



METROPOLITAN
TRANSPORTATION
COMMISSION

Bay Area Metro Center
375 Beale Street
San Francisco, CA 94105
TEL 415.778.6700
WEB www.mtc.ca.gov

Memorandum

TO: Administration Committee

DATE: February 7, 2018

FR: Executive Director

WI: 1122

RE: Contract Amendment – Travel Demand Model Development: Resource Systems Group, Inc. (\$350,000)

This memorandum requests the Committee's approval to enter into a contract amendment with Resource Systems Group, Inc. (RSG), in an amount not to exceed \$350,000, to continue to develop and improve MTC's travel demand modeling tools. This work is anticipated to commence on or before March 1, 2017 and to be complete by June 30, 2019.

Background

MTC maintains an analytical planning tool commonly referred to as a "travel model." This tool assists MTC in estimating the response of travelers to transportation projects and policies, as well as quantifying the cumulative impact of these individual traveler decisions on the Bay Area's infrastructure and environment. The purpose of the requested contract is to update a travel model in order to represent ride-hailing, a critical emerging mode, as well as to incorporate anticipated future modes such as shared and privately owned autonomous vehicles.

Additionally, several enhancements are required for development of the next Regional Transportation Plan, including representing transit crowding, capacity constraints and reliability, transit station parking lot choice, roadway reliability, and walk and bike network refinements.

On November 10, 2015, MTC issued a Request for Proposals (RFP) for firms to provide consulting assistance in the above-mentioned effort. MTC received two proposals, which were reviewed by an evaluation committee of MTC, Santa Clara Valley Transportation Authority (VTA), and San Francisco County Transportation Authority (SFCTA) staff. The evaluation criteria included the team's experience and expertise, project approach, cost effectiveness, cost, and writing ability.

WSP|Parsons Brinckerhoff (Oakland, CA) and RSG (San Diego, CA) submitted proposals. Neither firm proposed with a small or disadvantaged business enterprise. The evaluation committee unanimously recommended the RSG team based primarily on the firm's experience and expertise. Both firms presented well written, sound approaches to completing the project in a cost effective manner.

In March, 2016, the Administration Committee gave its approval to enter into a contract in an amount not to exceed \$205,000 with RSG to continue to develop and improve MTC's travel

demand modeling tools. This contract was amended twice in subsequent fiscal years and multiple travel behavior enhancements have been incorporated already, including:

- A much more detailed spatial representation of transportation system supply including an accurate all-streets network for entire 9-county Bay Area.
- Land-use and demographic forecast integration with UrbanSim represented at a 40,000 micro-analysis zone (MAZ) level.
- Detailed transit access/egress based on actual origin/destinations at the MAZ level considering boarding and alighting at specific transit stops allowing for a more accurate representation of walk times.
- More detailed temporal resolution using half-hourly time windows compared to hourly time windows in travel modeling.
- Explicit treatment of work travel, considering workers who work from home on a permanent, frequent, or infrequent basis.
- Enhanced treatment of destination end parking cost, who pays, and where people park.
- Enhanced representation of joint household travel.

The proposed contract amendment will include additional enhancements critical to performing analysis for the next Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). These enhancements include:

- Representation of ride-hailing, an emerging mode which has grown significantly since the development in travel models.
- Representation of anticipated future modes such as shared and privately owned autonomous vehicles.
- Explicit representation of transit crowding, capacity constraints and reliability, as well as transit station parking lot choice and transit parking lot capacity.
- Incorporation of roadway reliability into travel time.
- Walk and bike network refinements.

RSG is neither a small business nor a disadvantaged business enterprise and currently has no subcontractors for this project.

Recommendation

Staff recommends this Committee authorize the Executive Director or his designee to negotiate and enter into a contract amendment in an amount not to exceed \$350,000 with RSG to assist in completion of Travel Model upgrades required for the next RTP/SCS.



Steve Heminger

SH:lz
Attachment

REQUEST FOR COMMITTEE APPROVAL
Summary of Proposed Contract Amendment

Work Item No.:	1122
Consultant(s):	Resource Systems Group, Inc. (San Diego, CA)
Work Project Title:	Travel Demand Model Development
Purpose of Project:	Add features to travel models required for analysis for the next Regional Transportation Plan and other planning
Brief Scope of Work:	Incorporate representation of ride-hailing services, owned and shared autonomous vehicles, transit reliability, crowding and capacity constraints, roadway reliability, and walk and bike model enhancements
Project Cost Not to Exceed:	\$350,000 (this amendment) Total contract before this amendment: \$405,000 Total Authorized Contract after this amendment: \$755,000
Funding Source:	General Fund and Service Authority for Freeways and Expressways (SAFE)
Fiscal Impact:	\$150,000 is included in the FY 2017-18 agency budget and \$200,000 is subject to inclusion in the FY 2018-19 agency budget
Motion by Committee:	That the Executive Director or his designee is authorized to negotiate and enter into a contract amendment with Resource Systems Group, Inc. to continue Travel Demand Model Development, as described above and in the Executive Director's memorandum dated February 7, 2018, and the Chief Financial Officer is authorized to set aside funds in the amount of \$350,000 for such contract amendment, as specified above.
Administration Committee:	<hr/> Federal D. Glover, Chair
Approved:	Date: February 14, 2018