit Center
Omnitrans	83	Local Bus	Chino – Upland via Euclid Boulevard
Omnitrans	86	Local Bus	South Ontario – Upland via Campus Drive

Ontario Mills Transfer Center

The Ontario Mills Transfer Center (Table 23 is located in east Ontario near the I-10 and I-15 interstate highways. Ontario Mills is one of the largest indoor retail malls in the Omnitrans service area. The transfer center connects several Omnitrans routes as well as an RTA route.

Table 23, Ontario Mills Transfer Center

Transit Agency	Route	Mode	Destinations
Omnitrans	61	Local Bus	Fontana – Ontario Mills – Pomona Transit Center
Omnitrans	81	Local Bus	Chino – Chaffey College via Haven Avenue
Omnitrans	82	Local Bus	Rancho Cucamonga – Fontana – Sierra Lakes
Omnitrans	290	Freeway Express Bus	San Bernardino – Arrowhead Regional Medical Center – Ontario Mills – Montclair via I-10
RTA	204	Commuter Link	Riverside – Country Village – Ontario Mills – Montclair TransCenter

Redlands Mall Transfer Center

The Redlands Mall Transfer Center (Table 24) is located on Redlands Boulevard at Orange Avenue just north of the now vacant Redlands Mall (with the exception of a CVS Pharmacy at the site). The city is currently in discussion with the new property owner with the intent of building a new mixed-use development at this location. Several Omnitrans routes stop at the location with routes traveling through numerous areas in East Valley area.

Table 24, Redlands Mall Transfer Center

Transit Agency	Route	Mode	Destinations
Omnitrans	8	Local Bus	San Bernardino – Mentone – Crafton Hills College
Omnitrans	15	Local Bus	Fontana – San Bernardino – Redlands
Omnitrans	19	Local Bus	Fontana – Colton – Redlands - Yucaipa

South Fontana Transfer Center

The South Fontana Transfer Center (Table 25) is located at the intersection of Sierra Avenue and Marygold Avenue in the City of Fontana. This transfer location is next to the Kaiser Permanente, Fontana Medical Center. The facility provides both emergency and urgent care services for Kaiser Permanente members in San Bernardino Valley. Because it is a major destination, several Omnitrans route and one VVTA route stop at this location. The Fontana Metrolink Station is located approximately two miles north of this transfer center.

Table 25, South Fontana Transfer Center

Transit Agency	Route	Mode	Destinations
Omnitrans	19	Local Bus	Fontana – Colton – Redlands - Yucaipa
Omnitrans	20	Local Bus	Fontana Metrolink – Fontana Kaiser Hospital via Hemlock Avenue
Omnitrans	29	Local Bus	Bloomington – Fontana Kaiser Hospital via Valley Boulevard
Omnitrans	61	Local Bus	Fontana – Ontario Mills – Pomona Transit Center
Omnitrans	82	Local Bus	Rancho Cucamonga – Fontana – Sierra Lakes
VVTA	BV Link	Express Bus	Victorville – San Bernardino – Colton – Fontana

Bicycle Capacity

While most of Omnitrans' vehicles can hold two bicycles, there are some buses with capacity for three bikes. Also, sbX rapid transit vehicles are the only buses that allow bicycles on board, with the exception of folding bicycles, which can be brought on board any vehicle, but must be kept out of the aisle.

Omnitrans does track bicycle boardings on TransTrack. Omnitrans had average daily bike boardings of 1,133 for 2015. Between 2010 and 2015 bike boardings increased 4 percent, from 286,086 to 352,319.

4.4 Other Transit Services

Victor Valley Transit Authority (VVTA)

VVTA provides local fixed routes, local deviated routes and county routes that are longer in distance and serve unincorporated areas surrounding the fixed-route service area. VVTA operates 23 fixed routes that include county and deviated routes, one commuter route and one express route. VVTA is also the ADA paratransit operator for the Victor Valley as well as the Consolidated Transportation Service Agency (CTSA) and vanpool administrator for its region. VVTA delivers more than 2.7 million trips across its various service modes.

The B-V Link service is a commuter route that connects the city of Barstow with Victorville and Apple Valley and then continues "down-the-hill" into the San Bernardino Valley to medical centers and government buildings. B-V Link service operates on weekdays and Saturdays with hours that vary depending on the origin and destination.

Bicycle Capacity

All of VVTA's fixed-route buses that are 40-foot or under have two-position bike racks. VVTA does not have any bike facility policies.

Mountain Transit

Mountain Transit is the public transit provider for the mountain areas between Big Bear and Crestline. Mountain Transit currently operates seven fixed routes throughout the mountain communities and dial-a-ride service to seniors and persons with disabilities within ¾ mile of local fixed routes.

Connections from the mountain communities to the San Bernardino Valley are possible on two Off-The-Mountain (OTM) routes: Crestline OTM, serving the west side of the mountains; and Big Bear OTM for the east side of the mountains. The Crestline OTM offers four runs down to the valley and four runs back to the mountains beginning at 5:25 a.m., arriving at the first of many San Bernardino locations by 6:00 a.m. The Big Bear OTM begins at 6:30 a.m. and arrives at its first San Bernardino stop at 7:30 a.m. In total, three trips are made in each direction each day.

Bicycle Capacity

All Mountain Transit revenue vehicles have the capacity for two bicycles. While not a policy, Mountain Transit plans include bike facilities as they develop a transfer location in Big Bear. Mountain Transit does not track bike boardings.

Agencies Providing Inter-County Bus Service

The following describes neighboring transit operators that provide inter-county bus service into the San Bernardino Valley. These provide important connections to major destinations in neighboring Los Angeles and Riverside counties. Connections are located throughout the Omnitrans service area.

Foothill Transit

Foothill Transit is the second largest municipal transit provider in Los Angeles County delivering fixed-route service to the residents of the San Gabriel and Pomona valleys. Foothill provides approximately 14 million annual trips with a fleet of 330 buses while operating 36 local and express lines, covering over 300 square miles. Service is generally in operation between 5:00 a.m. and 11:00 p.m.

Transfer opportunities exist between Foothill routes as well as to board LA Metro, Metro Rail, Omnitrans and OCTA buses. There are many transfer opportunities between Foothill Transit and Omnitrans at the shared Montclair TransCenter, as well as Metrolink and RTA.

Riverside Transit Agency

The Riverside Transit Agency (RTA) is Western Riverside County's multimodal transportation provider. The RTA service area spans approximately 2,500 square miles with a population of almost 1.75 million people, of which 1.3 million live within ¾ miles of an RTA fixed route. This is accomplished with a total fleet of 482 vehicles. RTA also provides curb-to-curb, origin-to-destination service for persons over the age of 65 and persons with disabilities to travel to locations that are within ¾ of a mile from an existing fixed-route, excluding commuter service.

RTA operates eight CommuterLink routes, which are long-distance routes, operated during peak service hours and provide both inter- and intra-county connections. They connect commuters directly with major employment centers or indirectly through connections at major multimodal bus and rail hubs. RTA connects with Omnitrans buses in various locations between the two counties including Loma Linda medical facilities and the Montclair TransCenter.

Pass Transit

The Riverside County cities of Banning and Beaumont lie on the eastern edge of Western Riverside County just east of Yucaipa in what is called "The Pass" area. The two cities fund public transit systems for their respective areas under the banner of Pass Transit and deliver more than 350,000 annual trips.

Pass Transit operates the CommuterLink 120 route that begins in the city of Beaumont and travels to the San Bernardino Transit Center, San Bernardino Metrolink Station and the Loma Linda V/A Hospital. There are multiple transfer opportunities at these locations with San Bernardino County transit providers.

4.4 Metrolink

Metrolink is a provider of commuter rail service for five counties in Southern California. Three commuter rail lines travel through the San Bernardino Valley: 1) the San Bernardino Line, 2) the Inland Empire/Orange County Line (IEOC) and 3) the Riverside Line. Both the San Bernardino Line and the Riverside Line travel east-west, serving commuters traveling westbound into Los Angeles County for work or school. The IEOC travels southerly to Orange County, providing commute trips to employment opportunities to the south.

Weekend service is provided on San Bernardino and IEOC lines with a promotional day pass fare of $10. The $10 Weekend Day Pass allows passengers to travel anywhere on Metrolink lines and allows free transfers on connecting transit services.

Metrolink reporting to the National Transit Database (NTD) recorded 440,984,546 annual passenger miles and 13,429,362 unlinked passenger trips for 2014. Annual passenger miles and unlinked passenger trips define the average trip length per passenger. Because commuter rail service typically provides peak period service to major employment centers, average passenger length can be longer in sprawling urban areas, such as Southern California. Average trip length for Metrolink is 32.8 miles.

Figure 24 and Figure 25 illustrates average weekday boardings by Metrolink stations in the San Bernardino Valley. It is important to note that the East Ontario station is located on the Riverside Line while the remaining six stations are located along the San Bernardino Line. Two Metrolink lines', the San Bernardino and Inland Empire/Orange County, average weekday boardings is the highest in Rancho Cucamonga followed by the station in the City of San Bernardino.

Figure 24, Route 66 Weekday Boardings

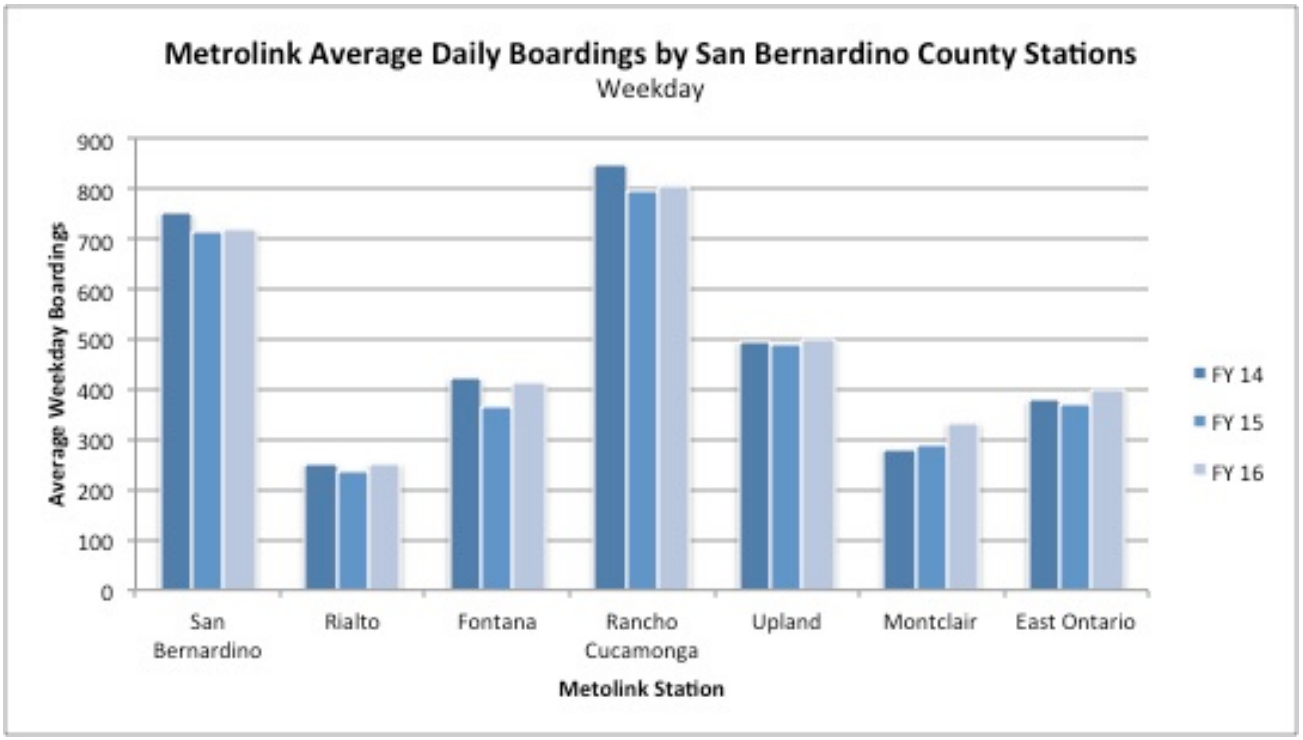
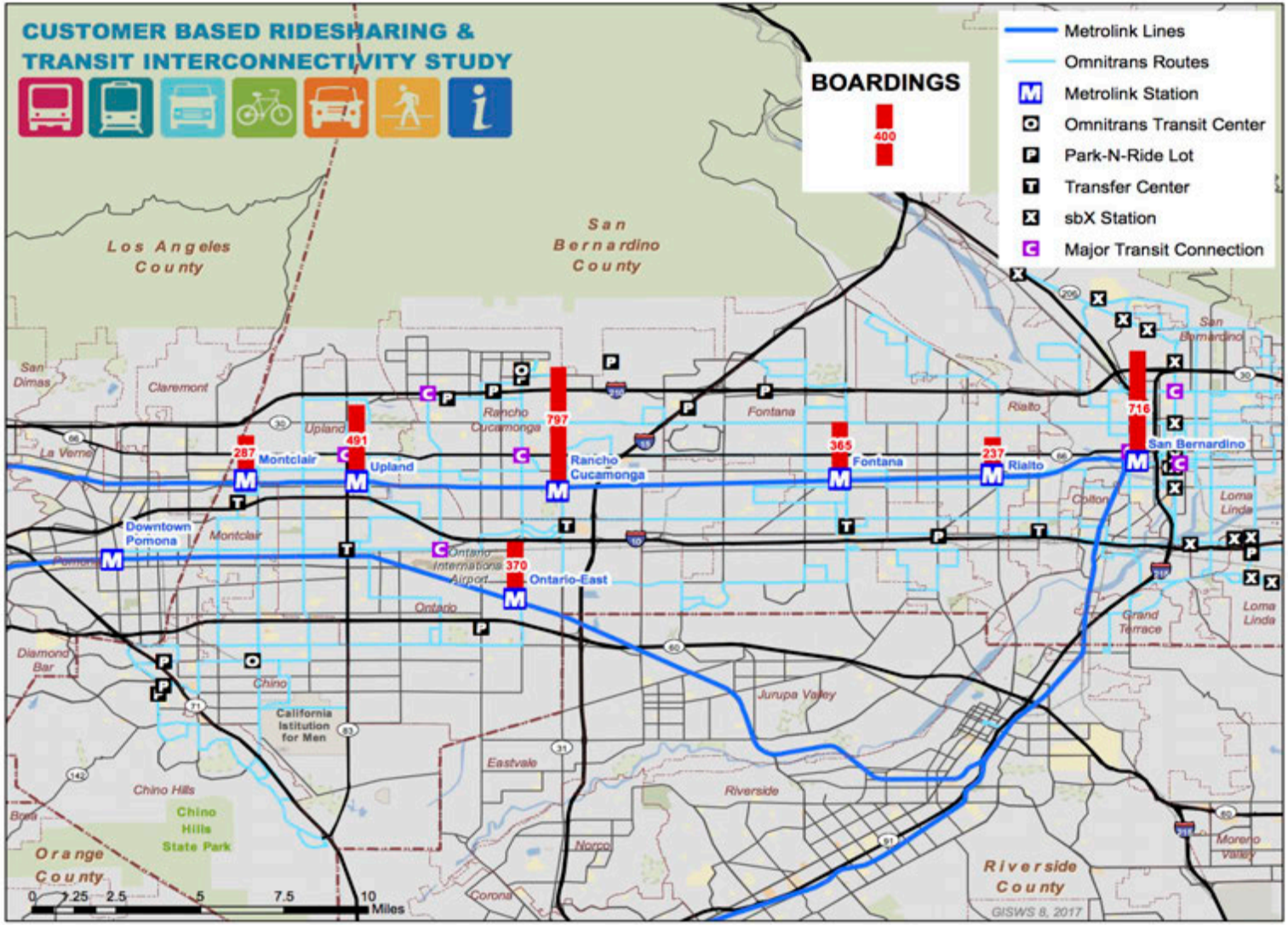


Figure 25, Metrolink Average Weekday Boardings



Source: Metrolink FY 15 Boardings by Station

Metrolink Commuter Rail Lines

Three of the seven Metrolink Commuter Rail lines operate in the San Bernardino Valley. The San Bernardino Line is the primary line that operates in San Bernardino County with six stations beginning in the City of San Bernardino traveling west to Los Angeles County. The Inland Empire/Orange County Line starts service in the City of San Bernardino and travels southwest into Orange County. The Riverside Line stops in the City of Ontario near the Ontario International Airport. The following section provides a description of each line, station location, connecting transit lines, parking and bicycle facilities. Subsequently, Table 29 provides additional information on the amenities at each of the Metrolink stations in the San Bernardino Valley.

San Bernardino Metrolink Line

The San Bernardino Line is an east-west commuter rail line that provides service to six Metrolink stations in the San Bernardino Valley. This line extends for 56.5 miles between the cities of San Bernardino and Los Angeles, providing 19 round-trips during the weekday and 10 round-trips on Saturday and seven round-trips on Sunday. The San Bernardino Line is one of the most productive lines in the Metrolink system with almost 27 percent of the annual ridership in FY 2014. Table 26 details all Metrolink Stations along this line.

Table 26, Metrolink Stations Along the San Bernardino Line

Station Location	Connecting Transit Routes	Parking	Bicycle Facilities
San Bernardino	Omnitrans 1, BV-Link, Mountain Transit RIM Off the Mountain and Big Bear Off the Mountain; Pass Transit Commuter Link 120	Free parking	None indicated on Metrolink website
Rialto	Omnitrans 22	Free parking	None indicated on Metrolink website
Fontana	Omnitrans 10, 14, 15, 19, 20, 61, 66, 67, 82, BV-Link	Free parking	None indicated on Metrolink website
Rancho Cucamonga	Omnitrans 82	Permit parking	Bicycle lockers
Upland	Omnitrans 83 and 86 (does not stop at Metrolink Station)	Free parking	Bicycle rack and lockers
Montclair	Omnitrans 66, 85, 88, 290, FT 187, FT 197, FT 480, FT 492, FT 690, FT 699, FT Silver Streak, RTA 204	Free parking	None indicated on website
Claremont	FT 187, 197, 292, 480, 492, 855, Amtrak ThruWay Bus	Free parking	Claremont Bike Station Bicycle racks
Pomona (North)	Cal Poly Pomona Metrolink Connect Shuttle	Free parking	None indicated on website
Covina	City of Azusa Shuttle, City of Glendora Shuttle, FT A281	Permit parking	Covina Bike Station
Baldwin Park	City of Baldwin Park Shuttle, City of West Covina Shuttle, FT 178, 274	Permit parking	None indicated on website
El Monte	City of El Monte Shuttle and Trolley, Metro 76, 268	Free parking	Bicycle racks
Cal State LA	FT Silver Streak, 481, 493, 497, 498, 499, 699, Metro Silver Line, 71, 256, 485, 487, 489, 665, County of LA Employee Shuttle, Monterey Park Spirit 5, Alhambra Community Transit, County of Los Angeles Children's Court Shuttle, East LA Shuttle	No Metrolink parking	None indicated on website
Los Angeles Union Station	Metro (28, 30, 330, 33, 40, 45, 68, 70, 71, 76, 78, 79, 378, 81, 83, 90, 91, 94, 96, 442, 485, 487, 489, 704, 728, 733, 745, 770, 794 Silver Line, Gold Line, Purple Line, Red Line), LAX FlyAway, Amtrak, Antelope Valley Transit Authority 785, Citadel Outlets Express, City of Santa Clarita Transit 794, Foothill Transit Silver Streak, 481, 483, 495, 497, 498, 499, 699), LADOT (A, B, D, BH, LH, Commuter Express 431, 534, Dodger Stadium Express), Megabus, OCTA 701, Mt. St. Mary's College Shuttle, Torrance Transit 4, USC Shuttles	Permit parking	Bike racks

Note: Shaded cells represent station stops within San Bernardino County.

Metrolink Riverside Line

The Riverside Line provides weekday service along the Union Pacific (UP) Railroad alignment with one stop in San Bernardino County, East Ontario. The Riverside Line extends for 59.1 miles between the City of Riverside and Los Angeles Union Station. Service is only provided on weekdays with a total of six round-trips (five morning and one afternoon inbound into Los Angeles and one midday and five afternoon/evening trains outbound to Riverside) traveling between both cities. Along this alignment is the East Ontario Metrolink Station located on Mission Boulevard, west of Haven Avenue in the City of Ontario. The station is approximately two miles away from the Ontario International Airport. The nearest Omnitrans bus stop is on Haven Avenue on Route 81 that travels between the Chino Transit Center in the west and the Chaffey College Transit Center in the east. Table 27 details all Metrolink Stations along this line.

Table 27, Metrolink Stations Along the Riverside Line

Station Location	Connecting Transit Routes	Parking	Bicycle Facilities
Riverside - Downtown	Omnitrans Rt 215, RTA 1, 16, 208, 210, 212, SunLine 220, Amtrak	Free parking	None indicated on website
Pedley	RTA	Free parking	Bicycle lockers
East Ontario	None	Free parking	Free parking
Downtown Pomona	Omnitrans 61, FT Silver Streak, 195, 197, 286, 291, 292, 480, 482, 855	Permit parking	None indicated on website
Industry	FT 482, 493, 495	Free parking	None indicated on website
Montebello	Montebello Bus Lines 70, Montebello Metrolink shuttle, Metro (18, 66)	Free parking	None indicated on website
Los Angeles Union Station	Metro (28, 30, 330, 33, 40, 45, 68, 70, 71, 76, 78, 79, 378, 81, 83, 90, 91, 94, 96, 442, 485, 487, 489, 704, 728, 733, 745, 770, 794 Silver Line, Gold Line, Purple Line, Red Line), LAX FlyAway, Amtrak, Antelope Valley Transit Authority 785, Citadel Outlets Express, City of Santa Clarita Transit 794, Foothill Transit Silver Streak, 481, 483, 495, 497, 498, 499, 699), LADOT (A, B, D, BH, LH, Commuter Express 431, 534, Dodger Stadium Express), Megabus, OCTA 701, Mt. St. Mary's College Shuttle, Torrance Transit 4, USC Shuttles	Permit parking	Bike racks

Inland Empire/Orange County (IEOC) Metrolink Line

The IEOC Line also provides commuter rail service to Orange County for those living in the San Bernardino Valley with a single station stop at the San Bernardino Santa Fe Depot. The IEOC line extends for 100.1 miles between the cities of San Bernardino and San Juan Capistrano with one trip a weekday traveling to Oceanside. The Santa Fe Depot Station is the terminus for four weekday outbound trips from San Bernardino and four inbound trips from Orange County. In addition, two morning outbound trips and two evening inbound trips are provided on the weekend. Table 28 details all Metrolink Stations along this line.

Table 28, Metrolink Stations Along the Inland Empire/Orange County Line

Metrolink Stations — IEOC Line			
Station Location	**Connecting Transit Routes**	**Parking**	**Bicycle Facilities**
San Bernardino	1, BV-Link, Mountain Transit RIM Off the Mountain and Big Bear Off the Mountain, Pass Transit	Free parking	None indicated on Metrolink website
Riverside-Downtown	Omnitrans Rt 215, RTA 1, 16, 208, 210, 212, SunLine 220, Amtrak	Free parking	None indicated on website
Riverside-La Sierra	RTA 15, OCTA 794	Free parking	None indicated on website
North Main Corona	RTA 1, 3, 206, 216, Corona Cruiser Blue Line, Red Line	Free parking	None indicated on website
West Corona	RTA 1, Corona Cruiser Red Line	Free parking	Bicycle lockers
Anaheim Canyon	OCTA 24, 38, 71, 167, 411	Free parking	Bicycle racks
Orange	OCTA 54, 56, 59, 453, 454	Free parking	Bicycle racks
Santa Ana	OCTA 59, 83, 560, 206, 462, 463, 464, Amtrak	Free parking	Bicycle lockers
Tustin	OCTA 70, 90, 472, 473, City of Irvine iShuttle 400A, 401B	Free parking	None indicated on website
Irvine	OCTA 86, 188, 206, 211, 758, 480, iShuttle 402C, 403D, Amtrak	Free parking	Bicycle racks
Laguna Niguel/Mission Viejo (only stops three times on weekdays)	OCTA 82, 85, 91, 490	Free parking	None indicated on website
San Juan Capistrano (only stops twice on weekdays)	OCTA 91, 191, Amtrak	Paid parking	None indicated on website
San Clemente Pier (does not stop on weekdays. Only stops on weekends)	OCTA 191	Paid parking	None indicated on website
Oceanside (only stops twice on weekdays)	North County Transit District Bus (101, 302, 303, 313, 318, 392, 395) and Rail service (Coaster and Sprinter), RTA 202, Amtrak, Greyhound	Free parking	Bicycle racks and lockers

Note: Shaded cells represent station stops within San Bernardino County.

Table 29, Metrolink Station Amenities Checklist

Station Amenities	Montclair	Upland	Rancho Cucamonga	Fontana	Rialto	San Bernardino (Santa Fe Depot)	East Ontario (Riverside Line)
Multi-agency/modal facility	Yes	No	Yes	Yes	Yes	Yes	No
Shelters/Seating Area	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Signage	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Water Fountains	No	Yes	Yes	Yes	Yes	Yes	No
Public Restrooms	Not near train platform	No	No	Portable Restroom	Yes	Inside Depot	Portable Restroom
Vending Machines	No	No	No	No	No	No	No
Ticket Purchasing Machines	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Real-time Messaging Information	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Newspaper Racks	No	No	No	Yes	Yes	No	Yes
Bicycle racks/lockers	Yes	Yes	Yes	No	Yes	Yes	Yes
Metrolink Call Box	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Security Guards	Yes	No	No	Yes	Yes	Yes	Yes
Security Cameras	Yes	No	Yes	Yes	Yes	Yes	Yes
Emergency Pylon	No	No	No	No	No	No	No
Marked Pedestrian Crossings	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Parking	Yes	Yes	Yes (Metered)	Yes	Yes	Yes	Yes
Electric Vehicle Charging Stations	No	No	Yes	No	Yes	No	No

Bus and Rail Interconnectivity

Opportunities to connect between transit agencies (i.e., bus to bus and bus to rail) is the primary definition of interconnectivity. Those living in the San Bernardino Valley have multiple opportunities to connect and use transit services that operate in job centers in the surrounding counties. For example, Omnitrans passengers can transfer onto Foothill Transit bus service or Metrolink commuter rail to travel into Los Angeles County. Metrolink also provides service into Orange County for those living near the San Bernardino Metrolink station and there are other connections into Riverside County through Riverside Transit Agency (RTA). However, each of these agencies has different fare structures and transfer policies between transit operators.

The following describes the fare structure for those agencies operating in the San Bernardino Valley. In addition, transfer policies between the different agencies are described. Finally, transfers between Omnitrans and Metrolink are illustrated in Figure 26 as Omnitrans can track passengers transferring with a Metrolink pass. Omnitrans does not track transfers from individual transit agencies.

Fares

Table 30 presents the fare structure and 52 fare categories applicable to the routes or lines providing service within or to the San Bernardino Valley.

