

# GATEWAY CITIES STRATEGIC TRANSPORTATION PLAN AND NEXUS WITH MOBILITY MATRIX

# **Executive Summary**

Prepared for:



Prepared by:
Cambridge Systematics, Inc.
445 S. Figueroa Street, Suite 3100
Los Angeles, CA 90071

March 2015



#### Overview

In February 2014, the Los Angeles County Metropolitan Transportation Authority (Metro) Board approved the holistic, countywide approach for preparing Mobility Matrices for Central Los Angeles, the Las Virgenes/ Malibu Council of Governments (LVMCOG), North County Transportation Coalition (NCTC), San Fernando Valley Council of Governments (SFVCOG), San Gabriel Valley Council of Governments (SGVCOG), South Bay Cities Council of Governments (SBCCOG) and Westside Cities Council of Governments (WCCOG) (see Figure ES-1). In lieu of a Mobility Matrix, the Gateway Cities Council of Governments (GCCOG) is developing its own Strategic Transportation Plan (STP). This document provides an overview of the STP effort and its relationship to the parallel Mobility Matrix projects and forthcoming Metro Long Range Transportation Plan (LRTP) update.

For the purposes of the Mobility Matrix, cities with membership in two subregions selected one subregion in which to participate. The Arroyo Verdugo subregion decided to include the cities of La Cañada Flintridge, Pasadena, and South Pasadena in the SGVCOG, and Burbank and Glendale in the SFVCOG. The City of Santa Clarita opted to be included in the SFVCOG instead of the NCTC. The City of Industry decided to be included in the San Gabriel Valley rather than the Gateway Cities. While the City of Industry's projects are included in the SGVCOG's mobility matrix, projects of subregional importance located in the City of Industry are also included in the STP.

Boundaries between the WCCOG and Central Los Angeles, and the WCCOG and SBCCOG, were modified based on Metro Board direction in January 2015.

In January 2015, the Metro Board created the Regional Facilities category. Regional Facilities include projects and programs related to Los Angeles County's four commercial airports (Los Angeles International Airport, Burbank Bob Hope Airport, Long Beach Airport, and Palmdale Regional Airport), the two seaports (Port of Los Angeles and Port of Long Beach), and Union Station. The projects/programs related to Regional Facilities have either been removed from the subregional Mobility Matrices or a Regional Facilities category created at the request of the subregion.

The STP includes analysis of all project categories that are inclusive of the GCCOG boundaries, including the relevant Regional Facilities and projects within the City of Industry. However, any duplicative projects will be reconciled through the LRTP process, scheduled for adoption in 2017.

### Project Purpose

The STP and the GCCOG's Mobility Matrix, are essentially one in the same, with the STP offering a significantly more robust analysis that quantifies the benefits of subregionally significant multi-modal regional linkages. The GCCOG's contribution to the Mobility Matrix includes all projects identified and included in the STP, and additional projects provided by GCCOG jurisdictions for inclusion in the LRTP update process.



The Gateway Cities STP, along with concurrent Mobility Matrix efforts in other Metro subregions, includes the development of subregional goals and objectives to guide future transportation investments, an assessment of baseline transportation system conditions to identify critical needs and deficiencies, and an initial list of projects and programs intended to address subregional

objectives. For the Gateway Cities subregion, the ongoing Gateway Cities STP effort has provided the evaluation and documentation information necessary to represent the subregion in Metro's forthcoming LRTP update. The STP remains under development, with an expected delivery date of December 2015.



