BROADWAY BOULEVARD
EUCLID to COUNTRY CLUB

RTA Regional Transportation Authority

BROADWAY BOULEVARD CITIZEN PLANNING TASK FORCE MEMORANDUM

TO: Broadway Boulevard Citizens Task Force

FROM: Broadway Boulevard Project Team

DATE: May 21, 2013

RE: Responses to Questions Regarding Projected Traffic Volumes

The CTF and Broadway Coalition members have questioned the accuracy of the traffic projections being used for the design of Broadway. The questions arise from the relatively low increase in traffic volume that has occurred in recent years. Demographic changes and their potential to lower traffic growth in the future have also been noted. The crux of the concern is that inflated projections not be used to justify a cross section of more than four travel lanes. This memo outlines actions that have been taken to address this issue to this point, and recommends an approach for dealing with this issue in moving forward with the Broadway project.

In response to information requested by the CTF, the following documents are attached:

1. Kittelson Engineering's response to Colby Henley's questions submitted November 15, 2012.
2. A white paper also by Kittelson describing PAG's methodology for estimating future travel demand and traffic volumes, and comparing its results to actual experience.

Technical responses to other design-related questions and suggestions by the CTF and public are being prepared and will be presented as they become available over coming months.

The fact is that the growth rate of traffic volume, measured as "Annual Vehicle Mileage" (AVM) has slowed and even reversed over the last several years. The table to the right shows average rates of AVM in urban areas in the U.S. and Arizona based on information developed by the USDOT. It can be seen that the rather substantial rates experienced in both cases prior to 2004 dropped significantly in the 2005 to 2007 period. From 2008 to 2011, AVM actually diminished. As noted in Kittelson's earlier work, PAG traffic counts performed in 2007 and 2010 reflect a similar trend for major east-west arterials of Broadway Boulevard, Speedway Boulevard, and 22nd Street.

Average Growth of Annual Vehicle Mileage (AVM) in Urban Areas

	U.S.	Arizona
1997-2004	+2.8%	+5.2%
2005-2007	+1.8%	+2.8%
2008-2011	-0.3%	-0.6%

A number of reasons have been put forward for this. Todd Litman of the Victoria Transport Policy Institute suggests that it can be attributed to demographic trends. In *The Future Isn't What It used To Be*, he cites as examples "aging population, rising fuel prices, increasing urbanization, increasing traffic congestion, improving travel options, increasing health and environmental concerts, and changing consumer preferences." Economic activity, which has to some extent mirrored the trends in AVM, is likely a factor as well. With respect to Broadway, it is also necessary to consider

countervailing factors such as the ongoing surge in downtown development and, if all goes as intended, the Broadway Corridor developing as more of a destination in its own right.

Population growth is also an issue. Pima County has experienced robust growth over many decades, but there are signs that this too is waning. Recommended 2050 projections recently released by the Office of Population and Statistics in the Arizona Department of Administration for Pima County are lower than the 2040 values - by -3%, -14% and -27% - for the state's high, medium, and low population growth projections respectively. The growth rate to be adopted by PAG has not yet been determined, nor has the effect on projected traffic volumes for Broadway. That process will likely take a year or more to play out.

How this information can be quantitatively applied to Broadway, or even if it should, is not clear at this point. As Kittelson Engineering's travel demand white paper points out, PAG's modeling process does *not*, at least in this case, overestimate traffic volumes. Current PAG modeling for existing conditions in fact understates the current traffic volumes on Broadway.

AVM trends, over a several year period, do not in themselves provide a sufficient technical basis for reducing PAG's projected traffic volumes. Newly generated PAG values would constitute such a basis though it will be some time before that information is available.

Our approach to date for dealing with this issue has been to carry forward two traffic growth scenarios -- one using PAG's current projections which reflect an approximately 26% growth rate in traffic volume by the year 2040, and a second "lowered" set of projections that assumes a 17% growth rate, which assumes a growth rate that is a third lower than PAG's.

This approach serves two ends. It provides an indication of the extent that different growth projections would influence the corridor design. It will also determine if the lowered traffic projections would result in substantial other benefit to the community (such as a significant reduction in the number of impacted historical structures). This would allow the City and other project sponsors the choice of making an informed policy decision to use the lower rate on the basis of the other benefits that would be incurred.

<u>Recommendation:</u> The project team recommends continuing with the current approach of using both the current and reduced 2040 traffic growth values for this project. We expect that the full and lowered growth scenarios will bracket the 2050 PAG traffic projections that are ultimately developed. We will of course monitor that process and make adjustments if necessary.

In the meantime, using both sets of volumes will provide us with a good understanding of what the choice of traffic projections has on the design of the project (including costs and impacts), and provide the ability to make informed choices regarding the benefits and the tradeoffs if various decisions that will inevitably be encountered.

NOTE: The following project documents discussed with the CTF to date can be found online at http://cms3.tucsonaz.gov/broadway/broadway-documents-studies:

- Broadway Traffic Study, dated March 2012
- Special Traffic Analysis, dated August 30, 2012