Table 30, Fares for Public Transit Providers in the San Bernardino Valley

Provider and Service	Passenger Fare Categories
Metrolink	Metrolink fares are calculated with a distance-based formula using the shortest driving distance between stations, with an 80-mile maximum charge for Monthly Passes. Starting July 2016, Metrolink lowered short distance fares with tickets and passes starting as low as $1.75. The system-wide fare change decreases the cost of short distance trips (20 miles and under) to encourage local travel.
Omnitrans	Adult: Cash-$1.75; Day Pass $5.00; 7-Day Pass $18.00; 31-Day Pass $55.00 Sen/Dis/Med/Veterans: Cash-$.75; Day Pass $2.25; 7-Day Pass $8.00; 31-Day Pass $27.50 Youth: Cash $1.75; Day Pass $5.00; 7-Day Pass $14.00; 31-Day Pass $41.00 Children: Free
VVTA - BV-Link	B-V Link Single Trip: $6.00 each segment leg; Barstow to Victorville, Victorville to San Bernardino. $3.00 for Sen/Dis/Med; Children are free. Riders with valid Omnitrans and Mountain Transit fare media receive $1.00 fare discount on trips departing San Bernardino.
Mountain Transit — Rim Off-The-Mountain	One-Way Cash Fare to San Bernardino: From Crestline — $4.50; from Rimforest — $6.00; Arrowhead Village — $7.50 30-Punch Pass: $40.50 ($1.50 value per punch) *Half-price fares available to veterans, persons 60 and older, and to persons with disabilities with a Mountain Transit ADA Card.
Mountain Transit —Big Bear Off-The-Mountain	One-Way Cash Fare to San Bernardino: From Fawnskin — $10.00; from Snow Valley — $7.50; Running Springs - $5.00 24-Punch Pass: $54.00 ($2.50 value per punch) *Half-price fares available to veterans, persons 60 and older, and to persons with disabilities with a Mountain Transit ADA Card.
Riverside Transit Agency (RTA) – CommuterLink	Base Fares: General/Youth (Grades 1-12) — $3.00; Sen/Dis/Med/Vet — $2.00; Child (46" tall or under) — $2.00 Day Pass: General/Youth (Grades 1-12) — $7.00; Sen/Dis/Med/Vet — $5.00 30-Day Pass: General/Youth — $75.00; Sen/Dis/Med/Vet — $50.00

Provider and Service	Passenger Fare Categories
Riverside Transit Agency Route 14	General/Youth (Grades 1-12) — $1.50; Sen/Dis/Medicare/Veteran — $.70; Child (46" tall or under) — $0.25 Day Pass: General/Youth (Grades 1-12) — $4.00; Sen/Dis/Med/Vet — $2.00 30-Day Pass: General — $50.00; Youth: $35.00; Sen/Dis/Med/Vet — $23.00
Foothill Transit	Adult local: $1.25; Sen/Dis/Med — $0.50 Lines 481 and 690: $2.75 Silver Streak: $2.45; Sen/Dis/Med — $1.15 Commuter: $4.90
Pass Transit — Commuter Link 120	Cash fare: Adult —$3.00; Sen/Dis/Med/Vet/Child — $2.00 Day pass: Adult —$7.00; Sen/Dis/Med/Vet — $5.00 30-day pass: Adult — $75.00; Sen/Dis/Med/Vet — $50.00

Table 30 presents the fare policy of seven public transit providers plus Metrolink. Metrolink fares are all calculated on a station-to-station basis, with some variation by passenger type (e.g., regular adult versus lower fares for Senior/Disabled/Medicare rider with proper identification).

Nine Intercity city services are enumerated and each has established fares, usually distance-based fare structures. These include: NTC Commuter from Fort Irwin, BV Link from Barstow and Victorville, Rim Off-the-Mountain from Big Bear and Lake Arrowhead; RTA's Commuter Link from Riverside; Pass Transit's Commuter Link from Banning/Beaumont/Calimesa; OCTA's OC Express and Foothill Transit's Silver Streak.

Local fares vary by pass type, such as Omnitrans' Day Pass, 7-Day Pass and 31-Day Pass for adults and a parallel pass fare structure for youth. There are further variations by rider type, including senior and disabled riders and free trips for children and veterans. For the Omnitrans and Metrolink services, plus the nine intercity services enumerated in Table 30, there are 52 fare types presented.

Transfer Policies

Public transit providers have established formal transfer policies with neighboring providers to make travel between and across multiple systems easier for their riders. These policies may include agreements on acceptance of partner fare media and discounts to shared transfer locations and timing for meaningful connections. Existing transfer policies that serve the valley are detailed in Table 31.

Table 31, Transfer Policies for Public Transit Providers in the San Bernardino Valley

Transit Provider	Transfer Policy
Metrolink	By special arrangement with transit systems throughout Southern California, connection with public transit buses are free with a valid Metrolink ticket. An additional fare payment may be required for express or other non-local bus service. Metrolink does not accept passes or fare media from other transit agencies.
Omnitrans	One-way Metrolink ticket good for one free ride on Omnitrans bus departing Metrolink station; round-trip Metrolink ticket or multi-day pass good on Omnitrans bus to and from Metrolink station. Foothill passes accepted from point of contact. LA Metro EZ Transit passes accepted at Pomona Transit Center only. OCTA passes are accepted to/from the Chino Transit Center. VVTA, Pass Transit and Mountain Transit passes are accepted from any point of contact.
Victor Valley Transit (VVTA)	Riders with valid Omnitrans and Mountain Transit (MARTA) fare media receive a $1.00 discount when paying B-V Link fare from stops departing San Bernardino Valley on the same day of travel.
Mountain Transit	Mountain Transit accepts Omnitrans passes and Metrolink tickets for a $1.00 (general) or $.50 (senior/disabled) discount on the cash fare only.
Foothill Transit	Monthly passes, day passes and transfers from Omnitrans and OCTA are accepted as one Adult Local Fare ($1.25) at the following bus stops: •Omnitrans – Towne and Marketplace •Omnitrans – Indian Hill Boulevard and Holt Avenue •Omnitrans – Montclair TransCenter •Omnitrans – Pomona Transit Center
Riverside Transit Agency (RTA)	RTA has transfer agreements with Metrolink and Omnitrans, Orange County Transportation Authority (OCTA) and Pass Transit. Metrolink tickets and passes are accepted on RTA fixed routes that serve Metrolink stations during the period from one hour before to one hour after Metrolink's service hours and are valid on the day of travel. Fare media from Omnitrans and Pass Transit are accepted at transfer locations at the equivalent base fare rate, excluding CommuterLink service, on the day of travel.
Pass Transit	Pass Transit connects with Omnitrans, Mountain Transit and Victor Valley Transit Agency at the San Bernardino Transit Center (SBTC). Omnitrans will accept a free transfer from CommuterLink 120, and Omnitrans riders will get a $1.00 discount off for Commuter Link fares as Commuter Link has a higher $3.00 premium fare.

Omnitrans — Metrolink Transfers

Omnitrans allows one free ride for passengers traveling to and from a Metrolink Station (see Fare section for more detail). Because Metrolink subsidizes transfers, Omnitrans tracks passengers that board an Omnitrans bus when showing a Metrolink pass. Omnitrans only accepts Metrolink passes on bus routes that travel to a Metrolink Station. Transfers between Omnitrans and Metrolink are not too significant. In FY 2016, Omnitrans reported that only 0.45 percent of the Omnitrans fixed-route bus ridership by fare category were Metrolink pass holders.

Table 32 shows routes adjacent to Metrolink stations and the number of passengers transferring between the two systems. These Omnitrans routes are adjacent to the corresponding Metrolink stations.

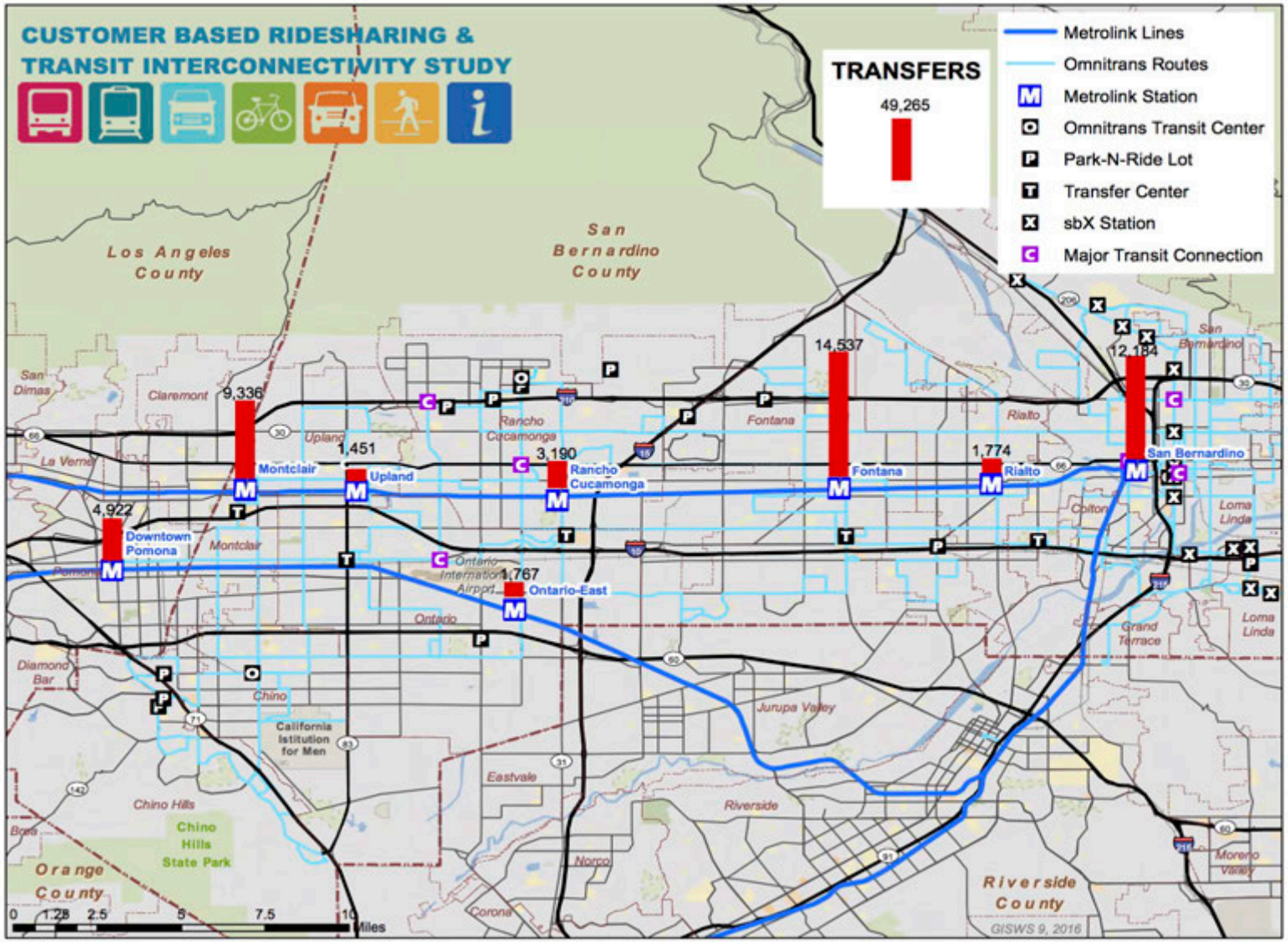
Table 32, Transfers Between Omnitrans and Metrolink, Derived from March 2016 Counts

Transfer Information Derived from March 2016 Actual Transfer Experience			
Station Location	**Route Accepting Metrolink Pass**	**Number of Omnitrans/Metrolink Transfers**	**Proportion of Transfers by Metrolink Station**
San Bernardino	1	12,184	24.7%
Rialto	15, 22	1,774	3.6%
Fontana	10, 14, 15, 19, 20, 61, 66, 67, 82	14,537	29.7%
Rancho Cucamonga	82	3,190	6.5%
Upland	83, 85, 86	1,451	2.9%
Montclair	66, 85, 88, 290	9,336	19.0%
East Ontario	81	1,767	3.6%
Pomona	61	4,922	10.0%
	Total	49,265	100%

Note: Shaded cells represent location/stops within San Bernardino County.

Figure 26 illustrates transfer activity at Metrolink stations in San Bernardino County. Omnitrans-Metrolink transfers are the highest at the Fontana Metrolink station with almost 30 percent of all Omnitrans-Metrolink transfers. This is due to the number of routes serving the Fontana Metrolink Station. However, the Santa Fe Depot in San Bernardino has the second highest transfer activity at almost 25 percent. Omnitrans Route 1 is the only route that serves the Santa Fe Depot. Route 1 provides high quality service operating at 15-minute frequencies and traveling to major destinations, including the San Bernardino Transit Center, in the City of San Bernardino.

Figure 26, Omnitrans-Metrolink Transfers



Source: Transtrack Omnitrans – Metrolink Transfer Data for FY 16

4.5 Bicycle/Pedestrian Facilities

The Valley's Bicycle Network

San Bernardino Valley has an extensive network of bicycle paths and trails, which continues to grow as funding becomes more available. As of 2012, there were approximately 503 miles of bicycle lanes in San Bernardino County (2016 RTP/SCS), a ten-fold increase from the 53 miles of bicycle lanes in 2001. Bicycle lanes are classified into the following categories:

1. Class I Bikeway — a facility completely separated from a roadway or highway. This facility can be a shared-path where both pedestrians and cyclists use the facility.
2. Class II Bikeway — a dedicated, one-way lane on a roadway or highway. The bicycle lane is indicated as a stripe on the roadway.
3. Class III Bikeway — a bicycle route identified through signage or street markings (e.g., sharrows) on a roadway. Cyclists share the roadway with automobiles.
4. Class IV Bikeway — separated bicycle lanes on a street or roadway that are physically separated from automobile traffic. This separation is achieved through a number of design configurations, including grade separation, flexible posts, inflexible physical barrier or on-street parking between the bicycle lane and through traffic. This classification was recently added to the California Manual for Uniform Traffic Control Devices (MUTCD) and Highway Design Manual.

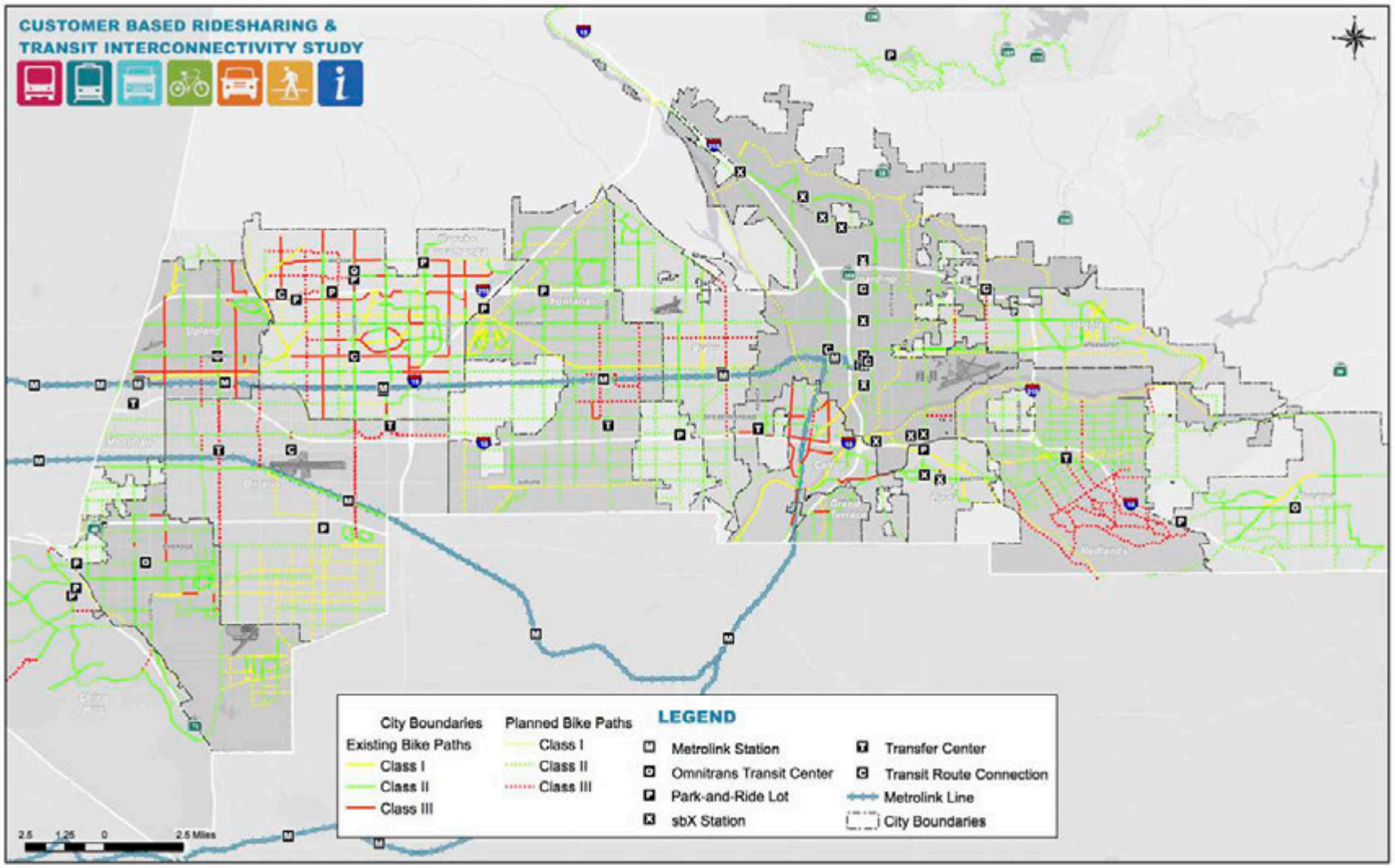
The bicycle network is more developed in the West Valley versus the East Valley, with more bike lane miles overall and more Class I bike lanes. The League of American Bicyclists has awarded the City of Rancho Cucamonga the Bronze status, an award given to bicycle-friendly communities as measured by the availability of bicycle lanes in a community, public education efforts and safety.

The following trails are existing Class I trails in the San Bernardino Valley area.

1. Santa Ana River Trail — The Santa Ana River Trail (SART) is a greenway that extends from the City of San Bernardino at South Waterman Avenue on the northern end, traveling southwesterly through the City of Colton and continuing onto Riverside and Orange counties along the Santa Ana River. The trail extends for approximately 110 miles and connects to the California Coastal Trail. SCAG's 2016 RTP/SCS identifies this corridor as part of the 2,233-mile Regional Greenway Network (RGN), which is designed to increase both walking and biking. This trail is also included in the Regional Bikeway Network (RBN), a 2,220-mile network of 14 interconnected bicycle routes.
2. Pacific Electric Inland Empire Trail — The Pacific Electric Inland Empire Trail extends for 18.1 miles beginning in the City of Fontana to the east and traveling west to the City of Claremont in Los Angeles County. The asphalt, concrete and crushed gravel trail traverses an abandoned Pacific Electric Rail right-of-way. Various access points (trailheads) exist along several points along the trail. A gap along the trail exists through an industrial area in Fontana between Cherry Avenue and Almeria Avenue. A planned extension to the City of Rialto will extend the corridor by 21 miles and possibly connect to the Santa Ana River Trail.
3. Orange Blossom Trail — The Orange Blossom Trail is a multi-purpose trail located in the City of Redlands. Many portions of the trail are in the planning phase. However, there is an existing corridor along a flood control channel between Redlands Boulevard and Center Street extending west to Tennessee Street between Park Avenue and State Street. The Orange Blossom Trail Master Plan proposes to connect the Orange Blossom Trail by traversing the City of Redlands and connecting to two separate points along the future extension of the Santa Ana River Trail.
4. Route 66 Heritage Trail — The Route 66 Heritage Trail follows the historic Route 66 from Chicago to Santa Monica. Segments of the route are in the planning phases, which include a Class I facility through the Cajon Pass. Upon completion of the corridor, the facility will extend from State Route 138 to Glen Helen Parkway in San Bernardino and travel west through the cities of Rialto, Fontana, Rancho Cucamonga, Upland and Montclair. The Adventure Cycling Association has identified a corridor closely following the original Route 66. Moreover, SCAG developed a California Bicycle Route 66 Concept Plan in 2013 that functions as a general guide to improve route awareness and allows local jurisdictions the opportunity to refine and improve the segments of the bike route that exist within its boundaries.

Figure 27 presents the entire valley, depicting bike paths and bike trails. Figures 28 and 29 also present these bike paths in relation to the West Valley and East Valley, showing the paths and trails at a somewhat higher resolution.

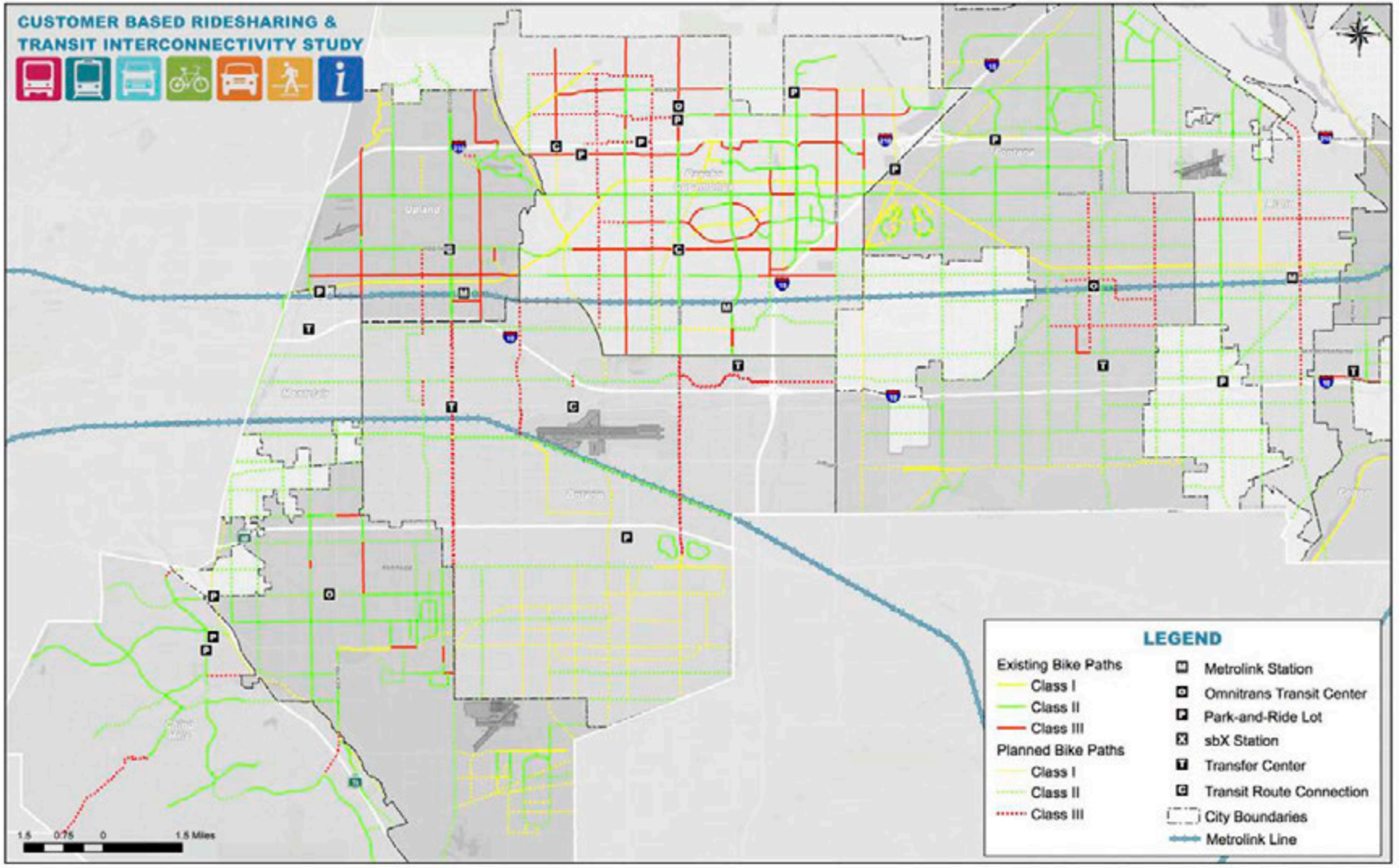
Figure 27, San Bernardino Valley Planned and Existing Bike Paths



Source: SBCTA Active Transportation Plan (2015)

Map courtesy of SBCTA

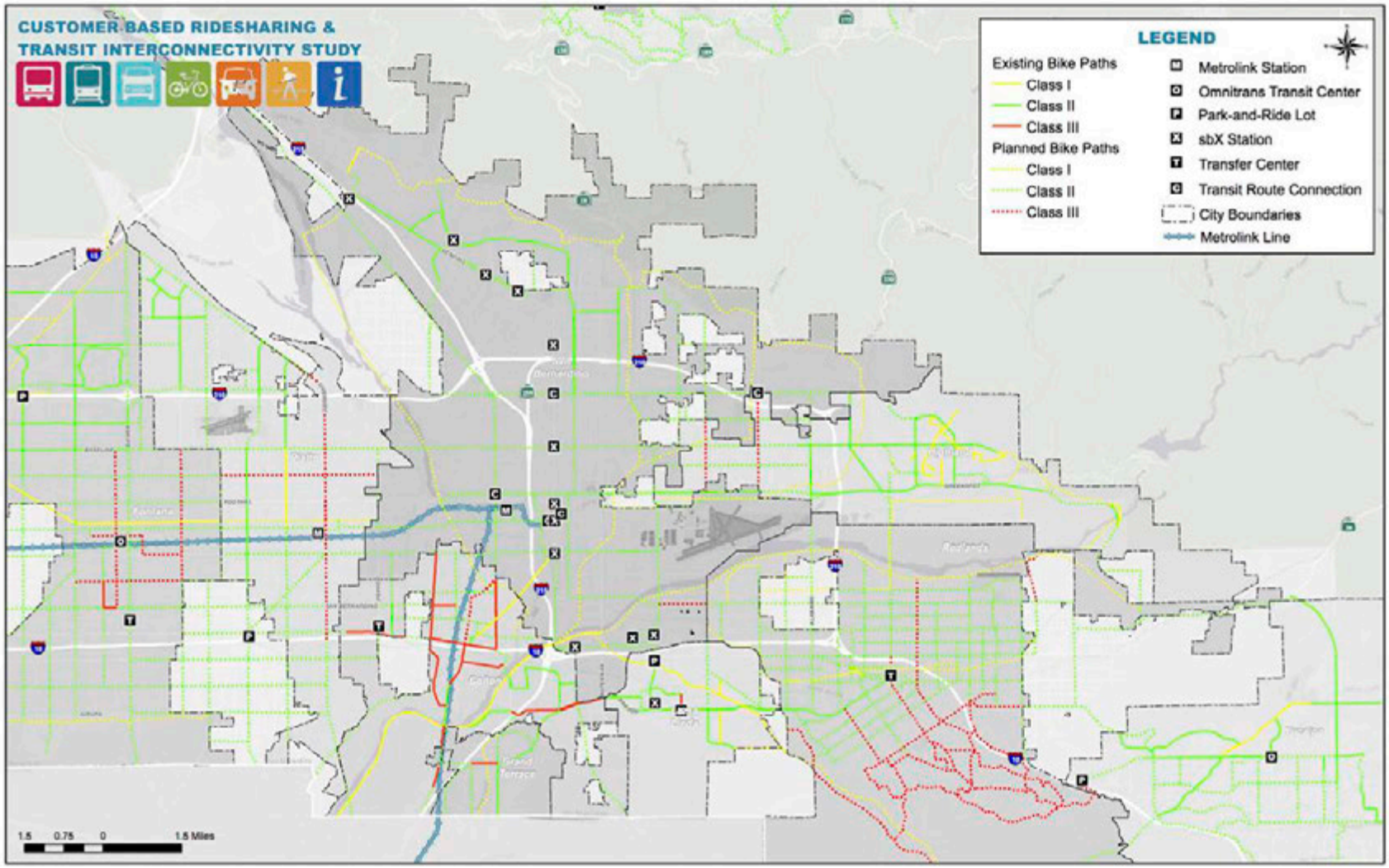
Figure 28, West Valley Bicycle Paths



Source: SBCTA Active Transportation Plan (2015)

Map courtesy of SBCTA

Figure 29, East Valley Bicycle Paths



Source: SBCTA Active Transportation Plan (2015)

Map courtesy of SBCTA

Bikes and Transit

As detailed in Chapter 2, San Bernardino County transit providers all have capacity for at least two bicycles on their vehicles, while some vehicles can carry up to three bicycles. Most operators have limited policies related to planning for bicycle facilities and not all track boardings with bicycles. While an inventory of bike facilities at these major connectivity nodes has not been done, it is possible to understand to what extent the bike-to-bus and bike-to-vanpool is a supported and viable option.

Safety for Bicyclists and Pedestrians

Safety for cyclists and pedestrians can be improved through implementation of evidence-based countermeasures. These countermeasures can include modest to significant roadway improvements to increase drivers' awareness of pedestrians and cyclists and reduce fatal and injury crashes.

