

**BROADWAY CORRIDOR STUDY  
TRANSIT STUDY**

Recommendations by W. Eugene Caywood – December 5, 2013

**INTRODUCTION**

On behalf of the Southern Arizona Transit Advocates (SATA), I have been suggesting that the ongoing study of the Broadway corridor between Euclid and Country Club be expanded to make definitive decisions about transit. There are at least three reasons I believe this should be done:

- Give assurance to stakeholders that they will not have to endure another, later study that could substantially alter the conclusions of the current study.
- Identify infrastructure improvements that can/should be built now as part of any roadway widening in order to minimize future disruption to traffic and businesses.
- Provide sufficient data to confidently predict funding needs, and using them identify adequate potential funding sources to build the balance of a transit project.

In order to do the above, the expanded transit study element must first make basic decisions and assumptions about the future High Capacity Transit (HCT) mode or modes to be operated along Broadway. Further, it must make specific (and permanent) alignment decisions to allow certainty regarding placement of infrastructure improvements built with any roadway widening. Finally, the expanded study must define the future HCT system to a level sufficient to make decisions regarding alignment width and location, and right-of-way and other space requirements.

**ASSUMPTIONS**

In addition to the above, I feel it is necessary to make some additional assumptions relating to expanding the study of transit along Broadway:

1. Federal funds will not be available to build a transit project in the Broadway Corridor. This was made abundantly clear by speakers at last month's Arizona Transit Association's Rail Conference, including Barbara W. Reese with Parsons Brinckerhoff in Virginia, and State Senator Steve Farley.
2. Therefore, a full study following FTA Alternatives Analysis guidelines is not necessary and should not be conducted.
3. We have sufficient data and information from the recent Modern Streetcar Project to answer most non site-related questions.
4. Without federal funding it will be necessary to carefully determine what we absolutely have to have versus what we can live without, and thus pare down costs to the bare minimum.

**RECOMMENDED STUDY ELEMENTS**

1. Mode decisions –
  - a. Confirm or revise conclusions of the PAG HCT Study. Including prioritization of implementation of the three recommended modes
  - b. Importance:
    - i. With a Bus Rapid Transit (BRT) alternative, exclusive lanes should be provided and paved with any roadway widening
    - ii. With a rail alternative, grading should be done as part of any roadway work to provide the roadbed on which track can be placed later. This is critical to assure

proper drainage without having to do major alteration to the roadway and ancillary facilities in the future.

- iii. With an electric powered rail alternative, street light poles should be placed where they can also serve to support Overhead Conductor System (OCS), and be designed with sufficient strength to support OCS.

2. Alignment decisions –

- a. Determine destinations for various HCT modes – they may not all be the same. The PAG HCT Study assumes they all terminate downtown, but the University of Arizona campus is a much larger destination than downtown.
  - b. Determine location within the broader study corridor – on Broadway, or off Broadway – if the latter, examine alignments defined by SATA – 6<sup>th</sup> St., 9<sup>th</sup> St., 10<sup>th</sup> St., Arroyo Chico-13<sup>th</sup> and Arroyo Chico-15<sup>th</sup>.
  - c. Select a firm alignment, including stop/station locations, in conjunction with the roadway alignment alternative decision process.
3. Nature of the system – define only to the extent necessary to identify the items in element 4.
- a. Characteristics of BRT buses, various potential streetcars, and light rail vehicles.
  - b. Type of/requirements for OCS, including poles and substation locations
  - c. Will rail be embedded or ballasted?
  - d. Potential requirements/sites for streetcar or Light Rail vehicle maintenance facility
4. Infrastructure that should be done with any roadway widening – the ones I can think of are:
- a. Roadway grading and pavement, or rail roadbed grading.
  - b. Combination street light/OCS poles
  - c. Utility relocations limited to those for roadway widening – Very important – don't want to have to relocate utilities twice, once now for roadway and again later for transit.
  - d. Advance infrastructure elements of the transit design that can/should be built with any roadway improvements to the same level of design as all other roadway improvements.
5. Preliminary cost estimate
- a. With regard to a BRT element, costs for roadway should be the same as for other project elements.
  - b. With regard to a rail element, suggest beginning with costs from the Modern Streetcar Project, then carefully reviewing them to see if/where savings can be made.
  - c. Costs should assume no federal dollars used, no consultants (other than the current team) hired, limited utility relocation.
6. Funding options
- a. General fund
  - b. RTA (existing and future)
  - c. Districts (Improvement and Special)
  - d. P3's (Public/Private Partnerships – example could be El Con)
  - e. Other

## CONCLUSION

A limited transit study should be conducted as part of the ongoing Broadway Corridor Study. It should make definitive decisions with regard to mode and alignment of future HCT and define the nature of future HCT to a minimum level, identify infrastructure that logically should be build with any roadway widening in order to minimize future disruption, and project costs to a level sufficient to enable identification of adequate funding.