Market Analysis

As part of the assessment of how the current RTD route network serves intended markets, a review of the geographic dispersion of persons in traditional transit markets was undertaken. This assessment complements the review of commuter markets and the review of the service performance characteristics of the individual routes and the system as a whole. The primary source documents for this work were the San Joaquin Council of Governments (SJCOG) population and employment estimates as developed by the University of the Pacific Business Forecasting Center. This data provides an update to the 2000 census data and represents current market conditions. It is important to note that these updated data sets are preliminary estimates and forecasts as of July 2009 and are subject to revision. SJCOG does not certify the accuracy or appropriateness of these forecasts for any other purpose and will not consider them a final product until TAC approval is received later this year.

According to the City of Stockton’s General Plan 2035, the City’s population reached 280,249 people in 2005 and continues to grow. The U.S. Census Growth trends provided by the San Joaquin Council of Governments indicate that the city is expected to surpass 400,000 people by 2025 and reach 700,000 people by 2035.

Population & Employment Density

2006

Population

Similar to most cities, Stockton has lower levels of population density on the outskirts of the city and higher densities nearing the urban center. Most noteworthy areas of population density occur between Interstate 5 and the rail line that runs through Stockton, falling just west of Holman Road. Many of the denser areas occur in the northern portion of the city, above Hammer Lane. Some of these areas have densities of over 20 people per acre.

The majority of Stockton is populated by single-family residential homes, with several groupings of apartment complexes and condominiums. Along West Lane between March Lane and Morada Lane are several sizable developments of tract homes and condominiums. There are numerous clusters of single-family housing units near the intersection of Eight Mile Road and Interstate 5 and more condominiums and tract homes near Interstate 5 and the waterway south of Eight Mile Road. Downtown Stockton holds a large proportion of commercial mixed-use areas as well as medium and high density residential areas. These regions are typically condominiums and apartment complexes with single-family homes surrounding.
Lodi, Manteca, and Tracy each show a pattern of development similar to Stockton. Lodi has moderate to high levels of population density, especially near Harney Lane and the rail line where there are numerous groupings of apartment complexes and condominiums. Manteca displays two regions of very high population density in which apartment complexes and condominiums dominate the area; one is located along Interstate 5 within J Street and Louise Avenue and the other is enclosed by Airport Way, Highway 99, and Highway 120. The majority of Tracy is at a level of high residential density, especially the area encircled by Interstate 205, Macarthur Boulevard, Valpico Road, and Lammers Road. Very much like Lodi and Manteca, these regions of high population density are filled with apartment complexes, condominiums, and large groupings of tract homes.

Employment

Strong concentrations of employment are located at the intersection of Pershing Avenue and March Lane, where there are two shopping centers: College Square and Venetian Square and the nearby golf course. Another area showing very high employment levels is near March Lane and Pacific Avenue where the Weberstown Mall, Sherwood Mall, Lakewood Mall, and the Lincoln Shopping Center can be found. As expected, there is also very high employment density at the University of the Pacific and in the Downtown center along Fremont Street, with several high and moderate levels surrounding the area. Such moderate to high levels of employment continue to occur along the outskirts of the city, especially along Interstate 5 near the waterfront and along Highway 99.

Lodi, Manteca, and Tracy again each mirror the employment patterns seen within Stockton, displaying higher employment levels in the city center which decrease traveling outwards. Along Lockeford Street, between Hutchins Road and the rail line, is the greatest employment concentration within Lodi. There are numerous commercial storefronts as well as the Lodi Hutchins Street Square, which serves as a popular music venue for the region. Within Manteca, the Kaiser Manteca Medical Center, Manteca Shopping Center, and Manteca Park Golf Course all coalesce to create very high levels of employment density, each nearby the intersection of Union Road and Yosemite Avenue. Tracy shows its greatest job concentration to be at Tracy Avenue and Beverly Place, where the Sutter Tracy Community Hospital is located and at the Westgate Plaza Shopping Center, found within 11th Street, Beechnut Avenue, and Tracy Boulevard.
2006 Population Density

Population per Acre
- More than 20
- 10 - 20
- 5 - 10
- 1 - 5

Bus Network

Data Source: SJCOG Updated: July 2009
2015

Population

By the year 2015 population densities within Stockton will continue to gradually increase. Residential presence will have reached very high levels surrounding the intersection of March Lane and Pershing Avenue and also near Eighth Street west of Interstate 5. With expectations that the City’s population will only continue to grow, additional transit service may be necessary within growth areas. Manteca will show a rise in residential densities in central areas (especially south of Yosemite Road) as more developments are built and planned communities formed. In Tracy, more housing is expected to be built south of Valpico Road.