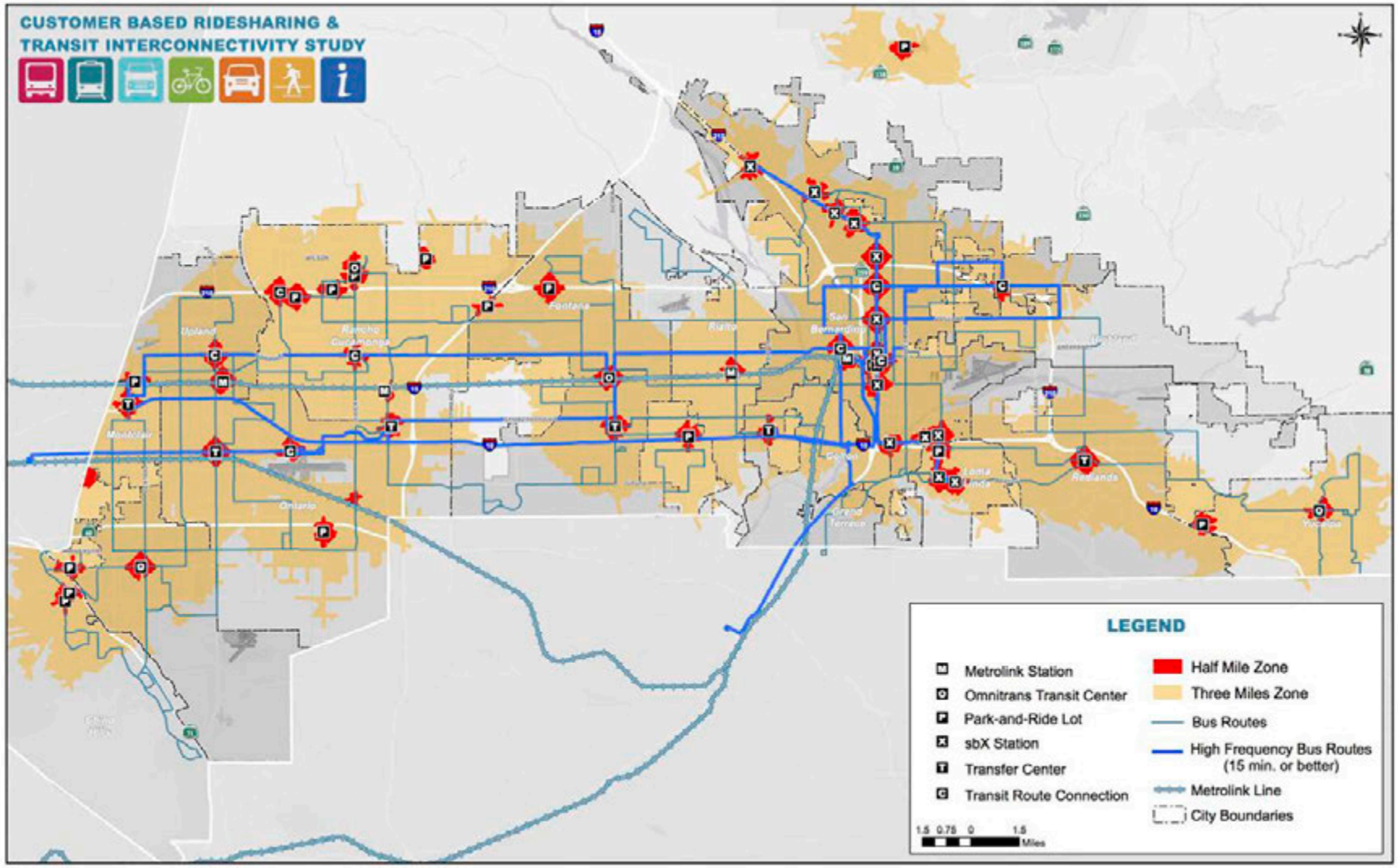
In 2008, the FTA released the GUIDANCE MEMORANDUM ON THE CONSIDERATION AND IMPLEMENTATION OF PROVEN SAFETY COUNTERMEASURES and included updates in 2012. Many of these safety improvements are also included in the SAN BERNARDINO COUNTY NON-MOTORIZED TRANSPORTATION PLAN (2011) as recommended design standards. A list of research-proven, street-oriented safety improvements includes those in the sidebar below.

- Road Safety Audits
- Rumble Strips and Rumble Stripes
- Median Barriers
- Safety Edge
- Roundabouts
- Left and Right Turn Lanes at Stop-Controlled Intersections
- Yellow Change Intervals
- Medians and Pedestrian Refuge Areas in Urban and Suburban Areas
- Walkways
- Corridor Access Management
- Backplates with Retroreflective Borders
- Longitudinal Rumble Strips and Stripes on Two-Lane Roads
- Enhanced Delineation and Friction for Horizontal Curves
- Medians and Pedestrian Crossing Islands in Urban and Suburban Areas
- Pedestrian Hybrid Beacon
- "Road Diets" (Roadway Reconfiguration)

Data was extracted from the Transportation Injury Mapping System (TIMS), a data system of the *Safe Transportation Research and Education Center, University of California, Berkeley* for the study region and analyzed. TIMS was established to compile and provide data and mapping analysis tools for those involved with traffic and transportation safety. TIMS is a response to the challenges faced by agencies and organizations in using the California Statewide Integrated Traffic Records System (SWITRS) and the need for a standardized geocoding methodology and tools that could be easily used by local entities.

This analysis considers those 65 nodes of interconnectivity that the project has identified, to examine pedestrian and bicyclist accidents and fatalities that are within ¼ mile of these nodes, a distance that is considered walkable, and within 3 miles of these nodes, a distance that is considered a reasonable trip length by bicycle. Figure 30 depicts these nodes, each discussed elsewhere in this document. Appendix B presents the specific injury and fatality data by node, from which the following maps were created.

Figure 30, San Bernardino Valley Nodes of Interconnectivity



Map courtesy of SBCTA

Pedestrian and Bicycle Injury Hot Spots

Figure 31 presents an analysis of two years of TIMS/SWITRS data collision for the San Bernardino Valley, for pedestrian-involved collisions during that period. In the West Valley, this heat map analysis shows considerable accident activity in Ontario, along Euclid Avenue, in the vicinity of Ontario High School and near the Ontario Civic Center Transfer Center — with 19 total injuries and two fatalities there alone. Also, in Upland there is accident activity near the Upland Metrolink Station with five pedestrian-related accidents and at Route 66/Foothill and Euclid Avenues with four pedestrian accidents and one fatality.

Notably, the Montclair TransCenter, which sees a significant portion of traffic from West Valley transit users, reports just three pedestrian-related incidents while the Chaffey College transfer center area records zero accidents.

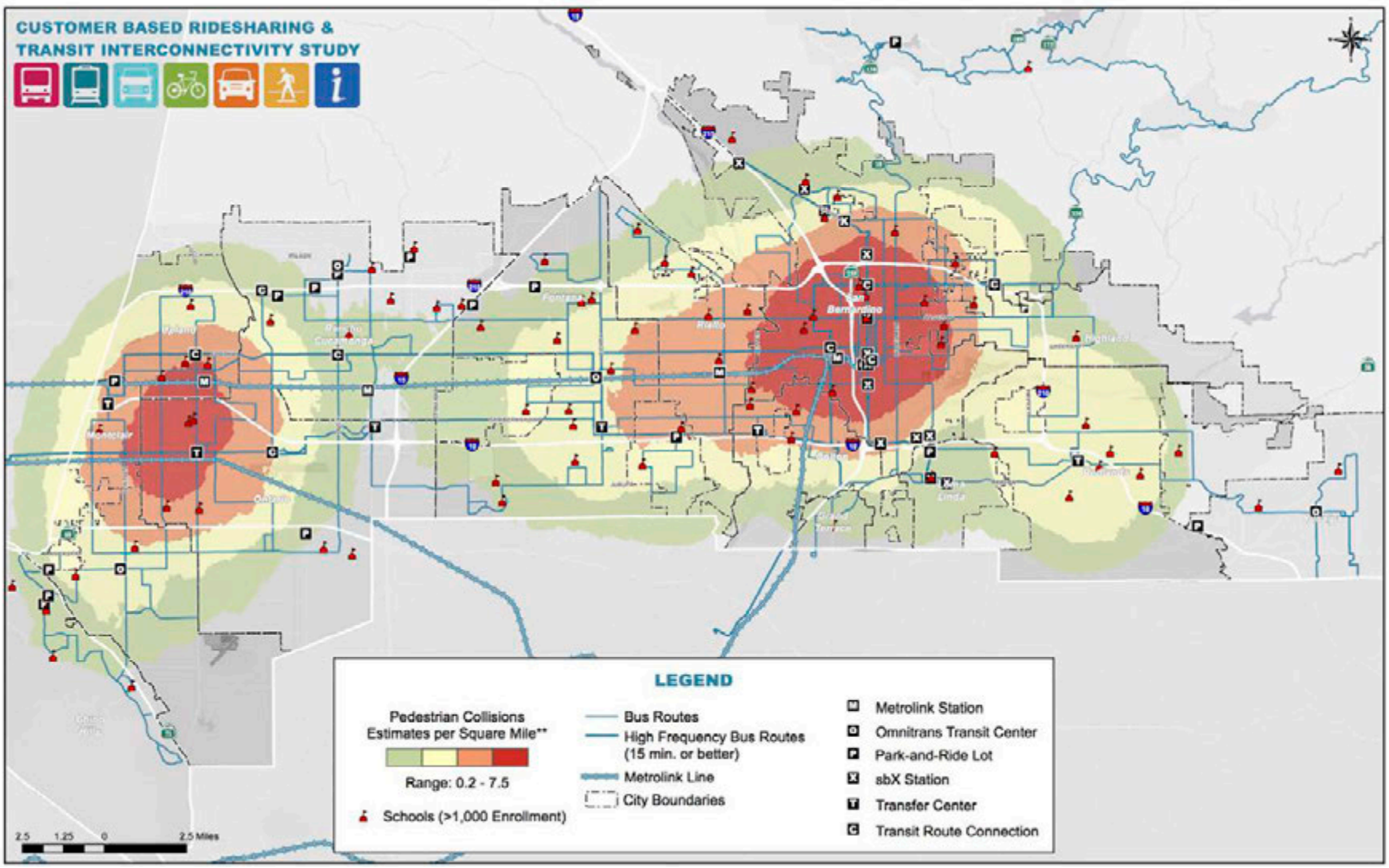
In the East Valley, Figure 31 shows a larger hot spot area for pedestrian injuries, generally centered along the E Street, sbX corridor but spreading in both directions to embrace the Greater San Bernardino downtown city area. This is an area of intense auto and transit activity and, as reflected in the map, the pedestrian experience has suffered. Crash experiences (12) along Baseline extend the hot spot to the west.

In Highland, there were pedestrian accidents near Victoria (four) and near the Transit Center (seven). In Redlands, along Redlands Boulevard there were four pedestrian accidents and 21 at the Mall Transfer Center, although neither show as hot spots in this mapping analysis.

Figure 332presents just the bicycle-related accidents and reveals a similar, if slightly different, pattern from that of the pedestrian accidents. In the West Valley, again there is a significant and large hot spot area between the Metrolink East Ontario station and the Metrolink Upland station and north, embracing five elementary and secondary schools within it and another five schools in the surrounding second tier (the lighter red area of collision intensity). For the bicyclists, with their 3-mile range in this analysis, the hot spot extends north to the 210 freeway and south below SR 60 freeway, encompassing parts of Montclair, Ontario, Upland and Rancho Cucamonga. Clearly all safety remediation and street-level countermeasures that can be put into place in these communities are warranted.

For the East Valley, Figure 32 reveals lower levels of intensity around the bicycle collisions, although still San Bernardino-centered. A small hot spot area around Rialto reflects a handful of crashes (three) in a very small geographic area there. Yucaipa does not surface as a hot spot because of its low-density but there were 11 bicycle-related crashes throughout this community. Similarly, Highland has seven bicycle-related crashes dispersed throughout its community. Again, the Redlands Mall Transfer Center is the site of collision activity with nine bicycle injuries there.

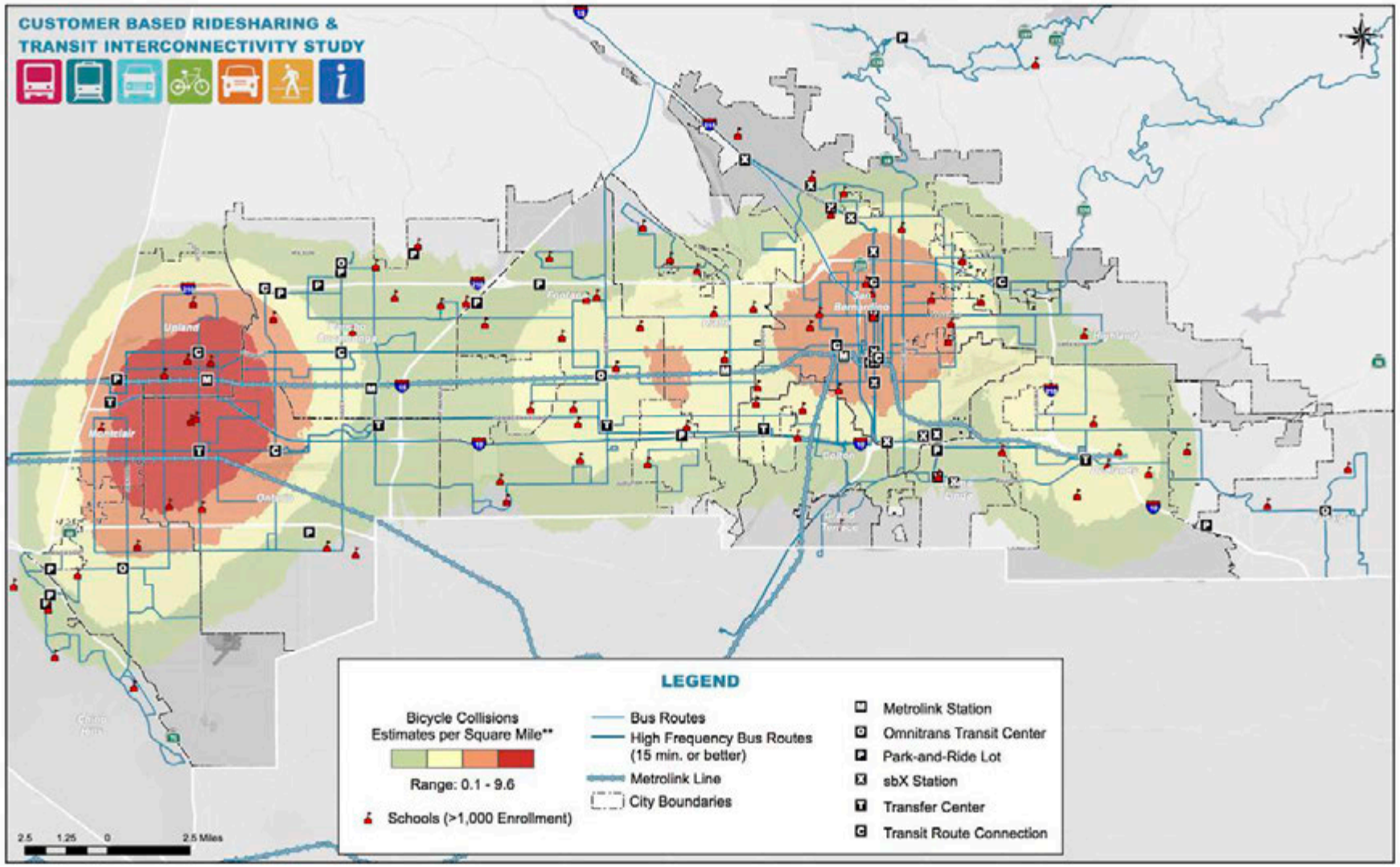
Figure 31, Two-Year Data Showing Pedestrian-Related Collisions



Source: 2013-2015 Stateside Integrated Traffic Records System (SWITRS)

Map courtesy of SBCTA

Figure 32, Two-Year Data Showing Bicycle-Related Collisions



Source: 2013-2015 Stateside Integrated Traffic Records System (SWITRS)

Map courtesy of SBCTA

Pedestrian and Bicyclist Fatalities

Figures 33 and 34 present TIMS fatality information for the two-year period 2013 to 2015 within the San Bernardino Valley and in relation to the interconnectivity nodes of interest to this project.

In Figure 33, showing fatalities within ½ mile of transit connectivity nodes, there is an intensity of fatality experience in the downtown San Bernardino area and along the 5th Street corridor. But there are many more fatalities along the adjacent street networks of Highland, Baseline, Mount Vernon and north along Cajon Boulevard. At the southern terminus of the sbX/Green line near Tippecanoe, there were several bicycle and pedestrian fatalities.

In the Bloomington area, along Valley Boulevard and at the I-10 interchange, there have been several fatalities. Near the Fontana Metrolink station and near the West Colton Transit Center, each has seen a single bicycle-related fatality during this reporting period.

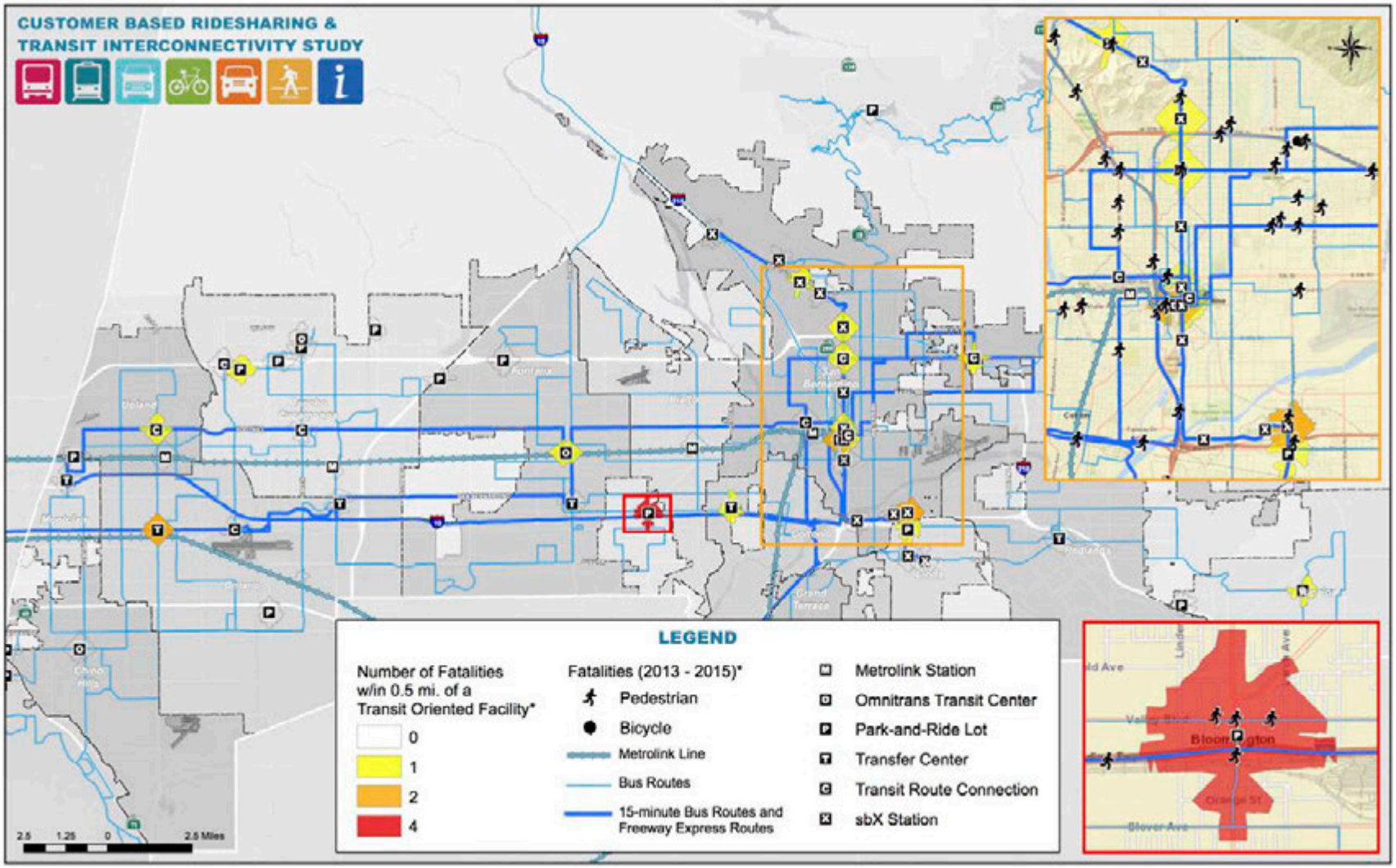
In the west end of the valley, there were single bicycle-related fatalities on Foothill Boulevard along Euclid Avenue and at the park-and-ride lot in Rancho Cucamonga. In the area of the East Ontario Metrolink Station there have been two bicycle-related fatalities.

Figure 34 presents fatality hot spots within a 3-mile distance of these connectivity nodes and reflects these same fatalities, but additional ones to generate the high intensity, dark red areas around Greater San Bernardino, with 17 to 21 pedestrian and bicyclist fatalities. The lighter red areas, encompassing Rialto and southern San Bernardino city, reflect ranges of 12 to 16 fatalities.

Areas with a slightly lower level of crash intensity, depicted in orange, include north San Bernardino and areas adjacent to Highland, eastern San Bernardino and Loma Linda, Grand Terrace, Colton, south Fontana and the Greater Ontario and Upland areas discussed previously. These register between seven to 11 fatalities during this two-year reporting period.

Finally, there are still significant yellow sections of the map with between one to six fatalities reported during this period and encompassing Yucaipa, Redlands, north Fontana, Rancho Cucamonga and east Ontario. All of these communities will benefit from continued attention to the safety of pedestrians and bicyclists traveling along residential streets and arterial roads to make various trips.

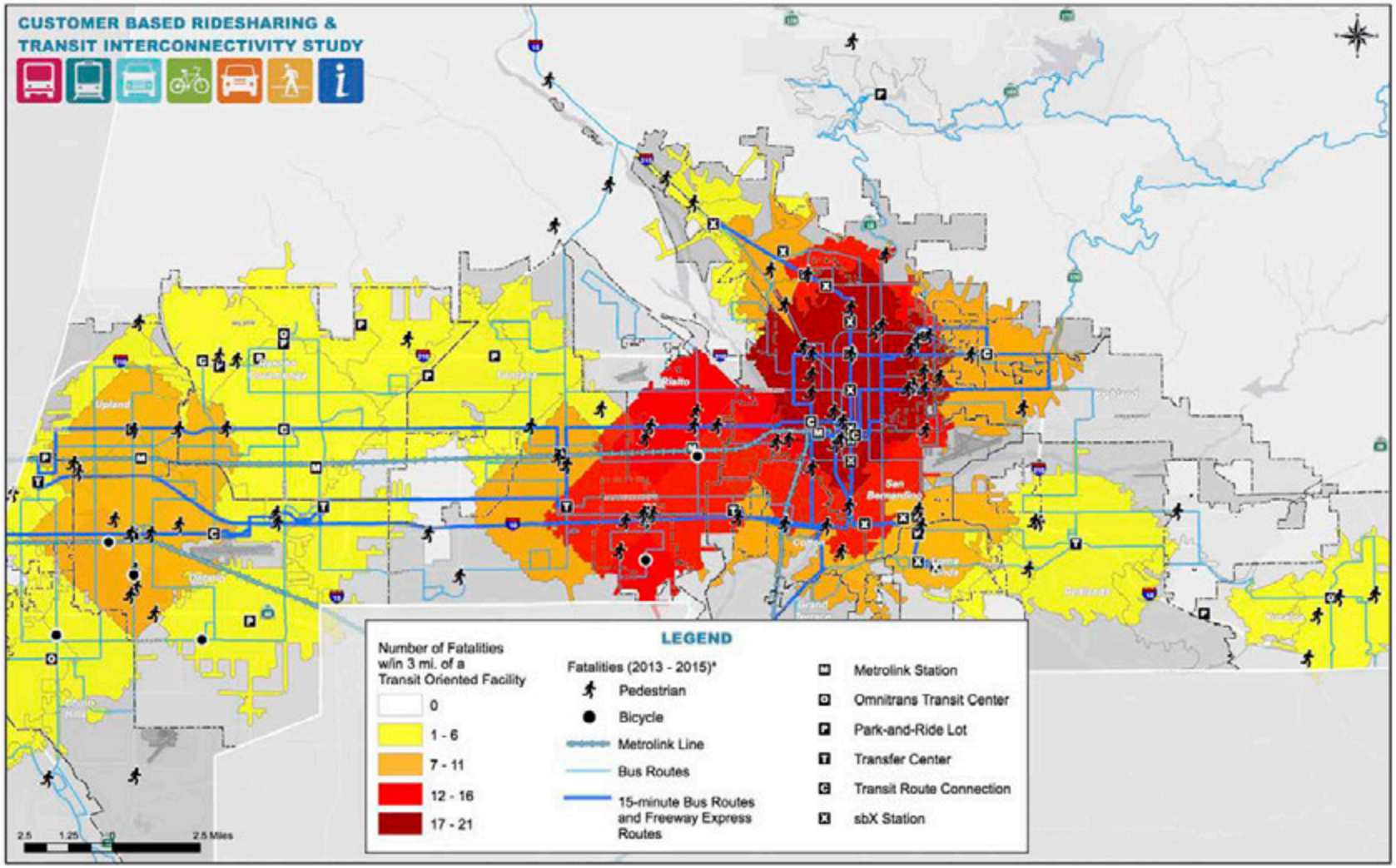
Figure 33, Pedestrian and Bicycle Fatalities Within ½ Mile of a Transit Facility



Source: 2013-2015 Stateside Integrated Traffic Records System (SWITRS)

Map courtesy of SBCTA

Figure 34, Pedestrian and Bicycle Fatalities Within 3 Miles of a Transit Facility



Source: 2013-2015 Stateside Integrated Traffic Records System (SWITRS)

Map courtesy of SBCTA

4.6 Park-and-Ride Facilities

Identification of Park-and-Ride Facilities

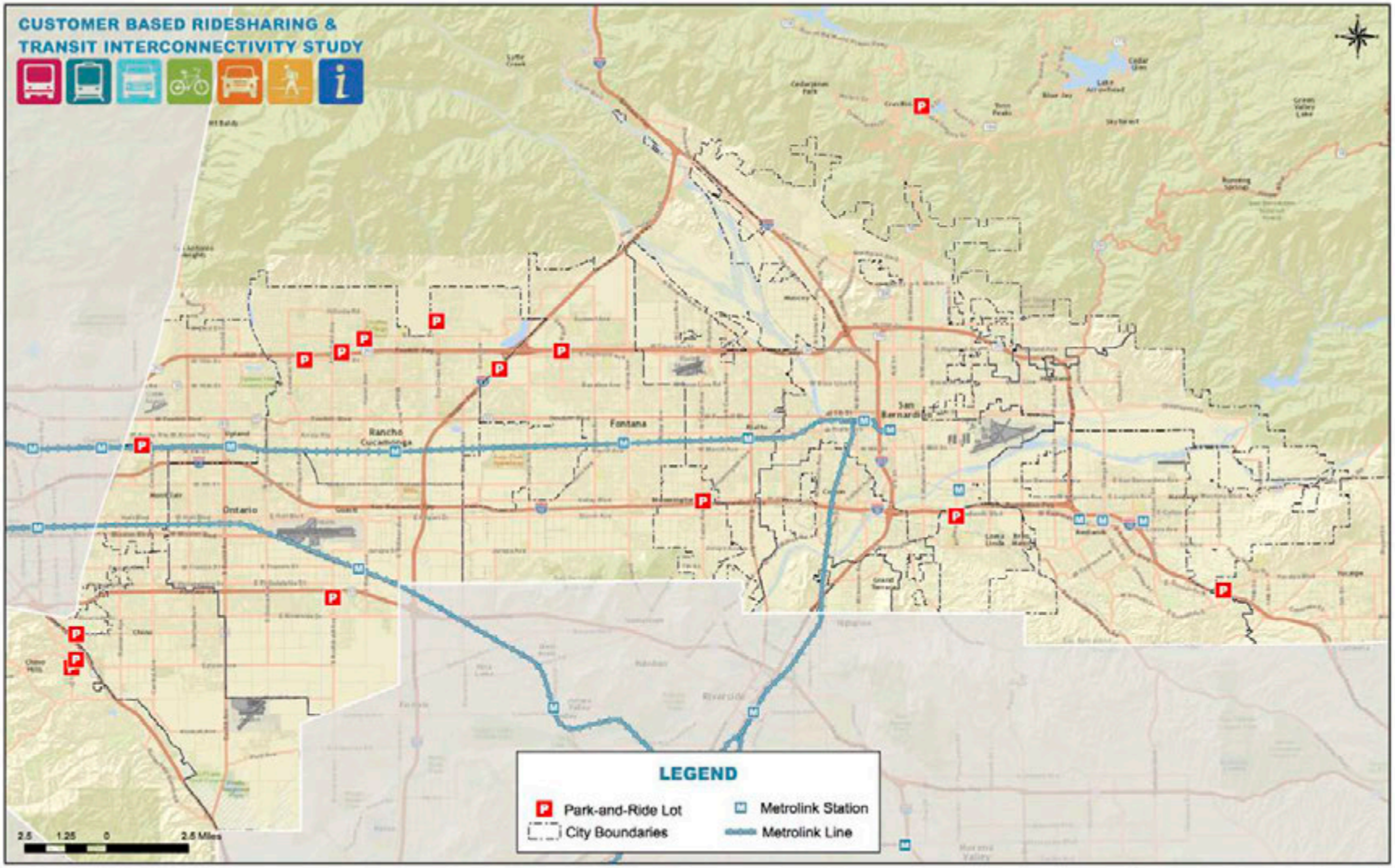
The automobile remains the dominant form of transportation in the San Bernardino Valley with more than 92 percent of San Bernardino commuters traveling by auto to work. Driving alone to work and elsewhere provides a sense of independence and privacy not easily attained from using public transportation with 78 percent of San Bernardino Valley commuters indicated they drive alone. Another 13.8 percent reported carpooling or vanpooling (2010-2014 ACS). Sharing a ride with individuals that one knows, or through ridematching, can be cost-effective, an alternative to driving oneself and help reduce congestion.