Figure ES-1. Los Angeles County Mobility Matrix Subregions

STRATEGIC TRANSPORTATION PLAN OVERVIEW - GATEWAY CITIES



The purpose of the Gateway Cities STP is to develop and implement a unified inter-jurisdictional transportation improvement strategy that ensures effective management and consensus aimed at meeting subregional transportation goals and objectives. The STP is structured around four key elements:

- A **vision** for achieving future multimodal transportation goals in the subregion. The STP lays out a strategic vision for the future of multimodal travel in the Gateway Cities, including outlining a set of strategic transportation goals and objectives that cumulatively benefit member cities and regional stakeholders.
- A program of projects and initiatives to achieve these goals. The STP involves the development and analysis of an integrated program of projects and initiatives that address deficiencies in the subregional freeway, arterial, transit, park-and-ride, active transportation, goods movement, ITS/technology (including a zero-emission truck corridor) and storm water management systems.
- The development of new state of the art analytical models to evaluate program **performance**. A new three-tier model system allows for analysis of macro (regional), meso (sub-regional), and micro (corridorlevel) analysis of the impacts of the STP program elements. This new model framework allows for the evaluation of dozens of new performance measures. In addition, an updated air quality model allows for evaluation of air quality impacts.

■ A roadmap for implementation of the program. This includes a funding and financing plan, geometric designs for select priority projects, a zero-emission truck commercialization study, and a living model that can be used to pursue funding and implementation of the STP vision.

To review and approve elements of the STP, the GCCOG has established an STP Technical Advisory Committee (TAC), consisting of member city public works officials, and representatives of municipal transit agencies, and water quality representatives. In addition to the STP TAC, the process has involved the review of a multitude of prior studies and projects and extensive consultation and collaboration directly with city staff, subregional agencies, and private sector entities. This frequent stakeholder input has led directly to refinement and improvement of the STP program, and will continue through the proposed adoption of the STP, anticipated in late 2015.

### Subregional Overview

The GCCOG is a California Joint Powers Authority that represents the governments of 28 jurisdictions located in the subregion. Its members are the cities of Artesia, Avalon, Bell, Bellflower, Bell Gardens, Cerritos, Commerce, Compton, Cudahy, Downey, Hawaiian Gardens, Huntington Park, Industry, La Mirada, Lakewood, Long Beach, Lynwood, Maywood, Montebello, Norwalk, Paramount, Pico Rivera, Santa Fe Springs, Signal Hill, South Gate, Vernon, Whittier, and unincorporated areas of Los Angeles County. The GCCOG's mission is to provide member governments with a unified voice to act collaboratively and advocate to



improve issues related to transportation, air quality, housing, and economic development.

Based on data from the Metro 2014 Short Range Transportation Plan (SRTP) Travel Demand Model, the Gateway Cities Transit Assessment, Caltrans Traffic Accident Surveillance and Analysis System, and analyses performed for the Gateway Cities STP; key findings regarding the existing GCCOG transportation system include:

- The Gateway Cities Subregion has an approximate population of 1,988,000. Over the next ten years, subregional population is expected to increase six percent, with the highest increases in Santa Fe Springs (13 percent) and Long Beach (eight percent). Employment is expected to increase by four percent in the subregion.
- Approximately 67 percent of the trips generated in the subregion have destinations inside the Gateway Cities' boundaries as well. The next largest destinations are Orange County (nine percent), Central Los Angeles (nine percent), and South Bay Cities (nine percent). The average trip times for these destinations range from 22 to 32 minutes. By 2024, trips and average delays are expected to increase by approximately four percent and eight percent, respectively.
- Subregional safety is a major concern, particularly on freeways. Approximately 39 percent of the freeway system in the subregion features accident rates that are 30 percent above the statewide average for similar facilities. The safety problem is exacerbated

- by the large number of trucks accessing the Ports of Long Beach and Los Angeles.
- Transit services in the Gateway Cities include commuter and intercity passenger rail, light rail, rapid and express bus service, and local bus services. Service is provided by multiple operators, including Amtrak, Metrolink, Metro, Long Beach Transit, LADOT, and several local operators. These serve about 318,790 trips each weekday. Of these trips, approximately 311,000 board or alight in the subregion, and 7,770 pass through. The largest share of estimated ridership takes place on local and other buses (60 percent), followed by light rail (32 percent), rapid and express buses (5.5 percent), and commuter and intercity rail (2.5 percent).
- An average of 5,750 vehicles per weekday use the 18 park-and-ride facilities in the subregion, representing about 81 percent of the daily parking capacity of 7,130 vehicles. Several lots are at or near capacity.
- Combined, the Ports of Long Beach and Los Angeles represent the largest container port complex in the United States and the eighth largest in the world. More than 31 percent of all marine containers in the U.S. moved through these ports in 2012. As such, the Gateway Cities subregion is home to a complex goods movement system comprised of the ports, intermodal rail yards, warehouses, and transloading facilities, which are connected to an extensive network of highways and railroad lines which generate significant volumes of truck and train traffic. Goods movement in the subregion is anticipated to double or even triple over the next 20 years.