Employment

Numerous areas within Stockton show an increase in employment levels in 2015. Jobs are expected to increase within areas already showing above-average levels of employment, such as shopping centers along Pershing and Pacific. Areas around the Port of Stockton also show job growth. The City of Lodi shows increases near downtown and also east of Highway 99.
2025

Population

Growth within Stockton shall continue on a steady level, with significant increases in areas of already high density: near the intersection of Alpine Avenue and Pershing Avenue and the intersection of Washington Street and Highway 99. Manteca will also experience a rise in residents close to Interstate 5 and Lathrop Road.

Employment

Job growth continues mainly within Stockton and Lodi, with increases shown along March Lane west of Pacific, around Harding Way and California Street (St. Joseph’s Medical Center), and downtown Stockton. Growth in Lodi is expected to occur west of Ham Lane.
Demographics

Youth Population

The youth population is defined as persons aged 10-17 years of age. Youth aged residents are typically middle school and high school students given the choice by their parents or guardians to use public transportation to get to school and social functions.

There are seven middle schools and ten high schools within Stockton and each is in close proximity to population clusters of youth aged residents. There is a high presence of youth age residents near Interstate 5 and the waterway just south of Eight Mile Road. Clusters of higher density are seen at Holman Road and Morada Lane and at the intersection of March Lane and West Lane. The City of Stockton 2035 General Plan Land Use/Circulation Diagram further supports these findings, indicating that there is a high percentage of low residential density surrounding these locations and also significant concentrations of high residential density along Interstate 5 and near March Lane and West Lane. Youth age densities are seen in nearly the same location as those of the young adult population (discussed below), with a few exceptions.

Lodi shows high youth densities between West Lane and Highway 99, with a high concentration at the intersection of West Lane and Highway 12. The youth population in Manteca concentrated along Yosemite Avenue between Union Road and Main Street, with an elementary school, middle school, and high school all nearby. Tracy holds two regions of high youth density, one near Beechnut Avenue and Eleventh Street and the other near Lowell Avenue and Tracy Boulevard. The two high schools, two middle schools, and numerous elementary schools in the surrounding area help to support these rather high levels of youth population.

Young Adult Population

The young adult population is defined as persons aged 18-24. Young adults are most often students and typically have lower levels of income and are less likely to own their own vehicle. Alternative modes of transportation are thus more popular among young adults. The highest densities of young adults are found in the city center as well as near the downtown region. At Pacific Avenue and Alpine Ave there is a very high density of young adult residents, explained by the nearby presence of the University of the Pacific. Cal State University Stanislaus, near California Street and Fremont Street, helps to create another region of very high young adult population. Between Pershing Avenue, El Dorado Street, and March Lane there are four colleges, which help to explain the high percentage of student-aged residents. Similar densities are also found at the intersection of Morada Lane and Holman Road, close to Benjamin Holt.
College Preparatory School, and at the intersection of March Lane and West Lane near Heald College.

**Senior Citizen Population**

The senior citizen population is defined as persons aged 65 and older. Senior citizens, while typically retired, often use public transportation for shopping, medical, and other personal trips. Within Stockton several small pockets high in senior population are found scattered throughout the city. These are typically located in single-family residential areas, near shopping centers, and near public transit.

Stockton shows a significant concentration of senior residents in the community of Sherwood Manor between Interstate 5, Thornton Road, and Hammer Lane. In this region there are nine retirement and residential care homes. Two other areas high in senior population are found at Pershing Avenue and March Lane, where there are five retirement and residential care communities and near the St. Joseph’s Medical Center located at California Street and McCloud Avenue. All of the locations are currently served by San Joaquin RTD.
Physically Disabled Population

Persons with Physical Disabilities, as defined by the US Census are persons with a physical impairment that substantially limits one or more major life activities. These people are more likely to be transit dependent, either for basic transit or special Americans with Disabilities Act (ADA) transit. Stockton displays overall low levels of density for the physically disabled, with a few areas of higher concentration near the rail lines parallel to West Lane, downtown along Fremont Street, and along Morada Lane between Interstate 5 and Davis Road. Each of these areas are directly served by present bus and rail lines indicating that the physically disabled are found close to existing transit stops.