Park-and-ride facilities provide locations for individual pick-ups and support ridesharing. Moreover, transit agencies can provide commuter services from park-and-ride lots, where these lots act as a focal point for commuters to gather and from which to travel to key regional destinations.

Figure 35 and Table 33 identify park-and-ride lots listed as part of San Bernardino County's 511 program. These facilities are located along major commuter routes and provide quick access to Southern California's highway network. In continuing with the theme of interconnectivity, transit connections are listed along with destinations to illustrate existing connections and opportunities to travel throughout the region without using a car.

Employer Transportation Coordinators (ETCs) have commented to the study team that there are many informal park-and-ride lots, at different locations, for example, at churches and Wal-Mart locations. These locations are communicated to and from the ETCs to prospective rideshare and carpool users, thus further enhancing the opportunity to rideshare.

Figure 35, San Bernardino County Park-and-Ride Facilities



Map courtesy of SBCTA

Table 33, San Bernardino County Park-and-Ride Facilities

Park-and-Ride Lots					
Lot Name	**Agency Owner**	**Address**	**Transit Connections**	**Transit Destinations**	**Number of Stalls**
Barstow "L" Street	Caltrans	I-15 & L St. (NE Corner), Barstow	VVTA, NTC Commuter 101, 104, 105, 106	Barstow, Hesperia, Helendale	130
Bloomington	San Bernardino County	10175 Cedar Ave., Bloomington	Omnitrans 29	Bloomington – Kaiser Fontana	20
Chino	Caltrans	3321 Chino Ave., Chino	Foothill Transit 497	Chino Park and Ride – Industry Park and Ride – Downtown Los Angeles	163
St. Paul the Apostle Church	SBCTA	14085 Peyton Dr., Chino Hills	OmniGo 365	Chino Hills	77
City of Chino Hills Parking Structure	SBCTA	13952 City Center Drive — Top Deck, Chino Hills	Omnitrans 88, OmniGo 365, OCTA 758	Chino Hills, Montclair, Brea, Irvine Spectrum	84
Crestline	San Bernardino County	Forest Shade & Lake Dr., Crestline	Mountain Transit RIM Arrowhead	Lake Arrowhead, Crestline, San Bernardino	34
Beech/SR-210	Caltrans	Beech/SR-210 (SW Corner), Fontana	None	NA	150
Transportation Management Center	Caltrans	13850 Victoria St., Fontana	None	NA	116
Hesperia	City	US 395 & Joshua St. (SW Corner), Hesperia	None	NA	150
sbX Redlands Blvd. Parking Facility	Omnitrans	10554 Anderson St., Loma Linda	Omnitrans 2, 8	San Bernardino, Loma Linda, Mentone, Yucaipa	242
Montclair Transit Center	Caltrans	5091 Richton St., Montclair	See Montclair Transit Center, Table 16	See Montclair Transit Center, Table 16	1,700
Montecito Baptist Church	SBCTA	2560 S. Archibald Ave., Ontario	None	NA	51
Shepherd of the Hills	SBCTA	6140 Haven Ave., Rancho Cucamonga	Omnitrans 80, 81, 85	Chino, Montclair, Ontario, Rancho Cucamonga,	85
Highland Avenue Community Church	SBCTA	9944 Highland Ave., Rancho Cucamonga	None	NA	122
Community Baptist Church	SBCTA	9090 19th St., Rancho Cucamonga	Omnitrans 80	Ontario, Rancho Cucamonga	50
sbX Palm & Kendall Parking Facility	Omnitrans	3165 Kendall Dr., Rancho Cucamonga	Omnitrans 2	Loma Linda, San Bernardino	81
Victor Valley Transportation Center	City	16838 D St., Victorville	Amtrak, VVTA 22, 41, 101, 102, 103, 107	Barstow, Victorville, Hesperia, Helendale, Apple Valley	176
San Bernardino County Fairgrounds	SBCTA	14800 7th St. (Plaza Dr. Entrance), Victorville	VVTA 22, 41	Helendale, Apple Valley, Victorville	48
Bear Valley	Caltrans	12000 Amargosa Rd., Victorville	VVTA 22, 53	Helendale, Victorville	230
Yucaipa	Caltrans	31341 Hampton Rd., Yucaipa	None	NA	80
Yucca Valley	City	7485 Kickapoo Trail, Yucca Valley	MBTA 1, 7A, 7B, 12	Joshua Tree, Yucca Valley, Twenty-nine Palms, Palm Springs,	143

4.7 HOV Lanes

The construction of high-occupancy vehicle (HOV) lanes and facilities attempt to entice commuters to use shared mobility options or to use improved automobile technology thereby improving mobility on highways and reducing mobile source pollution. HOV lanes are designed exclusively for commuters that carpool, use public transit or drive low-emission vehicles. HOV lanes enable travel time savings, especially during peak morning and evening commute times.

Southern California has a robust network of HOV lanes spanning several counties. Within this network, San Bernardino County has over 49 miles of HOV lanes along highways in the Valley area, shown in Figure 36. These facilities are a benefit to residents that carpool, vanpool or use rubber tire public transit. Table 34 lists the location of HOV lanes in the San Bernardino Valley. In addition, public transit routes and nearby park-and-ride lots are listed in the table.

Table 34, HOV Segments in San Bernardino Valley

HOV Segment	Beginning western/ southern point	Ending eastern/ northern point	Cities	Adjacent Park-and-Ride facilities	Transit Routes traveling on highway
SR-210	SR-71	I-215	Upland, Rancho Cucamonga, Fontana, Rialto, San Bernardino	Beech/SR-210 Caltrans TMC Shepherd of the Hills Highland Avenue Community Church Community Baptist Church	None
I-10	SR-71	I-15	Montclair, Ontario	Montclair Transcenter	Omnitrans 290, RTA 204
SR-60	SR-71	I-15	Chino, Ontario	Montecito Baptist Church	None
SR-71	Butterfield Ranch Road	Chino Avenue	Chino, Chino Hills	Chino Park and Ride City of Chino Hills Parking Structure St. Paul the Apostle Church	None
I-215	SR-60	SR-210	San Bernardino, Colton	Hunter Park Station (Riverside County) Riverside – Orange Park and Ride (Riverside County)	Omnitrans 215

I-210 — I-210 (a state route throughout San Bernardino County) extends through Los Angeles County from Santa Clarita to San Bernardino. However, the HOV lane extends through San Bernardino County up to the City of Pasadena in Los Angeles County.

I-10 — The I-10 is one of the longest highways on the original Interstate highway network that extends from the State of Florida to California. The San Bernardino segment begins at the eastern point of the San Bernardino County line near the City of Yucaipa traveling west to the City of Montclair. The HOV segment

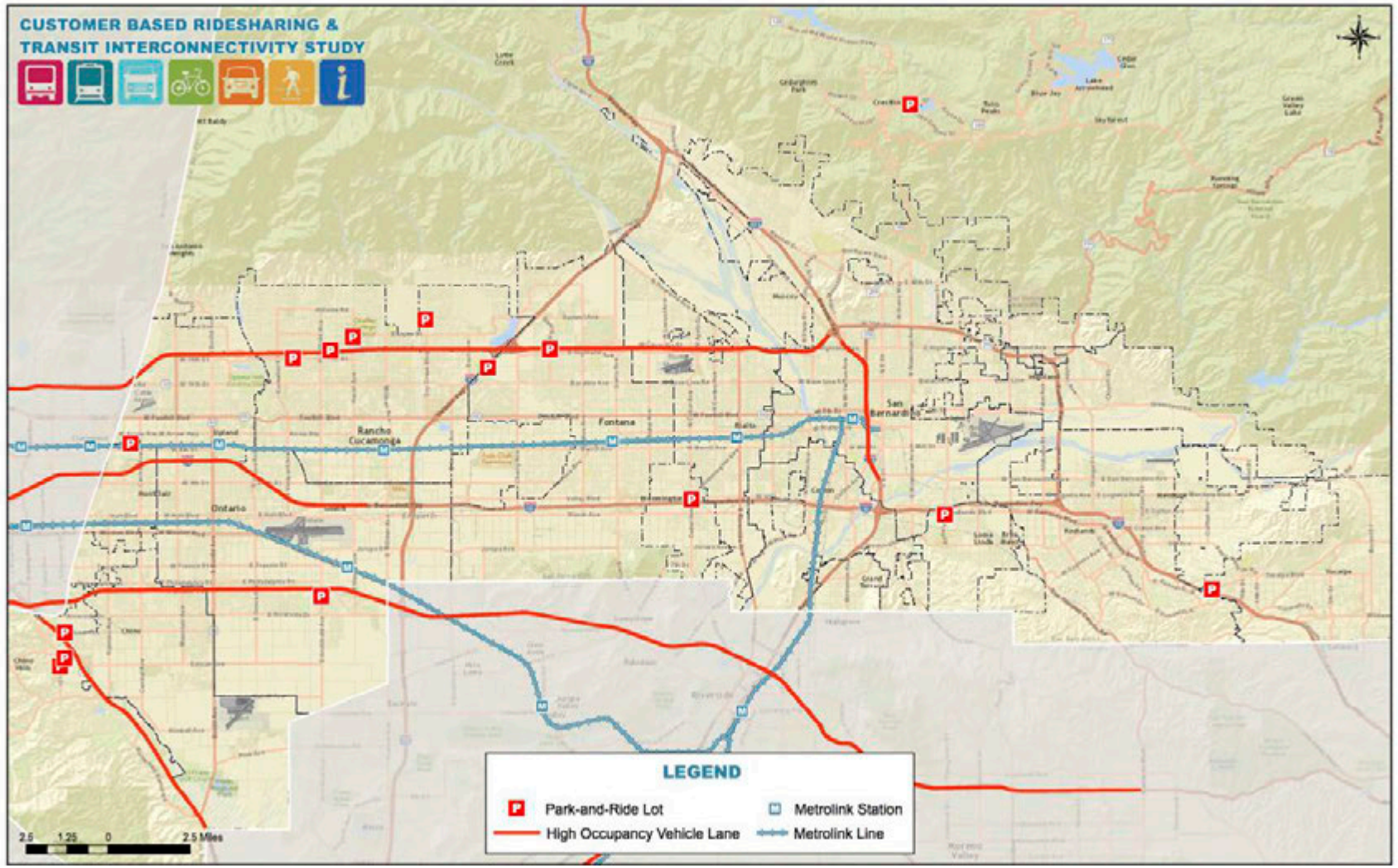
starts at I-15 and ends at the San Bernardino County line at Montclair. The Los Angeles County Metropolitan Transportation Authority (LACMTA) is constructing an HOV lane from the San Bernardino County line ultimately connecting this facility to the HOV and High Occupancy Toll (HOT) lanes traveling to downtown Los Angeles.

SR-60 — State Route 60 extends from the eastern end of the City of Los Angeles to the City of Beaumont in Riverside County. An HOV lane extends for a majority of the highway in both Riverside and San Bernardino counties with a portion in Los Angeles County up to I-605.

SR-71 — State Route 71 travels north-south from I-210 to the north and SR-91 to the south. The San Bernardino County portion of SR-71 is a mixed-flow highway with an HOV lane traveling on both directions from Chino Avenue to the north to Butterfield Ranch Road to the south. The City of Chino Hills is located on the west of the highway while the City of Chino exists on the east side of the highway.

I-215 – The I-215 travels north-south through both Riverside and San Bernardino Counties. An HOV lane extends throughout this corridor beginning at SR-60 to the south in Riverside County to SR-210 (designated a state route in San Bernardino County) in San Bernardino.

Figure 36, Park-and-Ride Lots and HOV Lanes



Map courtesy of SBCTA

4.8 Ridesharing and Vanpooling Activities in San Bernardino County

Overview of SBCTA Ridesharing Partnership and Programs

Patterned after the 1991 Riverside County Transportation Commission's (RCTC) Commuter Assistance Program, the San Bernardino County Transportation Authority (SBCTA) introduced its ridesharing program in 1993. Through a collaborative partnership with RCTC, SBCTA has provided employer assistance, surveying, ridesharing incentives and rewards through a partnership with RCTC. RCTC has managed the rideshare program on behalf of the two agencies with SBCTA reimbursing RCTC for SBCTA's share of the program. SBCTA has funded its rideshare program primarily through Congestion Mitigation and Air Quality (CMAQ) funding, with matching funds through San Bernardino County's half-cent sales tax for transportation programs, Measure I.

The cornerstone of the 1993 rideshare program was the offering of a $2/Day Incentive for a three-month trial period to county residents who commute to and from work, have been driving alone and transition to a rideshare alternative. Eventually an ongoing reward program was offered as well, targeting residents who commute to and from work and who have been ridesharing for at least a three-month period. Alternative commute modes that are eligible to receive an incentive or reward, include carpooling, vanpooling, bus, rail/Metrolink, biking, walking and telecommuting.

In 2003, RCTC and SBCTA ("Agencies") received a grant to target long-distance commuters who lease a vanpool to commute to and from work. This program offered a staggered incentive over a nine-month period, to help defray the start-up costs of a vanpool. In 2005, the staggered vanpool incentive program became a permanent program in the Agencies' menu of incentive program offerings. In 2012, the Victor Valley Transit Authority (VVTA) implemented an ongoing/vanpool subsidy of $400 per month for vanpools that begin or terminate in the Greater Victor Valley and North Desert areas.

The incentive and reward programs were initially branded by program and by county. Over time, it was decided to simplify the branding and approach. All of the current ridesharing offerings are contained on the Inland Empire (IE) 511 website (http://www.ie511.org) as the IE Commuter program (http://www.ie511.org/iecommuter/). The Incentive program is referred to as the $2/Day Incentive and the Reward Program is branded as "Rideshare Plus. Since July 2015, RCTC has contracted with WSP|Parsons Brinckerhoff for program implementation and administration.

Primary Outreach: Employer-Based Participation

As SBCTA works with large county employers to bring the SBCTA rideshare programs to the commuter, SBCTA requires that an employer representative sign an Employer Partnership Agreement (valid for a three-

year period), which outlines the SBCTA terms and conditions along with the SBCTA rideshare offerings. The employer may "pick and choose" which SBCTA programs the employer will implement at their worksite(s). For 2016, the SBCTA offerings include:

1. **P**rovision of a commuter transportation survey that upon completion, SBCTA provides personalized ridematching information (RideGuides) to the employees. For employers subject to Rule 2202, the surveys also provide Average Vehicle Ridership (AVR) calculations.
2. $2/Day Incentive Program
3. Rideshare Plus Rewards Program
4. Nine-month Staggered Vanpool Subsidy Program
5. Guaranteed Ride Home Program
6. Access to IE Commuter staff support and services via phone, website, Facebook and Twitter
7. Marketing resources, including Rideshare Week Promotional campaigns, Rideshare newsletters, Employee Transportation Network Meetings and marketing workshops

Many of the above offerings are managed by the employer's designated ridesharing representative (many times referred to as an Employee Transportation Coordinator or ETC) by logging on to IE Commuter's Incentive Management module/portal. This is a password-protected online website portal that provides many of IE Commuter programs' tools to the employer. In addition, the Incentive and Reward programs also require that the commuter seek employer sign-off when applying. As a result, employer involvement is inherent in program implementation. However, the need for direct employer involvement has and continues to be lessened over the years as more online tools are now available. Currently, the number of employers that have signed Employer Partnership Agreements (EPA) with SBCTA totals 96. Those employers that only take advantage of the Rideshare Plus Program are not required to sign an EPA; therefore, this number is an underrepresentation of actual employer participation in the SBCTA rideshare program.

Direct Marketing to Commuters

The manner in which a commuter will learn about the SBCTA ridesharing programs is primarily through a participating employer via word-of-mouth or friends and family. From time to time there are SBCTA-sponsored radio or newspaper advertisements; however, these direct marketing efforts are minimal.

Regional Efforts

In 2001, the Southern California County Transportation Commissions (CTCs) who provide rideshare programs in their respective counties began to partner together to provide certain regional ridesharing services and programs. In addition to SBCTA and RCTC, the other participating CTCs were the Los Angeles County Metropolitan Transportation Authority (LA Metro), the Orange County Transportation Authority (OCTA) and Ventura County Transportation Commission (VCTC). Each year the CTCs determined the regional services and programs to be provided, who will serve as the lead agency in the provision of each service and then created a methodology to share the costs of those services.

The primary service provided was a regional ridematching database (http://www.ridematch.info) that all county transportation commissions could access and deliver their employer surveying services. In addition to the ridematching services, other services provided included an:

- annual luncheon to promote rideshare week to regional newscasters/traffic reporters
- the development and maintenance of a regional ridesharing website (http://www.commutesmart.info)
- a periodic newsletter targeted to ETCs but available for distribution to employees (http://www.commutesmart.info/commutesmart-news.asp)
- a Guaranteed Ride Home, or GRH, program (http://www.ie511.org/rideshare/employers/core-rideshare-program/guaranteed-ride-home).

The provision of these regional services changed in 2014 when RCTC (as the lead agency on the regional ridematching database) no longer provided the regional ridematching services and created a new ridematching product for Inland Empire commuters. Since that time, Inland Empire residents and employers have utilized the IE Commuter ridematching tool, which can be accessed at the following link: https://www.ie511.org/iecommuter/TDMRegistrationForm.jsp?idscreen=COMREGFRM1.

Other entities, LA Metro, OCTA and VCTC commuters and employers continue to use the former regional ridematching tool, www.Ridematch.info. Currently, the five-county transportation commissions continue to work as a region in providing the GRH program. LA Metro is the regional lead on this program where they contract with a private consultant to oversee the program (see the GRH program description below). LA Metro manages the GRH program on behalf of the participating CTCs, who then reimburse LA Metro for their share of the GRH program expenses. LA Metro also continues to develop and distribute CommuteSmart News each year and does so on behalf of the participating CTCs (RCTC is not included in this effort).

Impact of Rule 2202 and Employer Participation

The Rideshare Program relationship with county employers has been a long-standing strategy and dates back to the late 1980s when San Bernardino Valley employers with 100 or more employees were subject to the South Coast Air Quality Management District's (SCAQMD) 1988 trip reduction regulation (Regulation XV). After many challenges and controversy, in 1995, Regulation XV was replaced with SCAQMD's Rule 2202, which eliminated the employers' requirement to implement a trip reduction program. Instead, Rule 2202 required employers with 250 or more employees to implement one of a variety of strategies to achieving mobile source emission reductions, in addition to the ridesharing option (known as the Employee Commute Reduction Program, or ECRP).

With the reduction in the employee threshold and since several options are available to employers to comply with Rule 2202, the Rideshare Program has seen a decline in employer participation over the years. In addition, the areas outside of the SCAQMD have never had to comply with an air quality regulation that regulates employee-commuting behaviors. In these non-SCAQMD areas, employer participation in the SBCTA rideshare program has been minimal. As a result, the Program has considered new online strategies to assist the employer in implementing the SBCTA programs, including employer access to employee

participation and statistics, online $2/day incentive applications and approval process, online Rideshare Rewards applications and approval process, and online surveying tools. Even with these strategies, the provision of any Program Incentive and Reward continues to require an employer representative involvement to "sign off" on the incentive and verify the employee participation.

External Impacts — Laws and Fuel Prices

In 2013, the State of California approved Assembly Bill 605, which requires the California Department of Motor Vehicles (DMV) to issue an original driver license to an applicant who is unable to submit satisfactory proof of legal presence in the United States. In the first year of when these driver licenses became available (January 2015), the DMV had 2 million applicants and as a result, issued more than600,000 new driver licenses[6]. This change in law, along with the continued, steady decline in fuel prices over the past few years, may have a negative impact on public agency rideshare program participation. This impact will be presented further below under the current rideshare program results.

Current SBCTA Rideshare and Vanpool Subsidy Programs

The SBCTA ridesharing and vanpool programs continue to evolve with several key efforts underway to launch new programs and address current commuter needs. Due to the launch of recent RCTC online ridematching tools, and the change of contractors that implement the bi-county rideshare program, the past few year statistics have fluctuated and do not necessarily represent commuter participation in these alternative modes. The ridesharing statistics contained in this section have been provided by RCTC staff and the vanpool data and results have been extracted directly from the National Transit Database.

$2/Day Incentive

The $2/Day Incentive ("Incentive") is available to San Bernardino County residents through eligible employers who sign an agreement with SBCTA to monitor and implement the program. Commuters must have been driving alone to and from work for the three-month period prior to submitting an application, and are in a rideshare mode at least five days during a month period, which must include at least one weekday each week. Transporting children in a carpool does not qualify for this incentive. A Rideshare participant may not have received, within six months prior to enrollment in the $2/Day Program, any incentive (including Rideshare Plus) from SBCTA's Commuter Benefits Program or any other commuter assistance program operated or funded by a public agency. If a rideshare participant received an incentive more than six months ago, the rideshare participant may receive the $2/Day Incentive only if the prior incentive was for a different rideshare mode.

Eligible commuters will receive $2 per day for each day they rideshare during the three-month demonstration period, not to exceed $130. Incentives are provided after the three-month period ends and the commuter submits a form outlining his/her ridesharing activity during the trial period. A requirement is that an employer representative verify the ridesharing trips prior to submitting their trip report to SBCTA. Upon receipt and confirmation, the Incentive is provided in the form of a one-time gift certificate via the

[5] State of California Department of Motor Vehicles website at https://www.dmv.ca.gov/portal/dmv/detail/ab60
[6] State of California Department of Motor Vehicles press release, https://www.dmv.ca.gov/portal/dmv/detail/pubs/newsrel/newsrel16/2016_01

commuter's employer. The current gift certificate offerings are from Amazon.com, Stater Bros., Vons or Target. The application and employer approval process is available online, or through a hardcopy submittal.

Table 35 presents available participant information with regards to the $2/Day Incentive rideshare program.

Table 35, $2/Day Incentive Participant Information

$2/Day Performance	FY 2013-14	FY 2014-15	FY 2015-16
Participants	997	800	726
One-way trips reduced	88,735	71,551	41,831
Miles of travel eliminated	2,312,765	2,074,979	822,082
Average miles per trip	26.1	29.0	20.4
Total program costs	$308,130	$208,825	N/A
Average incentive per participant (for the entire subsidy period)	$309	$261	N/A
Average incentive per trip	$3.47	$2.92	N/A

Rideshare Plus

The SBCTA Rideshare Rewards program, known as Rideshare Plus ("Rewards"), is available to any resident of San Bernardino County that has been in a rideshare mode and who works at an employer that signs an agreement with SBCTA to monitor and implement the program. To qualify, the commuter must have participated in a rideshare mode for a minimum of five days per month for three or more consecutive months. Commuters that enrolled and received a gift certificate in the $2/Day Incentive program are automatically enrolled into the Rewards program at the end of their three-month trial rideshare period; however, prior participation in the $2/Day Incentive program is not a requirement. For those commuters who were not a former $2/Day Incentive program recipient, the commuter must apply online or via a hardcopy submittal to IE Commuter, along with employer verification of their rideshare mode.

Table 36, SBCTA Rideshare Plus Performance

Rideshare Plus Performance	FY 2013-14	FY 2014-16	FY 2015-16
Participants	5,294	3,474	1,229
One-way trips reduced	1,649,110	922,545	254,705
Miles of travel eliminated	45,156,400	26,753,805	4,944,400
Average miles per trip	27.38	29.00	30.7
Total Program Costs	$202,208	$132,668	N/A
Average incentive per participant (for the entire subsidy period)	$38.20	$38.19	N/A
Average incentive per trip	$0.12	$0.14	N/A

Table 36 presents available Rideshare Plus participant utilization and cost information. A Rideshare Plus membership provides access to a "members only" website that contains online coupons/offerings and savings to more than 135,000 local and nationwide merchants through the Entertainment Book offerings (https://shop.entertainment.com). The information provided in the commuter Rideshare Plus application is minimal and includes their average ridesharing mode and commuting behavior. Upon approval, the commuter receives an email confirming approval along with instructions/links to their Rewards' website. Coupons and offerings are available through the Entertainment Book website, or through an application available on mobile devices. SBCTA reserves a limited number of Rideshare Plus coupon books for commuters with no email capabilities or internet access.

Nine-Month Staggered Vanpool Subsidy Program

A "vanpool" is a group of five to 15 commuters who voluntarily participate in an arrangement to travel in a vehicle (either a large sport utility vehicle or a minivan), to and from work. The driver of the vanpool is not paid for his/her services and is an employee traveling to and from work like the other passengers. Vanpools are formed through a variety of methods but most often through the work-end where employees contact their human resources or an employee transportation coordinator to assist in vanpool formation. Many vanpools formed in San Bernardino County are leased vans; however, there are vanpool programs that encourage either employee-owned vans or vanpools where the vans are purchased through the employer. When vanpools are formed through a leasing arrangement, the cost of the van, maintenance and insurance is included in the lease cost in the monthly price charged to the vanpool leaseholder. In addition to the monthly lease cost, the participants (leaseholder, driver and passengers) share the out-of-pocket costs, such as fuel, tolls and car washes.

In 2003 through a Mobile Source Air Pollution Reduction Review Committee (MSRC) air quality grant, RCTC and SBCTA developed an incentive program to target long-distance commuters who lease a van to commute to and from work. The program became a permanent offering in 2005 as a one-time staggered subsidy provided to newly formed vanpools that originate in Riverside and/or San Bernardino counties. The monthly subsidy is provided directly to the leasing company and, in turn, the leasing company reduces the monthly cost of the vanpool. Each vanpool may receive up to $300 per month for the first three months, $200 per month for the next three months and $100 per month for the last three months, for a not-to-exceed nine-month incentive of $1,800. The intent of this one-time "staggered" subsidy is to assist the vanpool leaseholder and passengers as they begin the rideshare commute and look for additional passengers to join the vanpool. The vanpool and its participants have the option to participate in the nine-month subsidy OR the $2/Day Incentive OR any public agency ongoing vanpool subsidy program; however, they may not participate in any of these programs simultaneously.

Since the SBCTA nine-month vanpool subsidy is a one-time subsidy, the program is not eligible to report into the Federal Transit Administration's (FTA) National Transit Database (NTD). Reporting into the NTD is necessary to receive FTA funding (Section 5307) as a result of the statistics reported.

Since the implementation of the VVTA ongoing vanpool subsidy program, the SBCTA nine-month staggered vanpool program enrollment has experienced a sharp decline. It is anticipated that as soon as SBCTA implements its ongoing vanpool subsidy, this nine-month staggered incentive program will be eliminated.

Guaranteed Ride Home

An often cited reason as to why a commuter may not rideshare is due to the concern of a sudden home/family emergency or having to work late. A solution is the provision of a regional Guaranteed Ride Home (GRH) program funded by the Southern California CTCs and administered by LA Metro. GRH is a free benefit offered to enrolled employers and their employees who carpool, vanpool, take transit, bicycle or walk to work. A ride home (via taxi, car rental, transportation network company [TNC], carsharing or public transit) will be available to qualified emergencies and to participating ridesharing employees, up to two times during a 12-month period. The program has been designed for ease of use and minimal employer administration. Participation is included in the SBCTA/Employer Partnership Agreement and upon approval, all employees who rideshare to work are eligible for the GRH reimbursement.