### Goals and Objectives

The Gateway Cities is home to the Port of Long Beach, the Alameda Corridor, large intermodal rail yards, truck depots, and vast warehouse and distribution centers. These goods movement facilities provide significant economic benefits for the subregion, but also results in significant community and regional impacts from truck and train activity, including historically poor air quality and limited mobility on surface streets and freeways. Furthermore, the Gateway Cities is home to a large transit-dependent population, with median household incomes seven percent lower than the Los Angeles County average.

Through the STP, the Gateway Cities have identified the following multimodal transportation goals, which are consistent with the county's overall framework consisting of six broad themes common among all subregions (see Figure ES-2):

### Mobility

- Reduce roadway congestion and improve travel times
- Improve system connectivity
- Provide increased transit and active travel options

#### Safety

■ Reduce safety incidents and collisions

### Sustainability

■ Improve air quality and public health

- Reduce greenhouse gas (GHG) emissions
- Improve quality of life

#### Economy

 Strengthen the economy through efficient goods movement and job creation

#### Accessibility

- Provide new multimodal access
- Increase service to low-income and transitdependent residents
- Improve first/last mile connections to transit

#### State of Good Repair

 Extend the life of existing transportation facilities and equipment

### Subregional Projects and Programs

An initial project and program list for the Gateway Cities STP was compiled from prior subregional and countywide studies, including unfunded 2009 LRTP projects; unfunded Measure R scope elements; and additional subregional needs. The project and program list was updated through an extensive outreach process to incorporate input from subregion stakeholders including each of the cities in the GCCOG, Los Angeles County, Caltrans, the Port of Long Beach, Long Beach Transit, and the GCCOG. Over 550 transportation improvement projects and programs were identified for the Gateway Cities.

Figure ES-2. Common Countywide Themes for All Mobility Matrices

# **Mobility**

Develop projects and programs that improve traffic flow, relieve congestion, and enable residents, workers, and visitors to travel freely and quickly throughout Los Angeles County.

# Sustainability

Ensure compliance with sustainability legislation (Senate Bill [SB] 375) by reducing greenhouse gas emissions to meet the needs of the present without compromising the ability of future generations to meet their own needs.

# **Accessibility**

Invest in projects and programs that improve access to destinations such as jobs, recreation, medical facilities, schools, and others. Access to transit service within reasonable walking or cycling range.

### **Safety**

Make investments that improve access to transit facilities; enhance safety, or correct unsafe conditions in areas of heavy traffic, high transit use, and dense pedestrian activity where it is not a result of lack of normal maintenance.

# **Economy**

Develop projects and programs that contribute to job creation and business expansion resulting from improved mobility.

# **State of Good Repair**

Ensure funds are set aside to cover the cost of rehabilitating, maintaining, and replacing transportation assets.



#### **Evaluation**

The STP effort has an involved detailed evaluation of the systemwide interactions of projects and programs in the Gateway Cities. Evaluation and summarization of results is ongoing, and results have not yet been approved by subregional stakeholders. As such, detailed evaluations of the STP projects are as yet unavailable. However, the development of new analytical tools, including a threetier traffic forecasting model and an updated air quality and greenhouse gas emissions model, will allow for a robust analysis of the performance of proposed projects as needed in the forthcoming Metro LRTP update. Final subregional project and program analysis results will be made available when the STP is complete, expected in late 2015.