Economically Challenged Population

The economically challenged population is defined by the U.S. Census Bureau as persons in poverty. The official U.S. Census Bureau definition uses 48 thresholds that take into account total income, family size and the presence and number of family members under 18 years of age.

Stockton shows moderate to high levels of financially disadvantaged residents. According to the 2007 Background Report for the City of Stockton 2035 General Plan, the education profile of Stockton indicates that the city is a largely working class community. Only 15% of residents age 25 and older have obtained a bachelor’s degree or higher level of education, 15% of residents have less than a ninth grade education, and about 70% of residents fall somewhere in the middle.

The most severely challenged regions are found near the downtown center circling outward and also in the northernmost area of the city. High densities of financially challenged residents are present between Pacific Avenue and Pershing Avenue just south of March Lane, surrounding the University of the Pacific. This is explained by the large presence of college aged residents that often report lower income levels. The neighboring cities of Lodi, Manteca, and Tracy each show a similar pattern of financial disadvantage with economically challenged residents highly concentrated in the city center and decreasing in density the further one travels from the core.
2000 Physically Disabled Density

Population per Acre
- More than 12
- 6 - 12
- 3 - 6
- 1 - 3

Bus Network

Data Source: 2000 U.S. Census
Updated: July 2009
2000 Economically Challenged Density

Population per Acre
- More than 12
- 6 - 12
- 3 - 6
- 1 - 3

Data Source: 2000 U.S. Census
Updated: July 2009

Bus Network

0 1 2 Miles

Port
Stockton
Manteca
Lodi
Waterloo
Tracy
Farmington
Morada
Stockton Metropolitan Airport

SAN JOAQUIN
RTD
Zero Vehicle Households

Households without access to automobiles have a greater need for public transit, especially for daily trips such as work and school.

Areas with the fewest vehicles available per person are found mostly near the city’s downtown center, especially along Fremont Street. Traveling outward, the percentage of zero vehicle households decreases, with some higher concentrations found north of downtown along El Dorado Street. The distribution of vehicle deficient households reflects the distribution of the economically challenged population. Thus, zero vehicle households will continue to be a strong source of ridership for the San Joaquin RTD network, particularly within Downtown Stockton and near the University of the Pacific.

Residential Transit Orientation Index

The Residential Transit Oriented Index (RTOI) provides an effective tool to indentify residential areas with a high propensity to use transit. Developed for use in transit restructuring studies, this index can conveniently summarize the demographic characteristics of a particular route’s service area.

The RTOI compares Transportation Analysis Zones (TAZs) within the greater Stockton area with respect to five key demographic variables associated with transit usage: the elderly population, the youth and college age population, the financially disadvantaged population, zero vehicle households, and residential density. For each variable a score is assigned to each TAZ based upon how that variable compares to the countywide average. The score is then derived using a comparative probability estimation method. A composite score is then obtained for each TAZ by summing the scores for each of the four individual variables. These composite scores are then ranked and assigned to one of five transit orientation groups (very high, high, moderate, low, and other) based upon how each compares to the average score for the county as a whole. In general, a higher score reflects a greater propensity to use transit.

The Residential Transit Orientation Index can be used to assess unmet needs in particular neighborhoods, or used as a measure of transit orientation within the service area of each of the routes.

Stockton displays overall moderate level of transit demand potential with numerous pockets of very high transit demand, particularly surrounding the downtown center and also in the northern region of the city. Near Eighth Street and Interstate 5 there is high transit demand, due to the low and medium levels of residential density, noticeable commercial presence, and surrounding educational institutions, as indicated by the City of Stockton 2035 General Plan.
Land Use/Circulation Diagram. Downtown Stockton shows very high transit demand, particularly close to Pacific Avenue and Fremont Street. These high levels continue along Pacific Avenue, especially near March Lane where the University of the Pacific and the Sherwood and Weberstown Malls are located. Northern Stockton shows four pockets of very high transit demand potential, each within a densely populated community: Lincoln Village West located west of Interstate 5 near Benjamin Holt Drive; Sherwoods Manor located within Interstate 5, Thornton Road, and Hammer Lane; Stonewood located near Davis Road and Thornton Road; and Valley Oak located between the rail line and West Lane.