Each ridesharing employee can receive the GRH reimbursement up to two times in a 12-month period, based on the employer's program enrollment or re-enrollment date. The GRH Program will reimburse a one-way taxi ride (not to exceed $3 per mile and including up to a 15 percent tip), one-day economy-class rental car, a TNC ride (not to exceed $3.50 per ride), carsharing or transit ticket (public bus or Metrolink) to get them to their destination. Depending on each employer's internal GRH policy, either the employer or the employee will pay up-front for the employee's selected emergency ride. Once a valid receipt from the service provider (taxi/rental car/Metrolink, TNC, carsharing or transit agency) is provided, the employer completes and submits a GRH Reimbursement Claim Form to the GRH office within 30 days of the GRH usage date. The GRH office will review the GRH Reimbursement Claim Form. Upon approval, the GRH office will send the reimbursement check to the employer, who will then pass the reimbursement on to the appropriate party.

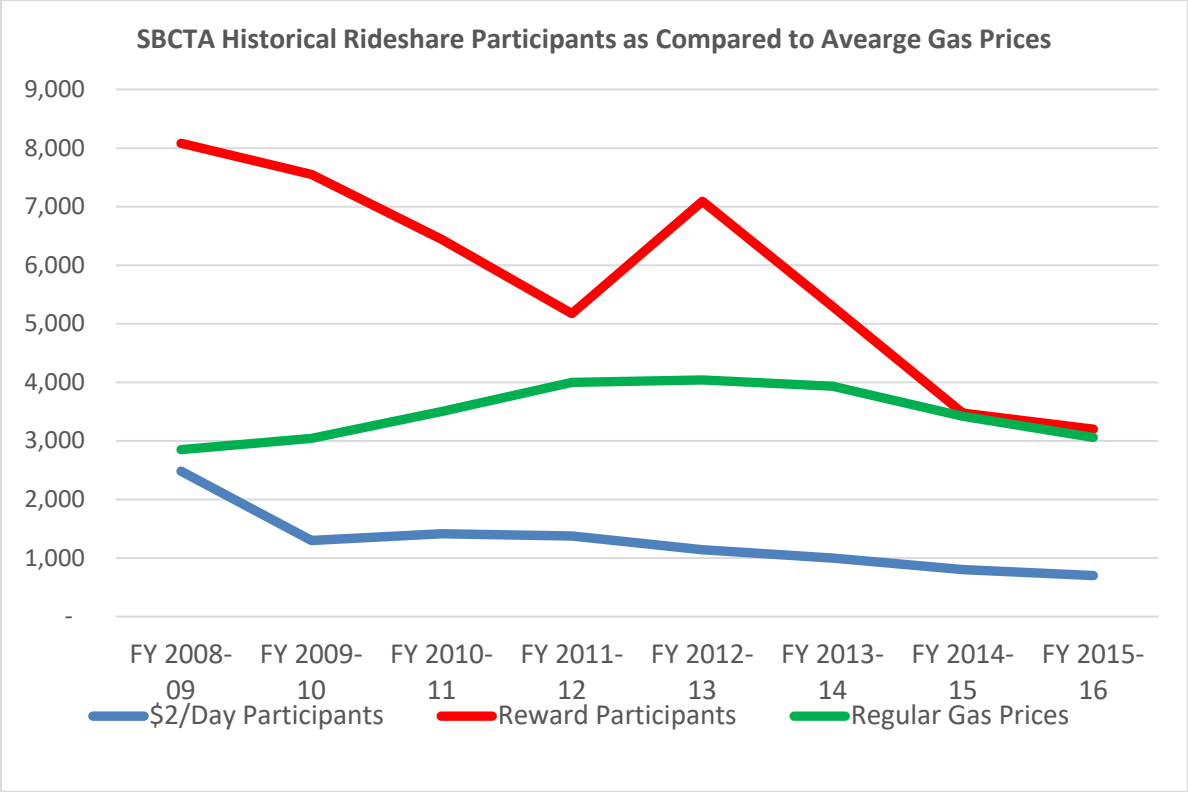
Emergency circumstances that qualify for a reimbursable ride home under the GRH program include: personal illness/emergency, unexpected illness/emergency of an immediate family member, carpool/vanpool driver has an emergency or unexpected overtime, and/or a supervisor requires employee to work unscheduled overtime.

Program Trends

As mentioned above, the Rideshare Program has seen a decline in participation over the past few years, which may be attributed to the continued decline in fuel prices, as well as the ability of residents to obtain California driver licenses and seek out new commute alternatives that were otherwise unavailable (impact began in January 2015). When overlaying historical rideshare participation with the recent decline in fuel prices, a corresponding decline in ridesharing participation can be seen. The other impact that is difficult to quantify, is that commuters who are ridesharing choose not to join formal incentive/tracking programs and therefore their impact is difficult to quantify. Also, the ability of commuters to find rideshare arrangements without government assistance through Craigslist or participation in a TNC, such as Uber or Lyft, is impossible to quantify or trend as well. But these are real impacts that can also attribute to the downswing in formal rideshare program participation. Figure 37 depicts the program participant rates in relation to average gasoline prices over the past eight years.

SBCTA staff also note that the program has gone through important changes in management in recent years, including transitioning from one long-standing contractor to a new one with some drop in participation during this period, as well as a change in the online tools and ridematching software.

Figure 37, SBCTA Rideshare Program Rates



VVTA Ongoing Vanpool Subsidy

A second vanpool program is operational in San Bernardino County and provides a significant choice to San Bernardino Valley employees who are residents and employees of the Greater Victor Valley and North Desert areas.

The FTA considers vanpool a public transportation mode when a vanpool is subsidized on an ongoing basis and meets certain FTA public transit requirements. The primary requirement is that the vanpool vehicles shall have a seating capacity of seven to 15 persons, including the driver. For inclusion in the NTD, it is considered mass transit service if it meets the requirements for public mass transportation and is publicly sponsored.[7] As a public transportation mode, FTA requires the reporting of vanpool ridership data into the NTD, similar to other public transit modes.

The San Diego Association of Governments (SANDAG) was the first CTC in Southern California to jumpstart an ongoing vanpool subsidy (1996). OCTA and LA Metro both started their ongoing vanpool subsidy programs in 2007. These agencies have documented that two years after reporting their vanpool statistics into the NTD, they generate a minimum of $2 in additional FTA Section 5307 funding for every $1 invested into the vanpool program. Some programs nationwide have claimed up to a 3:1 return in funding. Note

[7] 2014 National Transit Database Glossary:
https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/NTD_Glossary_2014.pdf

that all of these agencies permit vans that originate in the Inland Empire to join their programs as long as their worksite (termination point) is within their respective counties. Thus, for years, Inland Empire vanpools have benefited from these other programs; however, as a result, the revenue generated has not been returned to Inland Empire transit agencies. The impact of these programs to San Bernardino County is discussed further below.

Over the years SBCTA saw a major barrier in jumpstarting a permanent/ongoing vanpool subsidy — SBCTA is not a designated FTA funding recipient and is not an NTD reporting entity. To provide an ongoing vanpool incentive that can be self-sustaining through FTA funding, it was determined that VVTA was in the best position to fund and implement an ongoing vanpool subsidy program. The Greater Victor Valley area has one of the largest current vanpooling populations in the Inland Empire and VVTA is the designated FTA recipient for Victor Valley Urbanized Area. As a result, in the summer of 2011 VVTA applied for and successfully secured a FTA Livability Grant to jumpstart a permanent vanpool program. VVTA implemented its program in close partnership with SBCTA, who provided the local match to the FTA grant along with funding for administrative support.

The VVTA ongoing vanpool program was implemented in July 2012, and since that time the program has grown to subsidizing 196 vanpools (vehicles operated in maximum service as reported by VVTA to the FTA).[8] Designed after the OCTA and LA Metro ongoing vanpool subsidy programs, the program provides up to $400 per month to vanpools that either originate or terminate in the greater Victor Valley or North Desert Areas. Vans must be leased through one of their two leasing vendors (Enterprise or vRide), must travel at least 30 miles round-trip to and from work, and carry between five and 15 passengers. Upon approval, the vanpool must document its commute and statistics and report into an online system called iVanpool (http://www.ivanpool.org) each month to receive a reduction in their monthly lease costs.

Based on NTD data[9], Table 37 is a snapshot of the VVTA vanpool program since inception:

Table 37, Victor Valley Vanpool Program

Performance	FY 2012/13	FY 2013/14	FY 2014/15	FY 2015/16	YTD FY 2016/17 [10]	Comments
Peak vanpools	103	152	173	186	196	The largest number of vanpools operated during the fiscal year period
Total unlinked passenger trips	191,015	413,666	527,702	566,450	527,702	Like a transit trip, one passenger trip is counted for each passenger and driver as they travel to work; then another trip is counted as they travel from work to home

[8] FTA Monthly Module Adjusted Data Release as of January 2017, https://www.transit.dot.gov/ntd/data-product/monthly-module-adjusted-data-release
[9] NTD data found at: https://www.transit.dot.gov/ntd/transit-agency-profiles/victor-valley-transit-authority
[10] Based on FTA Monthly Module Adjusted Data, Year to Date (YTD) July 1, 2015 through Dec. 31, 2017

Performance	FY 2012/13	FY 2013/14	FY 2014/15	FY 2015/16	YTD FY 2016/17	Comments
Annual passenger miles	9,799,303	19,792,055	N/A	N/A	24,270,469	The VVTA online reporting system gathers this reporting feature by passenger and by trip
VVTA operating costs	$1,440,196	$2,887,485	N/A	N/A	$3,100,527	Total costs, including $400 per month ongoing subsidy per vanpool, as well as all administrative costs
Passenger costs	$1,132,646	$1,825,765	N/A	N/A	$1,844,251	All passenger/driver out-of-pocket costs, including the part of the monthly lease not covered by the monthly VVTA subsidy, fuel costs, etc.
Average one-way "fare"	$7.54	$4.41	N/A	N/A	$5.88	Calculated by taking passenger fares divided by unlinked passenger trips
Average round trip miles to and from work	N/A	98 miles	N/A	N/A	92 miles	Minimum program requirements are 30 round-trip miles to and from work

NTD data found at: https://www.transit.dot.gov/ntd/transit-agency-profiles/victor-valley-transit-authority.

When compared to other transit modes, vanpooling is an extremely cost-effective and low-cost transportation alternative for commuters that travel long distances to and from work. Based on national averages, the typical vanpool is on average an eight-passenger vehicle and carries on average six passengers. Based on VVTA's FY 2016/17 YTD averages, in a typical work month, the vanpool rider who travels 92 miles to and from work, 22 days per month, would pay out of pocket $192 per month (includes the VVTA subsidy). Per the www.CommuteSmart.info commute cost calculator tool,[11] to drive alone during the same period, the monthly cost of commuting alone is $1,148, assuming paying $2.75 per gallon for gasoline with an automobile that averages 20 miles per gallon.

VVTA Outreach to Commuters:

VVTA has used traditional methods to reach out to potential vanpool participants and works primarily through the large employers that are in their service area. Many of their vanpools are through the National Training Center at Fort Irwin, the Marine Corps Logistics Base in Barstow and the County of San Bernardino. All three of these employers not only have full-time/on-site ETCs who assist with vanpool formation, but the employers also provide additional incentives and other programs to encourage vanpooling. In fact, the

[11] The CommuteSmart.info Commute Cost Calculator is based on the Automobile Club of Southern California's Your Driving Costs for 2012, and can be found at this website: http://www.commutesmart.info/commute-cost-calculator.asp

federal Mass Transportation Benefits Program monthly subsidy of $255 can fund 100 percent of the monthly vanpool costs, including the lease, fuel and other out-of-pocket costs.

Other County Vanpool Subsidy Impacts to San Bernardino County Commuters

As noted earlier, for years San Bernardino County residents have benefited from OCTA and LA Metro vanpool programs, in that vanpools that terminate in Orange or Los Angeles counties are eligible for OCTA and LA Metro ongoing vanpool subsidies. By the end of 2016, OCTA had 510 vanpools in their vanpool subsidy program and there were 59 vanpools that either originate or terminate in San Bernardino County. LA Metro had approximately 1,350 vanpools in their program by the end of 2016, with 86 vanpools that originated in San Bernardino County and terminated in Los Angeles County. Table 38 presents a summary of the impacts of external county vanpool programs to San Bernardino County. The OCTA statistics were derived from OCTA's vanpool database; however, the LA Metro statistics were extrapolated from the LA Metro/OCTA Ridematching database (RidePro). Not all of LA Metros subsidized vanpools are contained or surveyed through RidePro; therefore, the actual number of LA Metro vans identified below is most likely underrepresented.

Table 38, Impact of External County Vanpool Programs

Program Origin and Destination	# of SB Vanpools	# of Passengers	Ave. Van Size	Ave. Pass. Per Van
Originate in Orange County and terminate in San Bernardino County	12	80	8	6.70
Originate in San Bernardino County and terminate in Orange County	47	332	9	7.06
Originate in San Bernardino County and terminate in Los Angeles County	86	516	7	6.00

Development of SBCTA's Ongoing Vanpool Program

Based on the success of the vanpool program as developed by SBCTA and VVTA, in 2014, SBCTA conducted a Vanpool Feasibility Study to determine if there were opportunities to expand the program countywide. The study conducted an extensive review of ongoing programs in Southern California, took an inventory of existing/known vanpools in the county, and developed an extensive budget and projection of vanpool growth. The study estimated that by the end of the first year of operations, approximately 128 vanpools would be subsidized, growing to 168 vanpools by the end of year two and 219 vanpools by the end of year three. The program growth was based on month-over-month growth as experienced in Victor Valley and is contingent upon aggressive outreach and marketing and a slowly improving economic climate. The initial results from the inventory of known vanpools concluded that the current number of vanpools in the county outside of the VVTA vanpool service area is quite promising in regards to beginning an ongoing vanpool subsidy program.

The study and a program budget were brought to the SBCTA Board for review and approval on Nov. 5, 2014. As a result, the SBCTA Board allocated $4 million in CMAQ funding to develop and jumpstart an SBCTA vanpool program and provide costs for a three-year period. It is anticipated that by the third year of implementation, the FTA Section 5307 funding returned to the program will be more than sufficient to sustain the program on an ongoing basis. The Section 5307 funding generated may be used for ongoing subsidies, staff administration, asset management and contract assistance.

As SBCTA Is not an FTA Direct Recipient, SBCTA and Omnitrans developed a Memorandum of Understanding so that SBCTA may become a subrecipient of the CMAQ funding. That MOU was executed and in April 2016, SBCTA began to develop the program. Since that time, SBCTA has hired a consulting team to develop and implement the program. SBCTA has also released request for proposals (RFPs) for the vanpool leasing vendors and for a consultant to develop an online application, reporting and database system for program administration. An RFP to hire a consultant to develop a marketing plan and provide outreach will be released in late spring 2017. Assuming that the online system application/reporting consultant will start work in the summer of 2017, it is anticipated that the program will launch and begin subsidizing vanpools on an ongoing basis by late 2017.

Outreach to Commuters

A key component to this SBCTA vanpool program will be to develop a marketing plan that will strategize new ways to reach long-distance commuters, in addition to traditional methods (through employers). SBCTA will hire a marketing firm to develop a marketing plan and also invest in advertising and outreach mechanisms to reach as many potential participants as possible.

Past Studies

The last evaluation of the SBCTA and RCTC Rideshare Incentive and Rewards program was conducted in 1999, by Strategic Consulting & Research (SCR). This study was conducted through 400 surveys of Incentive and Rewards participants, as well as interviews with 50 ETCs at participating employers in both counties. Key findings of this evaluation while somewhat dated, still have relevance to this assessment and include:

- 70 percent of incentive participants stated the program had some or a major influence on their decisions to rideshare, with 33 percent of the Incentive participants stating that the incentive had a major influence on their decision to not drive alone.
- 87 percent of incentive participants continued to share rides after the trial period, for an average of 10 additional months.
- The primary reasons for trying ridesharing (in the incentive programs) were to save money, as well as reduce stress and congestion.
- 87 percent who carpool or vanpool, do so with co-workers.
- Even though the incentive program requirements stated that they had to be driving alone prior to participating, 29 percent stated that they were sharing rides prior to the program.
- Profile of those surveyed: 64 percent were female, 60 percent were in their 30s or 40s, 60 percent were Caucasian, 59 percent were employed in a technical or professional capacity with mean household income of $51K.
- 84 percent of reward participants indicated that the reward had no or a minor influence on travel decisions.
- The primary reason for stopping ridesharing included losing a carpool partner or a change in work schedule.

4.9 Transportation Network Companies, Taxis and Information Tools

Transportation Network Companies (TNCs)

Transportation Network Companies (TNCs) have become a viable means of travel in recent years. With the prevalence of smart phones, mobile applications such as Lyft and Uber function as a ride-hailing service for travel almost anywhere in the region. In September 2013, the State of California Public Utilities Commission adopted its first set of rules and regulations to TNCs, which the Commission defined as "an organization whether a corporation, partnership, sole proprietor or other form, operating in California that provides prearranged transportation services for compensation using an online-enabled application (app) or platform to connect passengers with drivers using their personal vehicles" (PUC 13-09-045). Exemptions to this definition exist, such as nonprofit organizations, as clarified by the PUC. The purpose of this first set of rulemaking is to ensure public safety. Subsequent rules were issued on April 2016 for vehicle inspections, vehicle dress, data reporting and stringent background checks for services that transport unaccompanied minors, such as Hop Skip Drive.

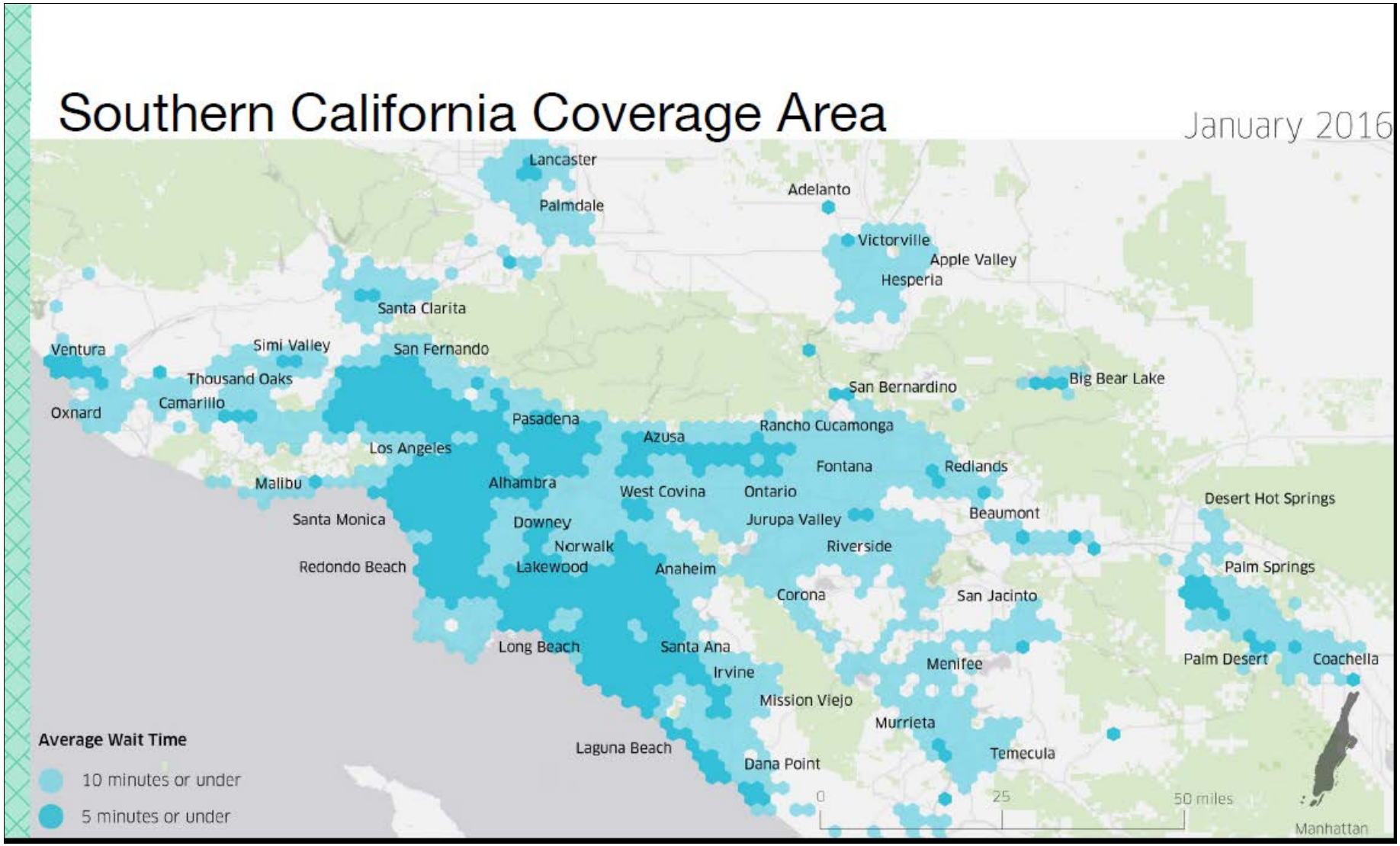
TNCs as First-/Last-Mile Solution

Many agencies in the Southern California region are exploring the potential opportunity to use TNCs as a first-/last-mile solution connecting to rail transit and commuter rail services, specifically the Metrolink stations. Elsewhere in the U.S., some public transportation agencies are beginning to experiment with using TNCs as a form of alternative transportation to connect to the conventional public transit system. These experiments are too new for any useful results to be generated yet, although it is noteworthy that these services did not immediately begin generating large numbers of users.

Uber and Lyft Services Available in San Bernardino Valley

In the San Bernardino Valley region, both Uber and Lyft have a significant presence. Coverage maps obtained from each company show that almost all of the significantly populated portions of the Valley are served by both TNCs. Western San Bernardino County — Ontario, Upland, Rancho Cucamonga — appears to have somewhat higher service levels than the area from Fontana east to Redlands and encompassing the City of San Bernardino. Uber's coverage map, Figure 38, shows that the West Valley subregion has many local areas with average wait times of 5 minutes, whereas the East Valley subregion is characterized by mostly 10-minute average wait times.

Figure 38, Uber Presence in Southern California



Based on the information provided by Uber and Lyft, it seems likely that reasonably good TNC service is available to and from all of the Metrolink stations in the San Bernardino Valley. Assuming that much of the demand for first-/last-mile service to Metrolink stations is for trips of 3 miles or less, the cost of TNC trips of 2 to 3 miles was obtained. It bears noting that there is a minimum cost of Uber and Lyft rides, and trips less than 2 miles in length will incur the minimum cost. The cost of TNC rides of 2 to 3 mile ranges from $6 (for 2 to 2.5 mile rides, for which the cost is usually the minimum cost of about $6) to $6-8 (for 3-mile rides). While these are lower than typical taxi costs, they are still a significant cost for a middle-class person if they are incurred on a regular basis. It would be expected that very few Metrolink riders use the TNCs on a daily basis to connect to the commuter rail station they use given the prevalence of free or low cost parking and the cost of the TNC service.

Metrolink's Use of TNCs on Its Mobile App

This summary of Metrolink's efforts to include TNCs on its mobile app is derived from interviews and research conducted as part of SBCTA's RIDESHARE OPPORTUNITIES TO CONNECT METROLINK SERVICE TO ONTARIO INTERNATIONAL AIRPORT recently completed study (published on June 3, 2016). Metrolink is exploring the option of including the ability to request a TNC ride on Metrolink's mobile application. Metrolink's app would include a feature that allows a user to select from several choices in order to connect to a transportation service upon arriving at their destination station; these choices would include Lyft, Uber and taxi providers. Once they select a provider on the app, the user will be directed to the company's app or website to schedule the trip. The study indicated that Metrolink anticipates that this feature will be available by mid-2016. This capability has recently been implemented.

The Ontario Airport—Metrolink study concluded that there was some potential for TNCs to connect the Metrolink stations near Ontario Airport — notably Rancho Cucamonga and Upland — with the airport itself. However, anticipated trip volumes were relatively low for this situation of first-/last-mile access between the airport and Metrolink. If the TNC service were subsidized, low-/moderate-wage workers at the airport might find the service attractive and some reasonable level of usage could be anticipated. But daily trip volumes would be expected to be relatively modest.

Taxi Services

The survey of San Bernardino Valley cities' public works directors revealed that few had any meaningful information on taxi services in their city. The largest taxi company in the San Bernardino Valley is Yellow Cab/Bell Cab of San Bernardino, which reports 170 taxis on its website. It apparently also serves adjacent communities, but it is difficult to obtain more detailed information without interviews with the company or informed local government sources. San Bernardino Yellow Cab/Bell Cab has provided service under contract to public authorities in the past and appears to be the most capable taxi organization in the Valley.

It is not known how Yellow Cab has been impacted by the advent of the TNCs (although, as with other taxi companies, the impact is likely to have been adverse). It is also not known how much interest Yellow Cab has in providing services under contract to Omnitrans or other public transit entities, or participating in services that would involve subsidies for passenger trips.

Additional taxi companies in the region include: Checker Cab/AA Inland Empire Cab, American Cab and Redlands Cab Company. Cities within the county may play a role with taxi/ride hail certification, licensing

and regulation by requiring a small licensing fee for the company or drivers, driver background check by the police department, or service permit, driver's permit and business license.

Existing Information Portals and Trip Planning Features

Shared-ride customers have a number of options to retrieve information on a potential trip, including via TNCs or taxis. The ability to discover transportation options and create a "trip plan" requires knowledge of the transportation system, from the street network, bus schedules and destinations. Coordination among all these "systems" can be a daunting task. Improved technology and access to information through smart phones has made information gathering and information consolidation possible. Yet, with a number of websites out there, agencies and services that provide "one-stop" systems are increasingly prevalent, available and even critically important. The following provides the information portals and transit system information amenities that help customers to create a trip or find out what transportation options are available in the San Bernardino Valley.

Trip Planners

Most transit operators operating in the San Bernardino Valley provide trip planning tools on the agency's website. Trip planning is possible through a transit agency's participation in the General Transit Feed Service (GTFS). GTFS allows for the collection of public transit trip information in a standardized format, an open source data structure that enables its use across software programs and applications. This is critical to trip planning, for example via user queries in Google Transit as to how to use transit to travel between points.

SBCTA has historically paid for the collection of GTFS data through a joint contract with RCTC. It's the management and transmission of this data to Google Transit such that enables the public to get accurate transit information. In addition to Google Transit, there are two organizations providing trip planning functions on the agency's website, available to San Bernardino travelers.

IE511.org

IE511.org is a resource that allows potential shared-ride users the opportunity to gather travel information in Southern California with a specific focus on the Inland Empire. Users calling from a landline with an Inland Empire area code (i.e., 909, 951, 619 and 760) will be able to contact the organization for travel information. Cell phones can dial 511 within the Inland Empire to get a hold of IE511. This service provides real-time traffic information with traffic incidents and driving times throughout Southern California. On the website, there are links to construction information and delays, bus and rail trip planning, specialized transit information for Inland Empire communities, rideshare information, park-and-ride lot information, a map of existing HOV lanes and employer services for businesses interested in ridesharing programs. Mobile applications are available for both Apple IOS and Google Play for Android.

211VetLink.org

The 211 VetLink Trip Planner tool allows veterans and other community members an opportunity to find transportation options in the Inland Empire. Members must signup and answer a brief questionnaire meant to determine eligibility for specialized transportation service such as Omnitrans Access service. Once a member, a customer can input travel information and receive transportation options ranging from shared-ride services or taxi and ride-hailing services, such as Uber.

Metro Trip Planner

LA Metro's Trip Planner provides trip planning capabilities for those living in Southern California. The current version of the website indicates that there are 70 regional partners where routes, fares, stops and schedule data is integrated into Trip Planner. Omnitrans is the only San Bernardino County transit provider whose data is integrated into the website. Passengers can go to socaltransport.org and enter trip information and destinations under the "New Trip" tab to get information on routes, transfers onto other regional partners if needed, trip fare information, total trip time and total trip distance. In addition, the website provides a comparison of transit fare costs and driving costs based on AAA estimate of $0.541 per mile.

