



**PIMA COUNTY**

**TRANSPORTATION**

**MEMORANDUM**

**DATE:** January 5, 2016

**TO:** John M. Bernal, Deputy County Administrator – Public Works

**FROM:** Priscilla S. Cornelio, P.E., Director of Transportation *Priscilla Cornelio*

**SUBJECT:** RTA Project 21 - Valencia Road, Ajo Hwy to Mark Road: Project Cost Comparison

In response to your recent email, I would like to provide the following cost information for the Valencia Road corridor.

- Original 2005 Regional Transportation Authority (RTA) Estimate: \$41.59 Million
- 2006 RTA Ballot Amount: \$38.157 Million
- Current Corridor Estimate: \$45.55 Million

In general, the differences between the original RTA estimate and the current project estimate can be associated with three primary categories.

1. Level of Detail: The original RTA design and associated estimate was developed only to the 15% level, which is not enough detail to accurately account for all the necessary items, features and elements. The RTA estimate, including contingency, construction management, and utility efforts totaled \$35.9M. However, based on costs from the initial phase currently under construction as well as preliminary estimates for the remaining portion, it appears that this was under-estimated by approximately \$724K. While there is not a singular element that accounts for this variation, it appears that the earthwork (average of a 2' fill) and the overall pavement costs were primary features that were under-estimated compared to what is currently being constructed.
2. Right-of-Way Acquisitions: The RTA estimate identified \$450K for these costs, which are now estimated to be closer to \$700K for the corridor. This increase can be attributed to efforts associated with acquisition of state land property (for drainage easements) along the south side of Valencia Road, as well as the need for additional right-of-way width along the corridor west of Wade Road.
3. Planning, Design, and Environmental Mitigation: The original RTA estimate allocated \$4.9M for this work which was based on 15% of the estimated construction cost, rather than based on an actual estimated level of effort needed to develop the project. The current estimate for this effort is closer to \$7.9M, which includes the following items not originally accounted for:

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- a. Project Phasing - The project was split into multiple phases as funding for the entire corridor was not initially available. This required additional planning/design work needed for each respective project segment.
- b. Black Wash – This is a significant watershed, and the need to focus on this element, along with how the flows would be handled, both upstream and downstream of the new roadway were critical. During the design phase, there was an increased level of effort necessary to model and account for the flows associated with Black Wash, along with designing appropriate inlet and outlet features.
- c. City of Tucson 42” Transmission Line - This line runs along the southern right-of-way of the roadway corridor. During initial planning, it was determined that any relocation efforts associated with this line would have a significant impact on the project and could place the completion of the project in jeopardy. Additional design and coordination activities were needed to account for the line’s location and design drainage and roadway structures away from the line.
- d. Federal Funding – The initial construction phase of the corridor (Mark Road to Wade Road) was funded with federal funds, which required additional environmental clearance efforts, additional coordination, and additional review time as well as an overall increase in level of documentation and coordination effort involved.
- e. Developer Coordination – There has been the need for increased level of effort with developers throughout the corridor it is anticipated that this will continue throughout the remaining project phase, as development activities in this area continue to progress.

Lastly, the RTA contribution amount of approximately \$15.057M, was established based on the projected impact fee revenue that was anticipated to be available in this region due to the growth and development that was anticipated to occur.

I trust that this provides you with the information you need. Should you have any further questions, or require any additional information, please feel free to contact me at 724-6410.

PSC:RE:dg