Lodi, Manteca, and Tracy each exhibit rather moderate levels of transit demand potential. Yet, similar to Stockton, they still have several areas that promise high to very high transit demand. Lodi shows significant levels of transit demand near Highway 12 and Hutchins Street, Manteca presents rather high levels close to Yosemite Road and Main Street, and Tracy shows very high demand near Eleventh Street and Tracy Boulevard.
2000 Transit Demand Potential

Residential Transit Orientation Index

- **Very High Potential**
- **High Potential**
- **Moderate Potential**
- **Low Potential**

RTOI is Youth + Sr. Citizen + In Poverty + Population + Zero Vehicle Households / Acreage

Data Source: 2000 U.S. Census
Updated: July 2009

- **Bus Network**

**Note:** The map shows the transit demand potential for various locations around Stockton, including Stockton, Manteca, Morada, Lodi, Waterloo, Farmington, Tracy, and Port of Stockton. The map highlights areas with different levels of potential for transit demand, with colors indicating the potential ranges from low to very high.
Major Developments

There are several new major developments planned for Stockton, as show in the 2035 General Plan. They can be found in the downtown area and outskirts of the city, combining residential growth, employment, and recreational opportunities. These projects will provide both trip generation and trip attraction – sources of potential new ridership for RTD. Development planned for downtown Stockton includes:

- Lexington Plaza Waterfront Hotel—intended to complement the recent constructions along the waterfront and located on the north shore of the Stockton channel; currently being constructed
- Weber Point Pedestrian Bridge—pedestrian bridges which will provide pedestrian access between Weber Avenue, Weber Point, and the Stockton Events Center
- Marina/Waterfront Yacht Harbor—acquired by the Redevelopment Agency; revitalization will help to provide a destination marina and attract redevelopment activities drawing more visitors and residents.
- Dean DeCarli Waterfront Square (Weber Plaza)—connects the Stockton Waterfront and the Central Business District; 70,000 sq. ft. public plaza
- Gateway Block—located in Downtown area; 60,000 sq. ft. commercial development; serves as a friendly gateway entry by drawing residents and visitors into Downtown off the Crosstown Freeway

The 2035 General Plan further envisions Stockton to become a community with a core central district and inner city neighborhoods linked to newly planned village regions. These villages are to be found along the outskirts of the community and will mirror inner city neighborhoods by maintaining a mix of residential, commercial, school, public, and recreation uses. The creation of theses villages will help to enhance circulation and promote alternative travel modes such as public transit, bicycles, and walking thus creating more sources of potential new ridership for RTD. The overall goal of the village is to minimize vehicle dependency by supporting transit and land use designs that encourage the use of alternative transportation while connecting districts and villages to each other as well as the rest of the community. Villages are planned in the following locations:

- Northern Stockton north Eight Mile Road and also south of Eight Mile Road between Lower Sacramento Road and West Lane
- Along the waterfront west of Interstate 5 near Hammer Lane
- South of downtown just south of Wolfe Road and west of Stockton Airport
- Eastern Stockton just south of State Route 4 and north of Mariposa Road
Each village will contain a “Village Center” that holds a variety of uses where office and residential are interwoven with the commercial core and it will hold as the focal point for all modes of travel. “Village Center Neighborhoods” will contain a variety of housing types and densities but hold the highest proportion of residential density in the village. Focus will continue to be directed towards alternative modes of transportation, especially the bicycle and walking. “Outer Village Neighborhoods” will also show an assortment of housing types and densities, yet be dominated by single-family homes. They will be utilized for land uses that rely greatly on automobile traffic, such as community parks, schools, and other institutions. Pedestrian and bicycle trails will be created to ensure residents are connected to the village center. “Transitional Neighborhoods” will have much lower residential densities and typically located near sensitive areas, such as those that are largely agricultural, environmentally sensitive, or rural.