Real-time Bus/Rail Information

With transit system improvements, such as automatic vehicle locator technology and public transit vehicle transit systems using global positioning satellite (GPS) information, transit agencies can now provide real-time transit vehicle information to its customers. A number of transit agencies can now communicate to customers and passengers of vehicle arrival times, system delays and important information that enhances the customer experience.

Metrolink was one of the first agencies to provide electronic signs at a number of transit stations that informed passengers for system delays. Now, a Metrolink app is available on mobile devices that notifies passengers of train delays, service alerts and trip advisories. Just recently, the Metrolink app includes a feature that allows passengers to purchase train tickets on the application thereby reducing the need to purchase a pass at a Metrolink ticket vending machine or authorized pass sales location.

Omnitrans also provides real-time transit electronic signs at all sbX stations. Moreover, passengers can retrieve real-time arrival bus information through a mobile device at every Omnitrans bus stop. Branded as Omnitrans NexTrip, the application uses the NextBus GPS tracking system to provide Omnitrans passengers with real-time bus information and notifications through a mobile device. Passengers can scan a Quick Response (QR) code at a bus stop to retrieve information on when the bus is predicted to arrive at that specific stop. A text feature also allows passengers with a mobile phone to receive text alerts of route arrival times. Finally, an Interactive Voice Response (IVR) feature allows passengers to receive real-time information on the phone without needing to speak with a customer service representative.

Foothill Transit, OCTA, RTA and VVTA also have systems in place to notify passengers when the next bus will arrive.

Apps

Mobile phone applications, commonly known as "apps," are developed by independent software developers and are quickly becoming the preferred way for transit users to discover multimodal trip options and step-by-step directions for information for multiple transit agencies. When transit providers partner with these third parties and make their data available through "open-source" capabilities, many apps can also provide real-time arrival and departure information. The following list explores several of the most advanced and popular trip-discovery applications in use today.

Omnitrans

Omnitrans developed an app that provides route information, NexTrip information, and agency news and information. In addition, the app provides links to Lyft and Uber services. The Omnitrans app is available on both Google Play and iTunes free of charge.

Metrolink

Similar to Omnitrans, Metrolink has developed an app. However, Metrolink allows passengers to purchase tickets, ranging from one-way to a monthly pass, on the app itself. Passengers can present the ticket to a conductor using their phone, thus eliminating the need for a paper ticket. However, the absence of a paper pass can make it difficult to transfer onto other services, especially in the Los Angeles area where TAP cards are used. In addition to being able to purchase a ticket, the Metrolink app provides schedule information, service alerts and pertinent links to the Metrolink website.

Google Transit

Within Google Maps, Google Transit allows users to view public transportation options. By combining schedule and route data with the power of Google Maps, transit information is easily accessible to millions of Google users in dozens of languages, on both desktop and mobile devices. All San Bernardino County providers provide their data to Google Transit.

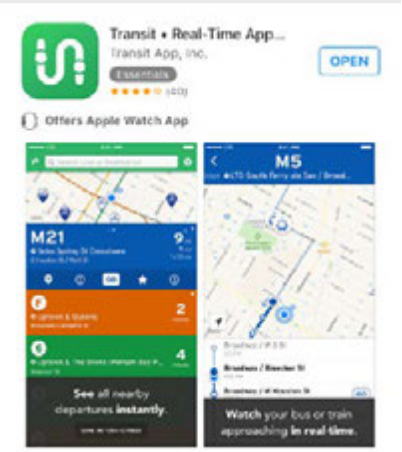
RideAmigos

The RideAmigos platform is a trip planner providing access to multimodal transportation options, including public transit, ridesharing, vanpooling, walking, cycling and more. It also provides complete survey management, distribution and analytics tools and GIS reporting tools for administrators. RideAmigos has created transportation management associations and specific demand management systems or carpool matching programs for government organizations. Of particular relevance, RideAmigos makes it possible to match riders and drivers across nearby (but different) employment centers making ridesharing possible for more people. RideAmigos is in the process of establishing a pilot at Loma Linda University Medical Center.

RideShark

The RideShark mobility management system is a travel options portal where users can instantly find information on various options to get to their destinations. Included in search results will be carpool partner matches for driver or passengers, options for vanpools, bike and bike buddies, walking and walking buddies, and transit and transit buddy matching, all integrated with Google to show the best route. The trip logging calendar allows people to log their sustainable trips. Each trip logged calculates detailed emissions, cost and health impacts. RideShark is not yet supported by any providers in San Bernardino County.

Transit App



Transit App is a popular multimodal transit planning tool that is easy to use and well designed. The App provides transit options and departure times for nearby lines and has integrated Uber, carshare, bikeshare and bike paths where they are available. Transit information for most of San Bernardino County's providers is available on Transit App (The Morongo Basin region is not yet supported by the app.). However, as they have not yet partnered with Transit App to make their data available, departure times may not be accurate.

Moovit

A multimodal trip planner, Moovit discovers the best routes by allowing the user to compare transit options, get detailed directions, view live arrival and departure times, and receive live alerts and advisories. Moovit is not yet supported by any cities in San Bernardino County.

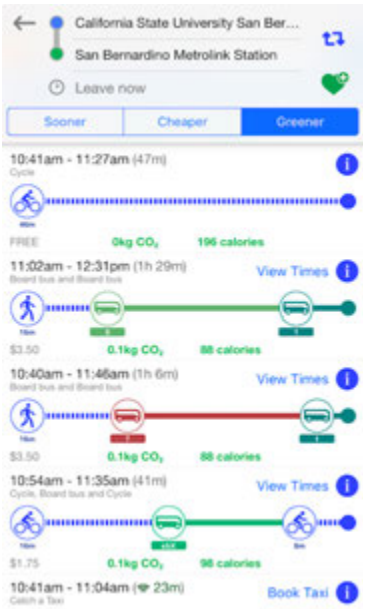
Citymapper

Citymapper is designed for the city commuter who wants to use only one app. It provides multi-modal, step-by-step directions with live/real-time routing that updates every minute. Citymapper can be integrated with many other apps to provide the best information for the user. Citymapper is not yet in San Bernardino County.

Route Shout

Route Shout allows the user to know the next bus is coming from their mobile phone. This app provides real-time information about the nearest bus, bus stops and its location. Additionally, the user can see bus times for multiple agencies. Mountain Area Regional Transit Authority is using Route Shout to provide real time information for its riders.

Swiftly



Swiftly provides riders with accurate real-time transit arrival information, multimodal trip planning, contextual service advisories, reports from other riders and live maps. Swiftly allows users to analyze real-time pricing and travel times across various modes of transportation, including public transit, rideshare, scootershare, biking, walking and others. This app is not yet supported by providers in San Bernardino County.

Go LA

The Go LA app integrates all available transit options to provide the fastest, cheapest and most sustainable way to travel and park. This multimodal platform allows the user to compare multi-provider trip itineraries and will eventually allow one-click booking and payments. Go LA currently provides trip planning throughout San Bernardino County.

Ride Report

Ride Report automatically tracks the users' miles, maps routes and earn ride streaks for users' daily errands and commutes. Every trip a user logs creates anonymous, open-source traffic data that helps riders, advocates and planners.

OpenTripPlanner

OpenTripPlanner (OTP) is an open source platform for multimodal and multi-agency journey planning. The app is truly multimodal, allowing users to search for itineraries including pedestrian, bike, transit and car components. OTP had become the routing engine behind several popular smartphone applications.

Healthy Communities: San Bernardino Countywide Vision 2bactive

A Healthy Community promotes a positive physical, social and economic environment that supports the well-being of its members. It includes healthy schools, walkable communities, transportation options, parks/open space, adequate housing and access to health care. The San Bernardino Countywide effort works to improve the health and well-being of all county residents by creating healthy environments and promoting healthy life choices.

In 2006 San Bernardino County created the Healthy Communities program as a central point of contact for health-related issues throughout the county. The program provides technical assistance to communities throughout the county, giving specific policy and environmental recommendations. The county collaborates on multiple projects throughout the region, partnering with schools, community and faith-based organizations, public and private agencies, and city governments to improve health in local communities.

Table 39 details the Healthy Communities of the San Bernardino County, specifically those within the study area. This Countywide effort works to improve the health and well-being of all county residents by creating healthy environments and promoting healthy life choices. These programs focus on improving access to and education about a healthy lifestyle. While these are largely city-funded initiatives, some have received additional funding through First Five, United Way and other private and non-profit grants. These programs also feature private and nonprofit partnerships, partnerships with universities, and, for several cities, ongoing community engagement. San Bernardino County's Healthy Communities include these 12 Projects:

1. Healthy Chino
2. Healthy Hills (Chino Hills)
3. Healthy Colton
4. Healthy Fontana
5. Healthy GT (Grand Terrace)
6. Healthy Montclair
7. Healthy Ontario
8. Healthy RC (Rancho Cucamonga)
9. Healthy Rialto
10. Healthy Upland
11. Healthy Yucaipa
12. Healthy San Bernardino

Table 39, Healthy Communities in the San Bernardino Valley

Logo / Name	City	Mission and Goals	What is it: Programs and Initiatives	Webste
Healthy Chino	Chino	Improve the lives and well-being of the community from a multipronged approach: a combination of nutrition, active living, physical and mental health, environmental health, and smart growth practices.	Bark Around Ayala Park; Children's Discovery Workshops; Chino Bike Day; Chino Community Garden; Earth Day; Garden Workshops; Health Center; Healthy Family Day; Hike the Valley; Nutrition & Cooking Classes; Storytime in the Garden.	http://www.healthychino.com
Healthy Hills IT'S A LIFESTYLE	Chino Hills	Encourages residents to work together to keep our city clean, vital, diverse, and safe. develop programs that support healthy lifestyles for our residents; Define health priorities and improve the quality of life in Chino Hills using the following criteria: Health & Wellness, Community Beautification, Active Lifestyle, Lifelong Learning, Family Wellness. Mission: Healthy Hills supports programs and services that emphasize healthy minds, bodies, and spirits in order to promote a positive quality of life and develop a well-rounded community.	Hiking days, tree planting events, and healthy recipe give-aways; UW grant to families to purchase healthy food at farmer's markets; Healthy Hills Steering Committee; Volunteers visiting seniors; Blood drives; Trails programs; Safe Routes to Schools; Seniors driving courses; Water Conservation Education Programs; Prescription dropoff programs; Fitness classes; Healthy and wellness classes; Volunteer opportunities; etc.	https://www.chinohills.org/index.aspx?NID=56
Healthy Colton	Colton	Working together for a healthy community; Commit to Fit; Connect to Nutrition.	Monthly transportation to Redlands Downtown Market Nights; Weekly walking club on Colton Bike Path; Weekly Nutrition 101 class at Library; Fitness in the Park events; Run/walk events; Food Day Fall Fiesta.	http://www.ci.colton.ca.us/index.aspx?NID=766
HEALTHY FONTANA	Fontana	Healthy Fontana is a lifestyle health program created to inform, educate, and change the way people eat, exercise, and live. Healthy Fontana encourages residents to make choices that will lead to a healthier lifestyle.	Exercise boot camps; Free healthy cooking classes; Healthy tips and recipes; Walking clubs; Wellness programs for local businesses.	http://www.fontana.org/1328/Healthy-Fontana
Healthy GT It's a Lifestyle!	Grand Terrace	Healthy GT encourages a healthy and sustainable lifestyle for residents and visitors to our beautiful city. Healthy GT is developing a wide range of programs, policies, infrastructure and events to help build and maintain healthy minds, healthy bodies and a clean and sustainable earth.	Zumba classes; Get Ripped classes; Conducting Health Survey to plan how to improve community's health over next five years.	http://healthygt.com/
HealthyMontclair	Montclair	Healthy Montclair focuses on improving access to physical activity, nutritious food and appropriate health care, in addition to serving as a resource for the community to learn about Montclair's healthy places to live, work, learn and play.	Community Fruit Park; Certified Community Farmers Market; Community Garden; Por La Vida Health and Nutrition Classes; Medical Clinic.	http://www.cityofmontclair.org/depts/human_services/hm/default.asp
HEALTHY ONTARIO	Ontario	The Healthy Ontario Initiative is long-term umbrella initiative that aims to improve community health through collective impact. Its mission is to empower the community of Ontario to take ownership of its health and to make Ontario a model for healthy communities by improving physical, social, environmental, and economic health and well-being. Focus on four main areas: 1) Prevention & Wellness 2) Access to Healthcare 3) Education & Life-Long Learning 4) Safe & Complete Neighborhoods.	Healthy Ontario website lists resources for each of the four main areas. Current initiatives include: Kaiser HEAL Zone, Build, Let's Move!, Healthy People 2020, Choose My Plate, Champions for Change Promise Scholars, Vital Signs, HEAL Cities Campaign.	http://www.behealthyontario.com

Table 39, Healthy Communities in the San Bernardino Valley (Continued)

Logo / Name, Continued	City	Mission and Goals	What is it: Programs and Initiative	Webste
	Rancho Cucamonga	Healthy RC is a comprehensive approach to developing a wide range of programs, policies, infrastructure, and events to help build and maintain healthy minds, healthy bodies and a clean and sustainable earth, including developing policies that make the healthy choice the easy choice and programs that provide knowledge and skills for a healthy lifestyle. Health priorities include: Healthy Eating & Active Living; Community Connections & Safety; Education and Family Support; Mental Health; Economic Development; Clean Environment; Healthy Aging; Disaster Resiliency.	Safe Routes to School; Healthy RC Kids; Mental health resources; Development of a Sustainable Community Action Plan; and Implementing health-related policies: Community Gardens, Complete Streets, Farmer's Markets, Healthy Nutrition & Beverage Standards, Lactation Accomodation, Smoke Free RC.	https://www.cityofrc.us/websites/healthyrc/default.asp
	Rialto	Healthy Rialto programs are designed to enrich and empower the lives of the people in our community. Healthy Rialto is dedicated to providing innovative and proactive solution to everyone that has the desire to get fit, stay healthy and pursue happiness. Its mission is “To promote community wellness and wholeness through education, resources and activities.”	Farmer's Markets; Walking programs and trails; Adopting the Healthy Eating Active Living resolution; Bike Rodeo and Ride events; Part of the national "Let's Move!" campaign.	http://yourrialto.com/city-hall/departments/city-clerk/healthy-rialto/
	Upland	Healthy Upland is a commitment to the community to improve the health and livability of our citizens by encouraging active involvement through recreation and health & wellness programs, events, services and resources. Features include creating a more active and healthier community and developing health and wellness programs.	Participant of the National Recreation and Park Association "Step Up To Health" campaign; Historic Upland Walking Tours; Baldy View Dog Park; Share The Trail - Etiquette & Safety Tips; Hands-Only CPR classes through Fire Department.	http://ci.upland.ca.us/#Healthy_Upland
	Yucaipa	The Healthy Yucaipa Committee strives to make the City of Yucaipa a healthy place to live. It encourages residents to eat healthy, be active, and protect their mental well-being by caring for themselves.	Healthy Yucaipa Committee; Active Yucaipa Resident Program; Nutrition Tip of the Month Program; Activity Tip of the Month Program; Self Care Tip of the Month Program.	http://yucaipa.org/residents/healthy-yucaipa/
	San Bernardino	Healthy San Bernardino’s Vision is for an active, engaged, and prosperous city with green and safe public spaces supporting healthy diets & lifestyles. This incorporates: Access to healthy food; Safe streets and public spaces; Schools, parks and open spaces; Clean and healthful environment for residents of all neighborhoods; Access to appropriate healthcare, wellness, and prevention programs; Economic stability and quality educational and employment opportunities.	Development of the Healthy San Bernardino Coalition; Creation of four Health Hubs; Environmental Scan; Walkability Assessment; Photo Voice Project; Community Garden; Supporting Ordinances.	

5. DESCRIPTION OF FUTURE TRANSPORTATION FACILITIES

SBCTA, Omnitrans, Metrolink and local jurisdictions continue to plan, develop and build projects and programs that can further improve transportation services in the region. For the purpose of the EXISTING CONDITIONS WORKING PAPER, existing shared ride services and possible connections between different modes are presented in Table 40. Consumers and public agencies can find that connectivity currently exists between public transit, rideshare services and active transportation modes. As the following projects come to fruition, agencies must ensure that consumers can connect to new transportation investments and that opportunities to streamline connectivity should be considered.

Table 40, Planned Future Transportation Facilities

Future Transportation Facilities				
Mode	**Agency**	**Project**	**Project Description**	**Project Completion**
Rail	SBCTA	Redlands Rail Phase I	Redlands Rail service; Extend Metrolink rail service from San Bernardino Transit Center to University of Redlands (9 miles). [1]	Near term (0-5 years)
	SBCTA/Metro	Gold Line extension (Montclair)	Gold Line light rail extension from Los Angeles/San Bernardino County line to Montclair.[1]	Mid-term (6-10 years)
	SBCTA	ARRIVE Corridor	Transform Metrolink stations into major destinations with higher density mixed-use development. Provide higher frequency service along rail corridor potentially switching to DMU. [2]	Long-term (10+ years)
High Occupancy Vehicle Lane/Express Lanes	SBCTA	I-10 Corridor Express Lanes Phase I	On I-10 from San Antonio Avenue to I-10/I-15 interchange: two express lanes in each direction.[1]	Mid-term (6-10 years)
	SBCTA	I-10 Corridor Express Lanes Phase II	On I-10 from I-10/I-15 interchange to California Street: one express lane in each direction.[1]	Mid-term (6-10 years)
	SBCTA	I-10 at Haven (Ontario) to Ford Street (Redlands)	Add one HOV lane in each direction.[1]	Mid-term (6-10 years)
	SBCTA	I-15 from Cantu Galleano Ranch Road (Eastvale) to SR-210	I-15 Express lanes: construct one new express lane in each direction. RCTC to construct additional express lanes increasing the number to two express lanes in both directions.[1]	Mid-term (6-10 years)
	SBCTA	I-10 at Ford Street to Riverside County Line	Add one HOV lane in each direction.[1]	Long-term (10+ years)
	SBCTA	I-15 from I-15/I-215 interchange to US-395	I-15 Express lanes: add two express lanes in each direction.[1]	Long-term (10+ years)

	Agency	Project	Project Description	Project Completion
	SBCTA	I-15 from SR-210 to I-15/I-215 interchange	I-15 Express lanes: add one express lane in each direction from SR-210 to Duncan Canyon Road and two express lanes each direction from Duncan Canyon to I-215.[1]	Long-term (10+ years)
	SBCTA	SR-210 from I-215 to I-10	I-210: Add HOV lane from I-215 to I-10 [1]	Long-term (10+ years)
	Caltrans	I-215 from SR-210 to I-15	I-215: Add one HOV lane in each direction.[1]	Long-term (10+ years)
Mode	**Agency**	**Project**	**Project Description**	**Project Completion**
Bus	Omnitrans	Yucaipa/Redlands Express (Route 208)	New express route from Yucaipa Transit Center to San Bernardino Transit Center reducing travel time from 116 minutes to 49 minutes. [3]	Near term (0-5 years)
	Omnitrans	OmniGo Ontario Airport Service	Develop an OmniGo Ontario Airport service but will not become operational until a partnership between Omnitrans and the Greater Ontario Convention and Visitors Bureau is formed. This service will provide connectivity between Ontario Airport and the Rancho Cucamonga Metrolink Station.[3]	Near term (0-5 years)
	Omnitrans	Smart fare media	Implement regional compatible smart fare media system.[4]	Near term (0-5 years)
	Omnitrans	West Valley Connector (BRT)	A limited stop rapid bus service that travels east-west through the cities of Pomona, Montclair, Ontario, Rancho Cucamonga and Fontana. A north-south segment exists along Milliken Avenue in Rancho Cucamonga and Ontario. A total of 27 enhanced stations are proposed along the alignment and bus will benefit from transit signal priority (TSP) applications. [5]	Mid-term (6-10 years)

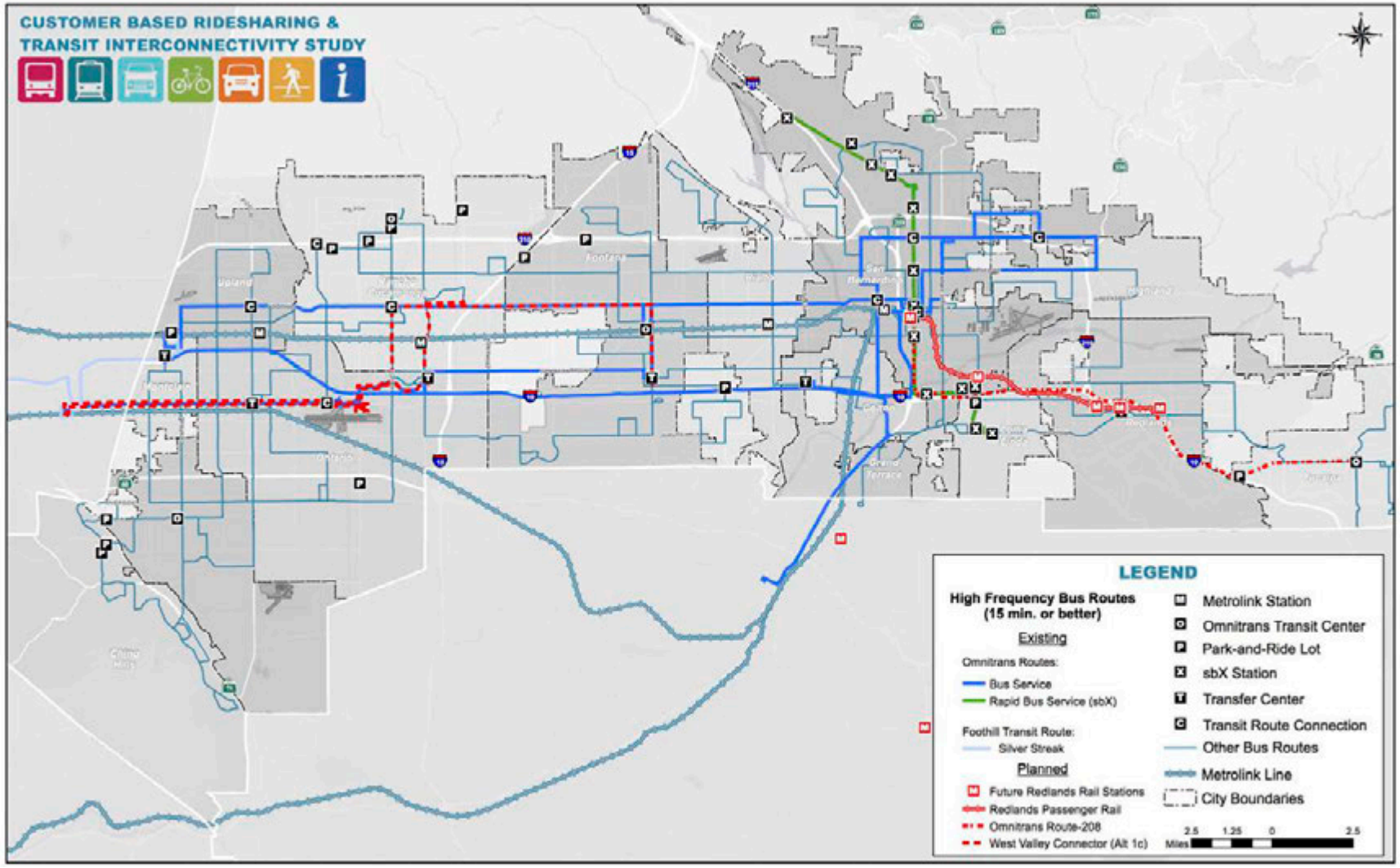
Notes:

[1] Project descriptions are from SCAG's 2016 RTP/SCS.
[2] Project description is from SBCTA ARRIVE Corridor Study.
[3] Project description is from Omnitrans FY 17 Annual Service Element.
[4] Project description is from SBCTA Countywide Transportation Plan.
[5] Project description is from Omnitrans West Valley Corridor Alternatives Analysis.

Figure 39 maps the three anticipated new services:

- **The West Valley Connector in the West End, traveling east-west through the cities of Pomona, Montclair, Ontario, Rancho Cucamonga and Fontana;**
- **The Yucaipa / Redlands Express Route, #208 traveling between the Yucaipa Transit Center to the San Bernardino Transit Center;**
- **The Redlands Passenger Rail service, connecting the city of Redlands with the San Bernardino Transit Center and Metrolink service there.**

Figure 39, Omnitrans Planned High Frequency Train/Bus Routes



Map courtesy of SBCTA

6. FUNDING FOR CUSTOMER-BASED TRANSIT AND TRANSPORTATION IMPROVEMENTS

6.1 Funding

This section identifies the major federal, state and regional funding sources that are currently eligible to be used for the types of "customer-focused" infrastructure and non-infrastructure elements that the SCAG Study will be exploring in greater depth. Such elements are defined in Table 41. This summary provides a broad overview of how funding streams currently flow through San Bernardino County, and what entities are responsible for programming them (e.g., SBCTA, the state, transit operators, municipalities, etc.). It also documents major discretionary investments in these types of elements over the past five years.

Overall, the AMMA Team and SBCTA staff together identified eight federal, three state and two regional funding programs, identified in Table 41. Most transportation funding flows to cities and transit operators, with some SBCTA role in programming.

Table 41, Current Funding from Federal and State Sources

Federal	Programming Entity/Process
Section 5307 — Urbanized Area Formula Funds	SBCTA allocates to Omnitrans; there is a discretionary portion above Omnitrans' expected amount.
Section 5311 — Rural Formula Program	All transit operators receive except Omnitrans; SBCTA allocates on population basis.
Section 5311f — Rural Formula Program	Caltrans awards funds on a discretionary basis.
Section 5310 — Enhanced Mobility for Elderly/Disabled	SBCTA reviews applications for consistency with Coordinated Plan; will issue a call-for-projects for the West Valley UZA; East Valley and Victor Valley will be conducted by Caltrans, with a three-year call to be released in January 2017.
Section 5337 — State of Good Repair	SBCTA
Section 5339 — Bus and Bus Facilities	Omnitrans receives all formula funds; VVTA receives Victor Valley UZA formula funds. FTA also awards funds on discretionary basis.
Congestion Management and Air Quality (CMAQ) Program Funds	SBCTA provides standard allocation to rideshare and IE511 program; CMAQ funds are fully programmed through 2024 for I-10 ExpressLanes project, CNG bus replacements; and the vanpool program.

Federal	Programming Entity/Process
Regional Surface Transportation Program (RSTP)	RSTP funds can be flexed to FTA for expenditure on transit or active transportation projects; however, Valley funds are dedicated to freeways. Mountain Desert area eligible uses are open.
State	
Transportation Development Act (TDA) Article 3 (LTF/STA)	SBCTA
Active Transportation Program (ATP) Statewide Competitive Funds (50%)	Caltrans (Discretionary)
Active Transportation Program (ATP) Regional Formula Funds (50%)	SBCTA may exercise some discretion in awarding regional formula funds but generally accepts Caltrans' application rankings.
Low Carbon Transit Operations Program (LCTOP)	SBCTA receives direct apportionment, divided between Mountain and Desert areas; funds also flow directly to transit operators that receive FTA funds (Omnitrans, VVTA, MARTA)
Regional	
Measure I Sales Tax Funds	SBCTA Board makes discretionary allocations for Traffic Management Systems, which is funded with 2% of Measure I revenue collected in the Valley Subarea. Omnitrans, as the new designated CTSA for the San Bernardino Valley (having recently absorbed VTrans), receives a direct share of Measure I funds that can be used to support transportation for elderly and disabled mobility enhancement projects.
AQMD Subvention Funds (Motor Vehicle Registration Fees)	SBCTA administers AQMD funds through a Call for Projects

Subsequent to the initial draft of this report, Senate Bill 1 (SB1) was signed into law. Titled as the Road Repair and Accountability Act of 2017, SB1 augments existing funding programs and creates new programs for the State. SB1 includes thirteen core programs that provide much needed revenue for the ongoing maintenance and improvement of the transportation network. Several programs in Table 41 such as ATP and the State Transit Assistance (STA) program will receive an infusion of funding through SB1. Other programs, such as the Congested Corridors Program or the Transit Intercity Rail Capital Program, provide funding through a competitive process and are intended to promote multi-modal travel through areas experiencing high levels of congestion on along regional corridors. Overall, the bill will invest over $54 billion over the next ten years to improve roads, highways, and the provision of public transportation.