# Implementation Timeframes and Cost Estimates

For consistency with the Mobility Matrix, the STP has included the development of high-level, rough order-of-magnitude planning-cost ranges for short-, mid-, and long-term subregional funding needs. Table ES-1 indicates anticipated Gateway Cities STP cost estimate ranges by project type. Note that implementation timeframes for STP projects are under development pending stakeholder and GCCOG review and will not be final until anticipated adoption of the STP. Several project costs remain unknown at this time. For the most part Table ES-1 reports only capital costs and omits costs associated with vehicles, operating, maintenance and financing.

Due to variations in project scope and available data, costs estimated for the STP are not intended to be used for future project-level planning. Rather, the cost ranges developed via this process constitute a high-level, rough order-of-magnitude planning estimate range for short, mid-, and long-term subregional funding needs for the STP effort only. More detailed analysis may be conducted through the Metro LRTP update process, which may necessitate refinement of project/program details and associated cost estimates.

Since the list was compiled from various sources, some of the projects in the list may overlap in scope or purpose, leading to duplicative costs in the cost matrix. Projects or programs that cross subregional boundaries may be included in neighboring subregional Mobility Matrix project lists as well. Where the same projects or programs are included in multiple subregions, the cost estimates include the total estimated project cost, not the cost share for each subregion. Any subregional cost sharing will be determined through future efforts.

### What's Next?

- Completion and adoption of the STP. Over the following several months, the STP TAC and member jurisdictions will be reviewing STP elements, with adoption of the final STP program anticipated in late 2015.
- Gateway Cities Prioritization of Projects. With limited exceptions, the STP study does not prioritize projects. Instead, it provides some of the information needed for decision makers to prioritize projects/programs, and an unconstrained list of potential transportation



projects/programs in the region. In preparation for a potential ballot measure and LRTP update (as described further below), the GCCOG should decide how it wants to prioritize these projects/programs assuming a constrained funding scenario.

- Metro Ballot Measure Preparations. Metro will begin working with the GCCOG to ensure subregional input as it starts developing a potential ballot measure. Part of the ballot measure work would involve geographic equity determination, as well as determining the amount of funding available for each category of projects/programs and subregions of the County.
- Metro LRTP Update. The potential ballot measure would then feed into a future Metro LRTP update and be integrated into the LRTP Finance Plan. If additional funding becomes available through a ballot measure or other new funding sources or initiatives, the list of projects developed through the Mobility Matrix and any subsequent list developed by the subregion could be used to update the constrained project list for the LRTP moving forward.



Table ES-1. Gateway Cities STP Summary Rough Order of Magnitude Cost Estimates

Type/ Category	Highway	Arterial	Transit	Active Transportation	Goods Movement	Other	Regional Facilities	Total
Total	Estimates for 69 out of 97 Projects \$12.4B – \$19.3B	Estimates for 160 out of 290 Projects \$1.1B – \$1.7B	Estimates for 38 out of 50 Projects \$6.9B – \$10.4B	Estimates for 54 out of 59 Projects \$210M – \$320M	Estimates for 8 out of 8 Projects \$5.9B – \$8.8B	Estimates for 30 out of 31 Projects \$2.3B – \$3.5B	Estimates for 18 out of 27 Projects \$852M – \$1.3B	Estimates for 377 out of 562 Projects \$29.7B – \$45.3B

Estimated costs in 2015 dollars.

These estimates under represent the operations and maintenance costs due to limitations of data availability. Costs are also underestimated due to projects and programs where cost estimate ranges are still under development.

Projects or programs that cross subregional boundaries may be included in multiple subregional project lists. Where the same projects or programs are included in multiple subregions, the cost estimates include the total estimated project cost, not the cost share for each subregion. Any subregional cost sharing agreements will be determined through future planning efforts. One exception to this in the Gateway Cities STP is the Green Line Extension from Torrance to the Metro Blue Line where the cost is included in the South Bay Cities Mobility Matrix.

Some cost estimates may be duplicative as the STP project list includes programs that may include some of the specific projects submitted by local jurisdictions.