6.2 Recent Discretionary Investments

SBCTA staff highlighted noteworthy discretionary investments in "customer-focused" infrastructure and non-infrastructure elements over the past five years:

1. SBCTA is sponsoring an expanded vanpool program for the San Bernardino Valley, building upon VVTA's existing vanpool program; a total of $4 million in CMAQ funds have been provided to cover the operating costs of the vanpool program for the first 3 years. It is hoped that an increased FTA Section 5307 apportionment will cover the program costs after 3 years.
2. The City of Rialto is expanding commuter parking facilities at its Metrolink station by 550 spaces using a combination of FTA Section 5307, Section 5309, State Proposition 1B Public Transportation Modernization, Improvement and Service Enhancement Account (PTMISEA), and LTF funds, at a total cost of $5.7 million.
3. SBCTA's Winter 2016 Call for Projects awarded $887,000 in TDA funds for pedestrian/bike facilities and $634,000 for transit stop access improvements.
4. In FY 2015, LCTOP funds were used for transit marketing, free bus passes and additional shuttle service serving airport area hotels.
5. In 2011, Riverside Transit Agency and Omnitrans won $10.8 million in discretionary FTA Section 5339 funds to purchase 21 new Dial-A-Ride vehicles and improve facilities in Riverside and Hemet where buses are maintained, cleaned and stored when not in use, and study expanding rapid transit service to 4th Street and Holt Boulevard in Ontario.

7. IN SUMMARY

This project seeks to increase access to and use of shared and active transportation options — including bus and rail services — in the San Bernardino Valley through improvements in interconnectivity and in the customer experience. This description of existing conditions provides a wealth of information about available options and resources. The capabilities described here reflect SBCTA's significant investment in building a robust network to support residents' and employees' mobility. Important themes emerge here and begin to suggest where strategies for strengthening customer support and access are needed. These also suggest opportunity for measuring the impact of strategies that may be implemented.

7.1 Themes Drawn from Existing Conditions

1. **Network navigation is daunting.**

   Identifying and using the array of available Valley shared and active transportation services can be intimidating to consumers. Simply determining where to begin a journey, for example, can be a daunting process. In addition to Metrolink, six regional public transit systems, including Omnitrans, serve the area. Each system has its own website, some with trip planners and each with specific language for describing services, scheduling, costs and fare payment methods. Limited integrated information makes for a complex and potentially confusing decision-making process.

   Navigating to any given destination is further complicated by challenges that arise in the last-mile trip. Although an exploration of way-finding strategies was not undertaken as part of this initial effort, it likely impacts the customer's confidence in using transit and rail services. Can I find my way? And while additional modes of rideshare and vanpool exist, connecting with these options — particularly outside the environs of one's own employment location — may be clear within some work settings but not others.

   Enabling customers to discover trip options available to them and how best to use these alternative mobility choices represents both a significant challenge and an opportunity.

2. Connectivity confusion inhibits use.

   When the train or bus doesn't carry a rider all the way to his or her destination, the process of determining what will allow for a successful connection — or transfer — can often be unclear to prospective transit users. This project has identified 65 nodes of interconnectivity within the San Bernardino Valley. Among these, Omnitrans has numerous locations with considerable transfer activity. To fully understand connections, users must navigate between multiple information sources and then, once more, determine answers to key questions about scheduling, location access, fare and payment.

   Some connections function better than others. Omnitrans' high-frequency routes connect with each other in more than a dozen instances. In other cases, a high frequency 10-or-15-minute service meets a 30-minute or even 60-minute local route. The result can be extended wait times and a longer-than-desirable trip. Moreover, if the traveler is not within line-of-sight of a transit connection, they may be unaware of transfer options that do exist. During the preparation of this deliverable, a key connection

did not surface on Google Transit's trip planner, which made for much more direct trip than the alternative.

Providing good connection information, that is reliable and complete, can support consumers' willingness to consider and then to use shared transportation.

3. Transit use is low, but rideshare and vanpool use is high in the San Bernardino Valley.

   The transit trips per capita rate of 10.2 in the San Bernardino Valley — while low — is still better than some other low-density, sub-regions in Southern California. The Valley's commute characteristics indicate transit mode share use at just 1.9 percent, considerably below the statewide mode share of 5.2 percent transit commute trips.

   Carpool and vanpool commuting rates, by contrast, are high at 13.8 percent versus 11 percent statewide. Clearly already a solution to some longer-distance commutes, this represents an opportunity for growth. Additionally, the Valley's bicycle commute mode share use is at 1.1 percent and taxi/motorcycle mode share is at 1.3 percent. All modes have potential for growth.

   That said, San Bernardino Valley's low-density, dispersed suburban environment makes convenient and competitive shared-ride transportation challenging. Victor Valley vanpool round-trip lengths in particular are 98 miles, reflecting the greater distances some travel to work within this region. Fortunately, addressing land use challenges remains a focus of SCAG, SBCTA and other regional partners, and this should ultimately contribute to long-term solutions involving the promotion of key corridors and the creation of incentives for transit-oriented development.

   Increasing the use of alternative transportation for some trips and some commutes, even modest increases in the raw numbers, will translate into trips not taken by automobile.

4. Market needs are varied and must be better understood.

   Work trips patterns revealed by data from the American Community Survey, Air Quality Management District and Omnitrans each suggest that the existing network of services does not always present an optimal solution for commuters. Trip demand patterns do not readily conform to the area's predominant east-west corridors, specifically Metrolink and various Omnitrans high-quality routes. Some north-south demand corridors exist in the West Valley and in areas of the East Valley, where higher speed transit is not yet available. On the other hand, less-than-optimal route/work trip alignments can open the door to new methods for improving first-/last-mile connections, and they can support increased emphasis on rideshare options. Furthermore, reverse- commute patterns, into San Bernardino and elsewhere, still need to be better understood.

   Further market definition regarding trip-length, trip types, such as work and non-work purposes, active transportation users and various temporal considerations will continue to be important. But equally, if not more important, is a richer understanding of consumer motivations.

   One such market that warrants continued examination is the Metrolink San Bernardino Line riders. Among full-time choice riders, this market is largely composed of minority, low-income part-time and self-employed workers who are likely to come from unbanked households.

Understanding the markets for use of public and shared-use transportation is critical, particularly in defining those circumstances when San Bernardino Valley commuters and residents will consider transportation other than driving alone.

5. New connections likely exist, including first-/last-mile opportunities.

   As travel corridors become better understood, new strategies can target assistance to specific travelers, helping them more easily complete their journeys from Point A to Point B. Flex or on-demand services can speed connections for the final trip leg, such as Denver's "Call 'n' Ride" service, for example, which operates at 21 light rail stations and features a mix of dedicated demand response vehicles complimented by Uber or Lyft services. Contracting directly with hail ride services to subsidize some trips, such as between rail and airport locations, may offer a cost-effective alternative to providing dedicated line-haul services in corridors where specific trip legs are not well-served.

   Opportunities may also exist at the formal park-and-ride lots where transit information typically is unavailable and transit connections are limited or non-existent. At the same time, the new IECommuter and its www.IE511.org branding for rideshare and vanpool is among the information portals that can help connect travelers with shared-use transportation choices.

   Expanding service options and information portals are both critical to creating new connections for riders and prospective riders.

6. Safety is a genuine concern in the San Bernardino Valley.

   Although only active transportation accident information was reported here, anecdotally it is apparent that San Bernardino travelers considering shared-ride transportation are concerned about personal safety. Apprehension is not unusual among new transit users or those who have never tried transit. However, these perceptions are compounded in the east end of the San Bernardino Valley, where public safety can be a legitimate concern and the experience for pedestrians and cyclists is shown to be less-than-safe. Developing and pursuing strategies for mitigating risks, finding funding for and instituting effective safety countermeasures and for communicating about these safety measures will be important to new and prospective riders, whether in public transit, shared-ride or active transportation.

7. **Bicycling has great potential to help transit.**

   The San Bernardino region's relatively low-density, suburban footprint is typical of communities that grew rapidly after World War II. As a result, walking can only meet the first-/last-mile needs for a fraction of the overall population. Bicycling, however, has potential to help many more people connect to transit on the beginning and/or end of their transit trip. Bicycling also can turn a two- or three-bus trip into a one-bus trip with bicycling first-/last-mile, thus accelerating travel time and improving reliability. This is particularly true if the single bus trip replaces a low-frequency route.

   Low-income workers may stand to benefit most from bicycle-enhanced transit, where this can reduce travel time, increase reliability and save money when compared to other options. Investment in bicycle-supportive services and infrastructure therefore represents a means for both improving transit among current users as well as attracting new ones.

Numerous challenges to realizing the transit-supportive potential of cycling exist. At present, with the exception of sbX buses, all other buses are limited to two, on-vehicle bike rack slots. If a rack is full, the user will have to wait for the next bus, and this can be burdensome if the traveler is on an infrequent route. Bike facilities at many employers in the region are limited. Bike share opportunities may be appropriate in some areas of the San Bernardino Valley. Wayfinding and site-specific maps can help some users identify bike routes and understand how these connect to the overall transit network.

Addressing safety concerns, from driver behavior to lack of infrastructure to vehicle speed/volume, as well as improving information tools can address reluctance to bicycling or walking and support last-mile choices.

8. Trip-planning apps help consumers discover travel options but are not common in the San Bernardino Valley.

New technology is enabling consumers to easily identify and compare travel modes to identify the choice most appropriate for each individual for any given trip. These are helping to define *mobility as a service.* Through trip-planning mobile apps, consumers can discover ways to make transit, active transportation or ride-sharing a viable option for some trips or a portion of a trip. The most popular apps, most of which are not yet supported in San Bernardino County, enable users to get real-time, multimodal information from multiple transit agencies — and will soon allow riders to book trips with one-click.

Improving access to high quality, multimodal transportation information portals will benefit San Bernardino Valley consumers — and transit providers— to take advantage of rapidly advancing technologies and will enable the appropriate sharing of data across software platforms.

These themes, collectively and individually, will contribute to the shaping the study efforts through subsequent phases.

7.2 Considering the Customer Orientation

This EXISTING CONDITIONS WORKING PAPER will contribute to the identification of areas for innovation or change, of strategies that will promote mobility. The study's Market Research phase will hone and refine project lists and strategies that can positively impact the mobility of San Bernardino Valley travelers — given the perceptions of travelers about those barriers. Also important is keeping a focus on how we measure the impact of recommended strategies.

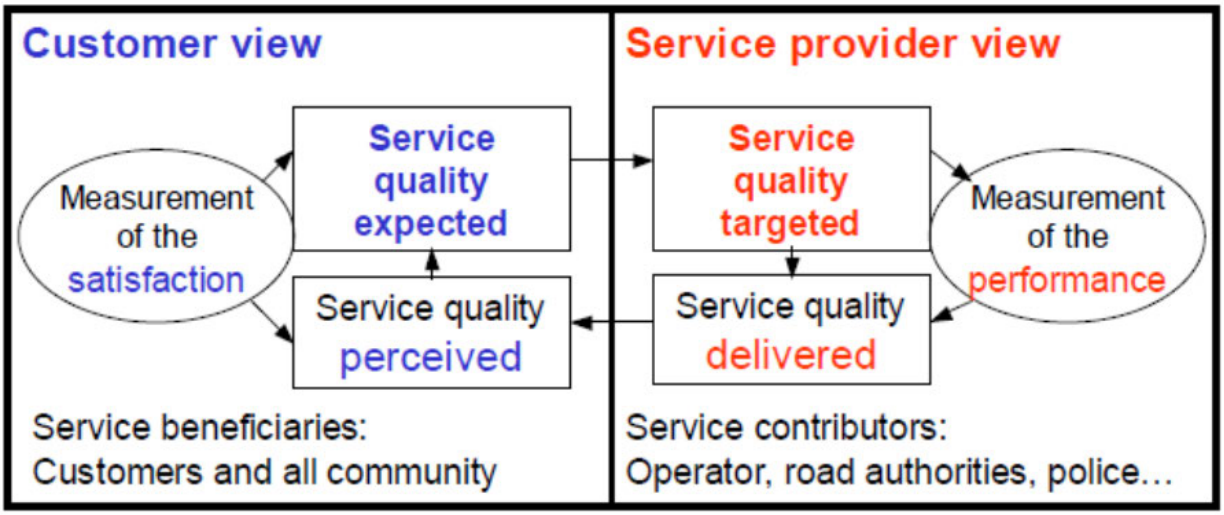
Figure 40 presents a conceptual construct for performance measurement, considering both the customer's viewpoint and the service provider's viewpoint. Adapted from its citation in Transit Cooperative Research Program (TCRP) REPORT 88: A GUIDEBOOK FOR DEVELOPING A TRANSIT PERFORMANCE-MEASUREMENT SYSTEM, this model considers the differing factors that are important to those ***consuming*** the service versus those ***producing*** it.

Consumers have a service quality "expectation" and their experience of how the reality falls short or meets that expectation is measured in their satisfaction. Providers have a service quality "target," usually

something that can be quantified. For the provider, service delivery is in the measurement of performance as it is assessed against a targeted service quality indicator.

For this project to be successful, it will need to embrace both perspectives. The consumer, the San Bernardino traveler, must perceive that mobility choices surmounting barriers to use in their own mind and experience. Providers will need to see upticks, or downticks, as in the case of collision and accident measures, that reflect forward movement.

Figure 40, Performance Measurement from Customer and Service Provider Viewpoints



Source: European Commission, *QUATTRO Final Report: Synthesis and Recommendations,* 1998.
Cited in Transit Cooperative Research Program (TCRP) Report 88: *A Guidebook for Developing a Transit Performance-Measurement System*. 2003.

Consideration of these perspectives of the consumer and the provider will be important to assessing the impact of study strategies in the near and long-term.

8. APPENDICES

Appendix A, Summary of Key Documents

Multiple agencies have either directly or indirectly identified the need for improved connections between transportation modes in the San Bernardino Valley. With the signing of AB 32 and SB 375, efforts to coordinate land use and transportation planning as a way to reduce greenhouse gas emissions are now incorporated in regional, local and project planning documents. Improved connectivity between modes becomes a byproduct of land use and transportation coordination, so long as communities recognize that opportunities exist to improve public transportation, encourage active transportation and utilize emerging technologies that make travel convenient and affordable for everyone. The following subsections identify work conducted by SBCTA, Omnitrans, SCAG and the Southern California Commuter Rail Authority (Metrolink) since 2009.

Timeline of Key Planning Documents

An overview follows of 34 planning documents, identifying the sponsoring agency and the mode of focus, for each document. Table A-1 presents a document timeline that shows when documents were approved by an agency's governing board.

Over time, one witnesses the evolution of transportation planning due to federal or state mandates that include the development of Climate Action Plans, development of a Sustainable Communities Strategy and a pivot to the importance of active transportation and the role complete streets play in the overall transportation network.

Table A-1, Major Planning Study Document Timeline and by Agency

SBCTA									
	2009	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**
Transportation Plans	San Bernardino Long-Range Transportation Plan						Countywide Transportation Plan		Customer-Based Rideshare and Transit Interconnectivity Study [in process]
Coordinated Plan			Public Transit - Human Services Transportation Coordination Plan					Public Transit — Human Services Transportation Coordination Plan	
GHG Reduction Plan						San Bernardino County Regional Greenhouse Gas Reduction Plan	SBCTA CAP Implementation Tools Final Reports on CAP Implementation Strategies		
Measure I	Measure I 2010 — 2040 Strategic Plan					Measure I Ten-Year Delivery Plan			
Active Transportation			San Bernardino County Non-Motorized Transportation Plan	Improvement to Transit Access for Cyclists and Pedestrians			San Bernardino County Non-Motorized Transportation Plan		
Transit/Rail						SBCTA Short-Range Transit Plan (Draft)	ARRIVE Corridor Study		
Airport Access						Ontario Airport Rail Access Study		Rideshare Opportunities to Connect Metrolink Service to Ontario International Airport	

Table A-1, Major Planning Study Document Timeline and by Agency - Continued

SCAG									
	2009	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**
RTP/SCS				2012 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS)*				2016 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS)	
Omnitrans									
Short-Range Transit Plans						Omni CONNECTS FY 2015 – 2020 Short Range Transit Plan			
Annual Service Element	Omnitrans FY 10 Service Plan*	Omnitrans FY 11 Service Plan*	Omnitrans FY 12 Service Plan*	Omnitrans FY 13 Service Plan*	Omnitrans FY 14 Service Plan*	Omnitrans FY 15 Service Plan*	Omnitrans FY 16 Service Plan*	Omnitrans FY 17 Service Plan	
Bus Rapid Transit		System-Wide Transit Corridor Plan for the San Bernardino Valley				Omnitrans West Valley Connector Corridor Alternatives Analysis			
Bus Stop Design Guidelines					Omnitrans Transit Design Guidelines				
Metrolink									
Plan								Our Future is on Track Metrolink 10-Year Strategic Plan 2015-2025; Short-Range Transit Plan	
Study							Metrolink 2015 Origin/ Destination Study		
* Plan/study not summarized below									

Summary of Key Documents

SBCTA

Transportation Plans

San Bernardino Countywide Transportation Plan, September 2015

The Countywide Transportation Plan (CTP) provides strategies for long-term investment and management of transportation assets in the San Bernardino County. One of the key issues identified in the Plan is Transit System Interconnectivity, which is broadly defined as better coordination between transit and ridesharing modes. The hope is that coordination will lead to easier transfers and usable fare media across different modes as well as improved first-/last-mile connections. In an effort to address this challenge, SBCTA developed a strategy that is customer-focused. This approach is the sole reason for drafting this Customer-Based Ridesharing and Transit Interconnectivity Study.

This document brings together the challenges that the county faces and projects that improve mobility in the region. Since it is one of the more current plans specific to San Bernardino County, it provides insight into the direction the county is headed in taking into account the more prominent issues of coordinating land use and transportation, greenhouse gas reduction, congestion relief and system preservation. More importantly, it is one of the few documents that directly address the theme of interconnectivity and its key role in the region.

Coordinated Plan

Public Transit — Human Services Transportation Coordination Plan, February 2017

The Public Transit — Human Services Transportation Coordination Plan is a federally mandated document that provides countywide goals and strategies that improve mobility options for transit-dependent populations. The plan identifies seniors, persons with disabilities, persons with low-income and veterans as the target populations that can benefit significantly from improved transportation coordination between public transit service providers, nonprofit organizations and the county transportation commission. The plan was developed through extensive public and stakeholder outreach components with meetings that identified service gaps throughout San Bernardino County. The outcome of these meetings was five goals with strategies that transportation service providers could prioritize and felt that were significantly important in the region. Transportation service providers could then develop projects from these strategies and apply for federal funding dedicated to improving transportation options for these target populations.

Greenhouse Gas Reduction Plan

San Bernardino County Regional GHG Reduction Plan, March 2014

The Greenhouse Gas (GHG) Reduction Plan summarizes and catalogs local jurisdictions' efforts to reduce GHG emissions in San Bernardino County. As a result of AB 32 (Global Warming Solutions Act of 2006), SBCTA created an informal partnership with cities throughout San Bernardino County in an effort to compile GHG emissions and evaluate GHG reduction measures adopted by 21 partner cities. The document defines the roles of local and regional agencies in developing a unified vision of land use and transportation

coordination efforts that is consistent with the region's Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS).

The document contains a GHG reduction profile for each partner city. The profile includes a summary of the city, socioeconomic profile, GHG reduction summary, GHG reduction measures (state, county and local measures), and relevant general plan policies that support GHG reduction measures. While the goals and policies differ by city, many goals are supportive of improved bus service, bicycle lanes and programs that reduce the number of residents driving alone.

SBCTA Climate Action Plan Implementation Tools Final Report on CAP Implementation Strategies, October 2015

The SBCTA Climate Action Plan (CAP) Implementation Tools Final Report is one of three reports that summarize the implementation strategies delivered to SBCTA and partnership cities from the GHG Reduction Plan. This document includes an administrative draft City of Yucaipa's Climate Action Plan (July 2015). The draft CAP for Yucaipa includes General Plan goals, policies and programs that establish a bicycle lane program and smart bus technologies. This document also includes a memorandum to SBCTA on a draft CAP template, draft funding and budgeting strategies, which list potential funding sources, incentives and funding mechanisms, and examples of CAP implementation best practices. Regional coordination is also described in this document and provides similar information from the Regional GHG Plan.

Measure I

Measure I 2010-2040 Strategic Plan, April 1, 2009

The Strategic Plan "is the official guide and reference for the allocation and administration of the combination of local transportation sales tax, state and federal transportation revenues, and private fair-share contributions to regional transportation facilities from new development needed to fund delivery of the Measure I 2010-2040 transportation program." The Plan also establishes policies and procedures for administration of Measure I funds. The Strategic Plan is composed of two parts. Part 1 provides an overview of the program, describes the Measure's scope, illustrates financial information and documents the policy's structure for each program. Part 2 of the Plan presents the specific policy language on how the program is administered. Program areas are identified under each of the subregions with the San Bernardino Valley Subarea having the most programs. These programs are the freeway program, freeway interchange program, major street program, local street program, Metrolink/Rail program, express bus/bus rapid transit program, senior and disabled transit program, and traffic management systems program. The theme of interconnectivity is not directly addressed in this document, but the projects identified all contribute to improved mobility options in the region.

Measure I Ten-Year Delivery Plan, March 2014

The Measure I 2010/2040 Ten-year Delivery Plan is the current list of projects that will receive a share of Measure I funds in the next 10 years. The Delivery Plan enables SBCTA to meet the requirements of bond rating agencies for future bond sales. The Delivery Plan sets a basis for the preparation of SBCTA's annual budgets for projects identified in the plan.

Active Transportation

San Bernardino County Non-Motorized Transportation Plan, March 2011, Rev. May 2015

The San Bernardino County Non-Motorized Transportation Plan (NMTP) is a comprehensive plan that examines both bicycle and pedestrian plan efforts within the county. One of the primary reasons for creating the document is to create and develop an interconnected system for cycling and walking. Interconnectivity themes can be found throughout the document focusing on active transportation and public transportation. For example, some of the plan's policies include language in which SBCTA will work with member agencies and transit operators to ensure that bicycle and pedestrian connections are established at transit centers and park-and-ride lots and that bicycle amenities are provided at these facilities.

The NMTP was amended in May 2015 to include a Complete Streets strategy to the plan. This strategy is aimed to help local jurisdictions comply with the Complete Streets Act of 2008. This act requires consideration of complete streets into general plan updates and provides sample goals and policies that help jurisdictions attain improved bicycle and pedestrian access along the street network. Again, the theme of interconnectivity is apparent in Complete Street design as it takes into consideration all modes of transportation.

Improvement to Transit Access for Cyclists and Pedestrians, November 2012

This document identifies barriers faced by non-motorized transportation users in accessing existing Metrolink stations and future bus rapid transit stations (sbX). Both recommendations and system improvements for improved bicycle and pedestrian connections are provided for each of the station locations identified in this report. The 10 station locations in this report are: 1) Montclair Metrolink Station, 2) Upland Metrolink Station, 3) Rancho Cucamonga Metrolink Station, 4) Fontana Metrolink Station, 5) Rialto Metrolink Station, 6) San Bernardino Metrolink Station, 7) Hunts Lane (San Bernardino) sbX Station, 8) Anderson Street (Loma Linda) sbX Station, 9) Highland Avenue (San Bernardino) sbX Station, and 10) Palm Avenue (San Bernardino) sbX Station.

This study's recommendations provide a guide for cities seeking to secure funding for station area improvements and ultimately implements the goals of SBCTA's Non-Motorized Transportation Plan. Federal, state, local and private programs are listed in this document as potential funding sources for projects identified in this study. The following is a broad list of recommendations for improvements at transit stations:

- Develop a Comprehensive Wayfinding Plan
- Pavement Markings
- Prioritize Roadway Resurfacing on Designated Bikeways
- More Bike Parking at Stations and Surrounding Destinations
- Pedestrian Improvements

Transit/Rail

San Bernardino County Long-Range Transit Plan, Interim Draft Report, October 2009

The Long-Range Transit Plan (LRTP) provides the framework for improving public transit service for three specific subareas: San Bernardino Valley area, Victor Valley and rural areas. Four separate alternatives are explored that look at a variety of strategies, including additional rail and BRT service, implementation of transit supportive land uses and a scenario based on the implementation of funded projects. Through the evaluation process, it was determined that the Sustainable Land Use Alternative provides the most annual boardings and serves the highest annual passenger miles for the San Bernardino Valley area. Projects included in this scenario are the Metrolink Extension into Downtown San Bernardino, implementation of Redlands Commuter Rail, Metro's Gold Line extension into the Montclair Transcenter and the implementation of four sbX corridors in the Valley area. Transit supportive land uses promote the theme of interconnectivity by providing opportunities for users living near transit stations and high-quality transit corridors to use public transit services.

SBCTA Short-Range Transit Plan, FY 2015-FY 2019, Existing Conditions Report, December 2014

SBCTA's Short-Range Transit Plan (SRTP) is a guide for transit improvements over a five-year period. The SRTP is intended for use by transit agencies as it proposes region-wide transit system goals, objectives and service standards. Individual agency goals, objectives and service standards are also compiled into this document. The SRTP references the draft CTP and highlights the goals and objectives identified in the CTP. The SRTP builds off of these goals and further distinguishes the need for improved connectivity between transit agencies and rideshare programs.

The ARRIVE Corridor Final Report, Sept. 11, 2015

The ARRIVE (Advanced Regional Rail Integrated Vision East) Corridor Final Report provides strategies for initiating and encouraging transit-oriented development (TOD) around six stations along Metrolink Commuter rail service in San Bernardino County. Short, mid- and long-term recommendations are provided with the study calling for a "Marketing Board" to begin a marketing campaign to generate development interest along the corridor at station locations. A passenger survey conducted onboard Metrolink trains indicates that there is a desire for improved connectivity either through improved transit, pedestrian or bicycle amenities. The six stations include Montclair, Upland, Rancho Cucamonga, Fontana, Rialto and the Santa Fe Depot in San Bernardino. Several key findings were presented in this report through surveys conducted on Metrolink trains and stations. Findings include:

- About 6 percent of Metrolink users walk or bike to the stations. Almost 90 percent access the system by car.
- A survey conducted among Metrolink riders at the station locations indicated that better bus connections and pedestrian connections and amenities ranked relatively high when asked to pick four features that contribute to a walkable environment and more compact development within ½- mile area around a station. More retail and restaurants ranked the highest.

Airport Access

SBCTA Ontario Airport Rail Access Study, November 2014

The purpose of this study is "to provide a convenient, reliable and cost-effective transit service connecting the Ontario International Airport (ONT) with the regional rail system for air travelers and airport employees." The study primarily looks at inter-modal connectivity to ONT and examines the potential for implementing alternative modes of transportation, more specifically rail or bus shuttle service, traveling to and from the airport. Of the two modes, the study recommends that rail serves passenger needs better compared to bus, but the near-term ridership potential does not justify the cost of building a rail system. Subsequently, this study sets in motion the Rideshare Opportunities to ONT and Omnitrans proposed new route to ONT as identified in the FY 17 Service Plan.

SBCTA Rideshare Opportunities to Connect Metrolink Service to Ontario Airport, June 3, 2016

The purpose of the document is to identify opportunities to provide improved connectivity to ONT with a focus on access to Metrolink service and the potential for transportation network companies providing a service gap between the stations and airports. It is one of the first studies to examine the role of TNCs in providing mobility options in San Bernardino Valley. While Metrolink and TNCs are the primary focus, consideration for other modes, such as bus, taxi and private shuttles are examined. Both travelers flying into and out of ONT as well as airport employees were surveyed as part of this study. Some of the recommendations include:

- Metrolink should consider installing signage at a portion of the passenger pick-up/drop-off area at each station for taxis and rideshare services.
- Metrolink should consider marketing the potential to use rideshare companies to begin or end commuter rail passenger trips.
- ONT should review and consider modifications to the current ground transportation permitting rules to encourage the transportation network companies to provide pickup as well as drop-off service at the airport.
- Airport terminal drop-off/pick-up zones should be reviewed and possibly re-signed in order to clarify where TNC service passengers should wait. Likewise, a passenger pickup location with waiting benches/shelters should be established in front of the Airport Administration building on the south side of the airport for airport employees who rideshare.
- ONT should designate an onsite employee transportation coordinator to help disseminate information on commuting alternatives and to help avail employees of ridesharing benefits and potential income tax savings via the "Commuter Choice" pre-tax transportation benefit (ACT, 2016) for qualifying rideshare modes, such as Metrolink passes. LAWA employees are currently handling this function, but it is assumed this will cease with the recent change in ownership.
- SBCTA should consider working with the ONT, Metrolink, IE Commuter and the TNCs to establish a pilot program to test and market subsidized TNC fares between the Rancho Cucamonga Station and/or Montclair Station and ONT. A potential source of funding for such a pilot program would be to apply the IE Commuter funding for the $2.00 per day ridesharing incentive and Rideshare Plus coupon books to subsidize the TNC trip in lieu of those programs.

- IE Commuter should conduct follow-up commuter transportation program presentations and coordination onsite once the Ontario employee transportation coordinator is in place

SCAG

RTP/SCS

2016 Regional Transportation Plan/Sustainable Communities Strategy, April 2016

The 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) is a federally-mandated transportation plan that provides the framework for transportation projects in the six-county Southern California region. The plan also includes strategies that achieve greenhouse gas reduction targets set by the California Air Resources Board. The RTP/SCS presents a vision of compact communities that are connected by "numerous public transit options, including bus and rail service." The plan presents a vision of people having "more choices for getting around," which leads to a higher quality of life.

The initiatives in the document are very broad allowing for flexibility given the geographic and political environment of the region. Some of the initiatives of the plan that relate to interconnectivity include:

- Expanding the regional transit system to give people more alternatives to driving alone. The RTP/SCS is supportive of plans and programs that promote regional and inter-county fare agreements and media, and implementing first-/last-mile strategies to extend the reach of transit.
- Managing demands of the transportation system by encouraging ridesharing, including carpooling and vanpooling and supportive policies for services such as Uber and Lyft. In addition, promoting increased use of transit, rail, bicycling, walking and other modes of travel is discussed as part of this plan.
- Promoting walking, biking and other forms of active transportation is examined as part of the plan and includes discussion on increasing access to major transit facilities and supporting bike share programs throughout the region.

Specific projects within San Bernardino County are identified in the plan, which include the West Valley Connector, Redlands Rail and HOV lanes on I-10, I-215 and I-210. Moreover, support for broad active transportation strategies and first-/last-mile strategies are identified in the RTP/SCS.

Omnitrans

Short-Range Transit Plan

OmniCONNECTS Omnitrans FY 2015-2020 Short-Range Transit Plan, April 2, 2014

Omnitrans' Short-Range Transit Plan (SRTP) provides the capital and operating plan for the agency over a period of six years. The document is updated every three years. Capital and operating costs in the SRTP are integrated with SCAG's Federal Transportation Improvement Program (FTIP) for the purpose of fulfilling federal programming mandates. The SRTP lists five goals as a method to deliver quality service for the San Bernardino Valley. The SRTP includes both a constrained and unconstrained planning scenario, which identify service improvements that reflect Omnitrans goals. Omnitrans identified several strategies that can improve interconnectivity, such as:

- Improve the ease of multimodal transfer connections while improving the ability of passengers to transfer within Omnitrans' system or connect to a neighboring system.
- The need for partnerships, both public and private, to offset the costs or expand a revenue stream are crucial.

Annual Service Elements

Omnitrans FY 17 Service Plan and Marketing Plan, June 2016

The Omnitrans annual service plan update provides a description of service provision for the upcoming fiscal year (July 1, 2016 to June 30, 2017). The FY 17 service plan is the third year of service upon approval of OmniConnects, the Short-Range Transit Plan (SRTP) approved in FY 2014. New services proposed include:

- Increase the number of one-way weekday trips from 15 to 20 on Route 290 Freeway Express traveling east-west between the cities of Montclair and San Bernardino along I-10.
- Implement a new Yucaipa/Redlands Freeway Express (Route 208), reducing the travel time between the Yucaipa Transit Center to the San Bernardino Transit Center from as much as 116 minutes to 49 minutes along I-10. Service is expected to begin during the January 2017 service change. Initial service is limited to eight one-way peak period trips on weekdays and scheduled to meet with Metrolink trains.
- Development of OmniGo Ontario Airport service is included in the service element but will not become operational until a partnership between Omnitrans and the Greater Ontario Convention and Visitors Bureau is formed. This service will provide connectivity between ONT and the Rancho Cucamonga Metrolink Station. An alternative alignment on which this north-south route will travel (i.e., Haven Avenue or Milliken Avenue) is yet to be determined.

Separate from the Service Plan is the Marketing Plan. This document provides information on Omnitrans' markets. In addition, the document provides recommendations on service promotion to the general public and employers, promotion of prepaid fares and improved customer communications. Strategies are also developed that supports service improvements identified in the Annual Service Element.

Bus Rapid Transit (BRT)

Omnitrans System-Wide Transit Corridor Plan for San Bernardino Valley, October 2010

The 2010 version of the System-Wide Transit Corridor Plan is an update to a System-Wide Plan adopted in September 2004. The revision takes into consideration SB 375, the Sustainable Communities and Climate Protection Act of 2008, that reduces greenhouse gas emissions through coordinated transportation and land use planning, and the development of Omnitrans' first BRT corridor located in San Bernardino and Loma Linda. This document analyzes 10 potential transit corridors as opposed to the seven corridors identified in the original plan. Moreover, corridors are evaluated and prioritized based on the corridor's ability to promote TOD and obtain transit signal priority (TSP), contribute to the project development process, and promote the goals of SB 375 and regional growth management policies. Ultimately, the plan identifies the sequence of corridors that can be built over the next 25 years.

Omnitrans West Valley Connector Corridor Alternatives Analysis, September 2014

The West Valley Connector Corridor Alternatives Analysis, which began when SAFETEA-LU required an alternatives analysis for new/small starts funding, identifies a recommended alternative to improve transit service in the western portion of the San Bernardino Valley. The alternative is derived from the updated System-Wide Transit Corridor Plan in 2010. The alternative is a limited stop Rapid bus service that travels east-west in the cities of Pomona, Montclair, Ontario, Rancho Cucamonga and Fontana along segments of Routes 61 and 66. A north-south segment exists along Milliken Avenue in Rancho Cucamonga and Ontario. A total of 27 enhanced stations are proposed along the alignment and bus will benefit from transit signal priority (TSP) applications. Finally, the system will use the sbX brand, consistent with the bus rapid transit corridor located in the Cities of San Bernardino and Loma Linda.

Bus Stop Design Guidelines

Omnitrans Transit Design Guidelines, March 15, 2013

The Omnitrans Transit Design Guidelines provide a comprehensive list of guiding principles for designing bus stops and stations. The information provided is not intended as standard guidelines as Omnitrans encourages local jurisdictions to evaluate local conditions; the use of these guidelines are to ensure that bus stops are safe and accessible and take into consideration the needs of pedestrians, persons with disabilities, bicycles and others that travel on public transportation. The document provides information on how to implement wayfinding strategies at transit centers and guidance and design criteria for improved passenger and bicycle connectivity at bus stops and station locations.

Metrolink

Strategic Plan

Our Future Is On Track — Metrolink 10-Year Strategic Plan 2015-2025, March 2016

The purpose of Metrolink's 10-Year Strategic Plan is to help provide the agency with funding priorities over a 10-year period. The document includes goals and a vision that were developed between the five county transportation commissions, Board members, stakeholders and the public. Ultimately, the document provides a framework for Metrolink to provide excellent, reliable, commuter rail service in Southern California. The Strategic Plan is flexible and the intent is to update the document every two years based on feedback from annual performance reviews of the goals and strategies.

The plan conducted a SWOT (Strength, Weakness, Opportunities and Threats) analysis and identified the bus-rail connection as a potential opportunity. Interestingly, parking is identified as a strength and threat to the system. Parking availability ranked favorable among customers but also a threat as station parking is nearing capacity at some stations. A few strategies identified by the agency relate to the Interconnectivity Study include the following:

- Improve connectivity with Regional Transit Agency Services.
- Improve customer amenities: online ticketing and mobile device amenities.
- Improve ticket vending machines (TVM) reliability.

Study

Metrolink 2015 Origin – Destination Study

The Southern California Regional Rail Authority commissioned the 2015 Onboard Survey to obtain a current assessment of passenger demographic profiles, rider segments, trip characteristics, customer satisfaction, access and egress modes, and average transit trip distances. The 2015 study expands and updates the collected survey results from previous onboard surveys conducted in 2008 and 2010.

The 2015 Onboard Survey was designed to yield empirically valid trip characteristics, customer satisfaction and demographic data at a system, line, and time-segment level, whose ridership is proportionately reflected at the boarding station level. In addition, the sampling plan and project designs provide identification of major origin-destination travel patterns at the line level for the purpose of regional transportation modeling needs. This subsection reports on findings related to the San Bernardino Line, specifically those of relation to this study.

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Demographics of San Bernardino Line Riders

The San Bernardino Line serves a substantial portion of the Metrolink system's ridership. Twenty-one (21) percent of riders live in San Bernardino County. Across the system, ethnicity varies significantly by line. The San Bernardino Line has the highest proportion of Hispanic riders at 38 percent of riders. Median income varies significantly by line. The San Bernardino Line has the second lowest median household income at $66,614.

Seventy-three (73) percent of San Bernardino Line riders have a vehicle available, the second lowest percentage among all lines.

San Bernardino Line riders were asked to report on their employment:

- 66 percent work full-time
- 17 percent are students
- 7 percent are not employed/retired
- 6 percent are self-employed
- 4 percent are part-time workers

Full-time employment dropped 13 percent since the 2008 Metrolink Onboard Survey.

Trip Patterns and Purposes

The average trip length for San Bernardino Line riders is 34.6 miles, below the system wide average of 37.1 miles. Work-related trips for the San Bernardino Line have decreased from 83 percent to 70 percent. System-wide, the proportion of riders that are full-time workers continues a downward trend from a high of 90 percent in 2000, to 84 percent in 2008, 78 percent in 2010, and 74 percent in 2015.

The San Bernardino Line has one of the lowest mean days travelled per week. Fifty-five (55) percent of San Bernardino Line riders use the service five or more days per week, a decrease from 67 percent in 2008.

Fare Media

System-wide, the distribution of Metrolink fare media varies significantly with age, ethnicity and income. Use of monthly passes is lower for those under 30 and 65 or older. Asian/Pacific Islanders and Caucasians are more likely to use monthly passes than are Hispanics and African Americans, and those with incomes of $50,000 or more are more than twice as likely as those with lower incomes to use a monthly pass. On the San Bernardino Line, one-way and round-trip tickets are used by 41 percent of riders. Forty-six (46) percent of riders use the monthly pass and 10 percent use a 7-day pass.

Travel Options

Of note to this study, riders were asked to provide their transportation mode before using Metrolink to make their current trip. For the San Bernardino Line:

- 50 percent drove alone
- 19 percent reported they would always take Metrolink
- 13 percent drove with someone
- 12 percent took a bus or subway
- 5 percent reported an unknown other

Riders were also asked how they would make their trip if the specific Metrolink train they were on did not exist. Six (6) percent of San Bernardino Line riders would not make the trip and 40 percent report they would switch to a personal car.

Discussion

This Onboard Survey highlights that Metrolink is a critical resource for multiple markets. The San Bernardino Line in particular is serving a significant group of low-income and minority workers who are likely to use one-way and round-trip tickets. This points to a group that may come from unbanked, cash-based households. The San Bernardino Line riders are also highly dependent on Metrolink for their travel and are using it in place of a personal vehicle.

Appendix B, Pedestrian and Bicyclist Accident Data by Major Transit-Related Locations, 2013-2015

Transit Facilities Node	Within 1/2 Mile of Facility								Within 3 Miles of Facility							
	Pedestrian Injuries	Pedestrian Fatalities	Bike Injuries	Bike Fatalities	Driver Injuries	Driver Fatalities	Total Injuries	Total Fatalities	Pedestrian Injuries	Pedestrian Fatalities	Bike Injuries	Bike Fatalities	Driver Injuries	Driver Fatalities	Total Injuries	Total Fatalities
Bloomington (San Bernardino County)	7	4	6	0	0	0	13	4	69	10	42	2	4	0	115	12
sbX Redlands Blvd. Parking Facility (Omnitrans)	3	1	0	0	2	0	5	1	29	6	24	0	2	0	55	6
Rancho Cucamonga	0	0	0	0	0	0	0	0	13	2	29	0	1	0	43	2
Bear Valley (Caltrans)	0	1	0	0	0	0	0	1	20	4	9	0	1	0	30	4
San Bernardino	3	0	1	0	0	0	4	0	160	13	87	0	10	0	257	13
Transportation Management Center (Caltrans)	1	0	0	0	0	0	1	0	19	1	23	0	0	0	42	1
City of Chino Hills Parking Structure (SANBAG)	1	0	0	0	0	0	1	0	21	2	22	0	0	0	43	2
St. Paul the Apostle Church (SANBAG)	2	0	0	0	0	0	2	0	19	2	21	0	0	0	40	2
San Bernardino County Fairgrounds (SANBAG)	7	1	4	0	0	0	11	1	38	5	19	0	1	0	58	5
Fontana	6	1	5	0	0	0	11	1	63	5	68	0	4	0	135	5
Fontana Metrolink Transit Center	6	1	5	0	0	0	11	1	63	5	68	0	4	0	135	5
Victor Valley Transportation Center (City)	6	0	1	0	0	0	7	0	33	4	14	1	1	0	48	5
Montecito Baptist Church (SANBAG)	1	0	2	0	0	0	3	0	19	1	17	1	0	0	36	2
Rialto	0	0	3	0	0	0	3	0	97	11	57	1	5	1	159	13
Upland	5	0	11	0	0	0	16	0	133	9	188	0	1	0	322	9
Eucalipa (Caltrans)	0	0	0	0	0	0	0	0	1	0	6	0	0	0	7	0
sbX Palm & Kendall Parking Facility (Omnitrans)	1	0	0	0	0	0	1	0	7	1	11	0	0	0	18	1
Chino (Caltrans)	0	0	0	0	0	0	0	0	24	2	38	0	0	0	62	2
Ontario - East	0	0	0	0	0	0	0	0	9	2	18	0	0	0	27	2
Arrowhead Regional Medical Transfer Center	3	1	0	0	0	0	3	1	74	8	46	1	5	0	125	9
Montclair Transit Center (Caltrans)	1	0	2	0	0	0	3	0	81	3	115	0	4	0	200	3
Montclair	1	0	2	0	0	0	3	0	81	3	115	0	4	0	200	3
Montclair Transit Center	1	0	2	0	0	0	3	0	81	3	115	0	4	0	200	3
San Bernardino Transit Center	6	2	2	0	0	0	8	2	144	14	93	0	12	0	249	14
Route 3/4 and 14 at 5th Street 5th Street at Mt. Vernon	7	0	3	0	1	0	11	0	161	13	89	0	10	0	260	13
Yucaipa Transit Center	4	1	1	0	0	0	7	1	12	4	14	0	0	0	26	4
Shepherd of the Hills (SANBAG)	0	0	0	0	0	0	0	0	11	2	24	0	1	0	36	2
Chino Transit Center	3	0	6	0	0	0	9	0	45	0	52	1	1	0	98	1
Yucca Valley (City)	0	0	0	0	0	0	0	0	1	2	0	1	0	0	3	3
Community Baptist Church (SANBAG)	0	1	2	0	0	0	2	1	19	4	10	0	1	0	50	4
Highland Avenue Community Church (SANBAG)	1	0	0	0	0	0	1	0	16	3	33	0	1	0	50	3
Loma Linda University Medical Center	2	1	0	0	0	0	2	1	29	6	23	0	2	0	54	6
Redlands Blvd	4	0	1	0	0	0	5	0	27	2	16	0	3	0	46	2
Beech/SR-210 (Caltrans)	1	0	0	0	0	0	1	0	12	2	25	0	1	0	38	2
VA Hospital	2	0	2	0	0	0	4	0	29	3	18	0	2	0	49	3
Chaffey College Transit Center	0	0	0	0	0	0	0	0	11	2	17	0	1	0	29	2
Route 14 and 1 D Street at 2nd Street	8	0	1	0	0	0	9	0	142	15	95	0	11	0	248	15
Baseline	12	0	4	0	1	0	17	0	150	18	96	0	15	0	261	18
Civic Center	13	1	4	0	0	0	17	1	146	16	95	0	11	0	252	16
Highland	7	1	7	0	2	0	16	1	158	20	102	1	17	0	277	21
Inland Center	4	0	0	0	0	0	4	0	137	14	74	0	9	0	220	14
San Bernardino Transit Center	6	1	2	0	0	0	8	1	146	14	94	0	12	0	252	14
Munts	1	0	0	0	0	0	1	0	56	9	25	0	4	0	85	9
Route 66 and 83 Euclid at Foothill	4	1	6	0	0	0	10	1	82	5	147	0	1	0	230	5
Route 66 and 80 Foothill at Carnelian	0	0	2	0	0	0	2	0	21	4	39	0	1	1	61	5
Route 66 and 81 Foothill at Haven	2	0	1	0	0	0	3	0	13	3	41	0	1	0	55	3
Crestline (San Bernardino County)	2	0	0	0	0	0	2	0	6	0	1	0	0	0	7	0
Route 1 and 3/4 Highland at Victoria	4	1	2	0	0	0	6	1	66	9	40	1	4	0	110	10
Ontario Civic Center Transfer Center	11	2	8	0	0	0	19	2	117	9	153	2	8	0	278	11
Route 61 and 80 Holt Blvd at Vineyard	2	0	1	0	0	0	3	0	74	5	89	0	4	0	167	5
Carnegie	3	0	0	0	0	0	3	0	41	6	20	0	4	0	65	6
Tippecanoe	3	2	0	0	0	0	3	2	30	7	22	0	2	0	54	7
Barstow "L" Street (Caltrans)	1	0	0	0	0	0	1	0	9	6	3	1	2	0	14	7
Little Mountain	0	1	3	0	0	0	3	1	38	7	25	0	6	0	69	7
Palm	1	0	0	0	0	0	1	0	15	3	7	0	2	0	24	3
Shandin Hills	1	0	1	0	0	0	2	0	37	8	30	0	11	0	78	8
Ontario Mills Transfer Center	3	0	2	0	1	0	6	0	30	2	28	0	1	0	39	2
Marshall	3	1	2	0	1	0	6	1	110	15	82	1	17	0	209	16
Downtown Pomona	2	0	1	0	0	0	3	0	36	0	44	0	3	0	83	0
Redlands Mall Transfer Center	21	0	9	0	1	0	31	0	73	3	59	0	4	0	134	3
Montclair Plaza Transfer Center	3	0	1	0	0	0	4	0	83	3	99	0	4	0	186	3
South Fontana Transfer Center	6	0	5	0	0	0	11	0	70	8	57	0	1	0	128	8
California State University San Bernardino	2	0	1	0	0	0	3	0	27	3	16	0	2	0	45	3
Hesperia (City)	0	0	0	0	0	0	0	0	2	0	4	1	0	0	6	1
Route 3/4 and sbX and 2 Highland at E Street	7	1	7	0	2	0	16	1	158	20	102	1	17	0	277	21

Appendix C, Available Non-Work Trip Travel Patterns

Another source of origin and destination data is available from very recent information provided through San Bernardino County's *Veterans Transportation and Community Living Initiative* (VTCLI) Cycle I grantee from the Federal Transit Administration, the VetLink program. Awarded in 2011, this grant resulted in the creation of a two-county One Call-One Click information portal. The portal's intent was to help connect veterans with available public and specialized transportation, based upon the specific trip requests. The VetLink portal, developed by Cambridge Systematics, was launched late in 2013 and began regularly assisting callers to the 211 organizations of San Bernardino and Riverside counties or to the website visitors to www.211VetLink.org, initially available on the IE511.org website until the program's own server was up and running.

Figure C-1 presents two full years of trip request data for which both the trip origin and destination were available, or 1,028 trips. While this is a relatively small sample size, it provides new insight into non-work trips. It shows the dominate trip destination of the Loma Linda Veterans Administration for the greatest proportion of trips, but also the broad dispersion of origins and destinations coming into the VetLink portal. Data is plotted at the ZIP code level so locations are generalized to the center of any given ZIP code area.

Figure C-1, VetLink Trip Requests, All Trips

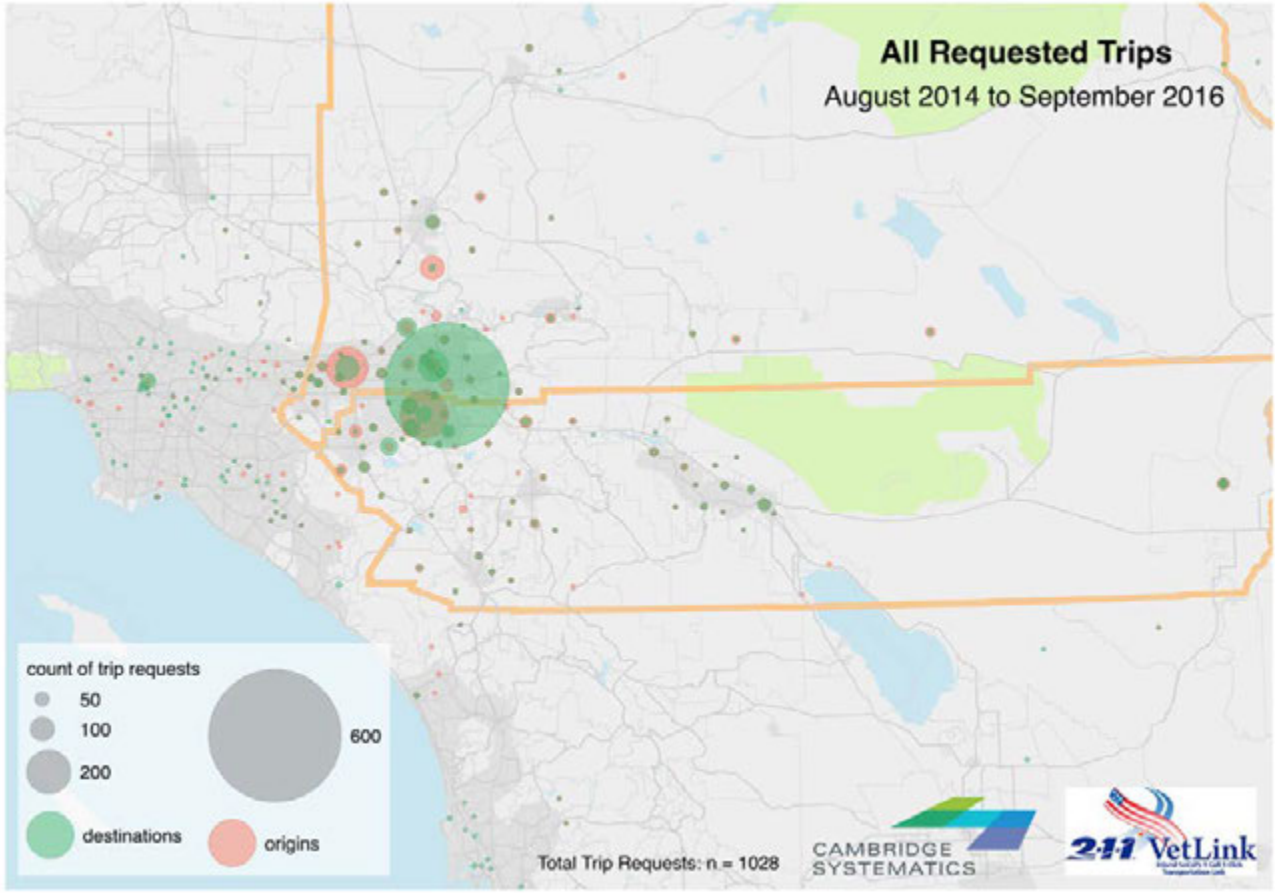

Figure C-2 depicts trip destinations by one of three user characteristics: veterans, seniors or persons who are ADA certified. While veterans are the most common group on this veteran-oriented trip planning portal, there are also a significant number of older adult travelers who are not ADA-certified, as well as ADA-certified persons.

Figure C-2, VetLink Requested Destinations by User Characteristics

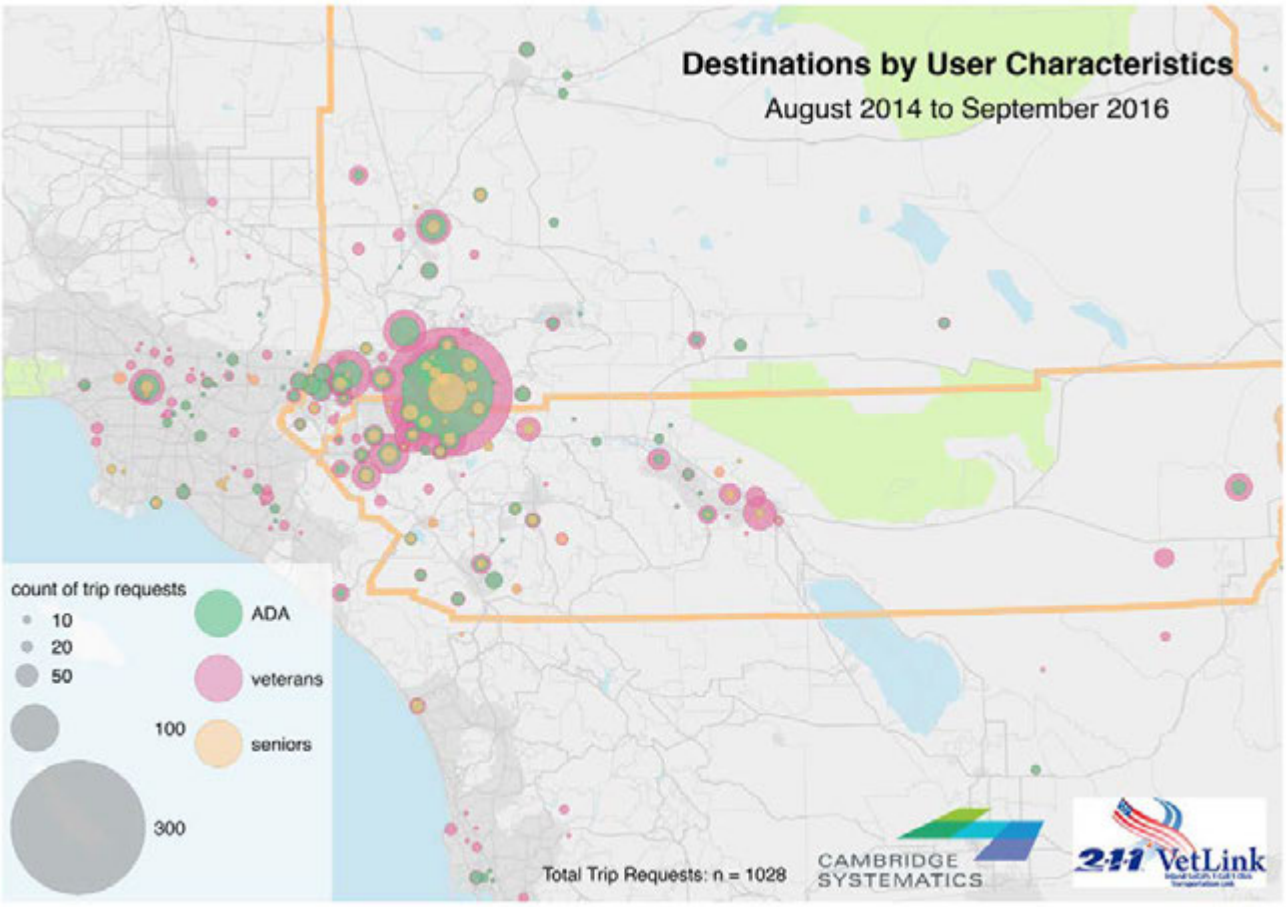

Figure C-3 resents the subset of trip requests for which no transit result could be identified. The 211VetLink database includes all the public transit providers' fixed-route General Transit Feed Specification (GTFS) information and, importantly, includes all demand-response service areas of the two counties' providers. It also includes specialized transportation providers in either Riverside or San Bernardino counties who are Section 5310 grantees or, in the case of Riverside County, are Measure A Specialized Transportation Program grantees.

In Figure 43, some patterns emerge, including trip demand from the Morongo Basin area into Palms Springs and into the Loma Linda VA Medical Center. There is also some interesting cross demand between the two counties and from the High-Desert of the Victor Valley to San Bernardino Valley destinations. Again, the count for each of these desire lines is small, but represents a trip need that never surfaced to the VetLink trip portal and for which there are other, similar trip needs that can be characterized as "latent" demand.

Figure C-3, VetLInk Trip Requests, Request with No Transit Results