Meeting Notes

Meeting Date: **September 29, 2009**

Subject: **Commuter Rail Yuma West Corridor – PRT Meeting**

In Attendance:

Kevin Wallace, MAG
Marc Pearsall, MAG
Rick Pilgrim, URS
Dawn Coomer, City of Tempe
Matt Carpenter, URS
David Schwartz, Goodman Schwartz
Megan Casey, Goodman Schwartz
Ken Galica, City of Avondale
Connie Randall, City of Phoenix
Jennifer Pyne, URS
Mark Melnychenko, City of Phoenix
Sean Banda, Town of Buckeye
Rogene Hill, City of Avondale

Introduction

Marc Pearsall, MAG, initiated the meeting by introducing the presentation, which followed the agenda as outlined:

- Overall Project Progress
- Ridership Forecasting
- Preliminary Cost Estimate Information
- Vehicle Options and Recommendations
- Maintenance Facility Options and Recommendations
- Next Steps

Overall Project Progress

Rick Pilgrim, MAG Study Team, reviewed the project progress since the June PRT meeting. The Study Team has completed two rounds of ridership forecast modeling, completed preliminary work on cost estimates, and assessed vehicle technology and maintenance facility options. The Study Team is working with the new contact at the Union Pacific (UP) Railroad. They had a meeting on September 28th to discuss commuter rail. Rick explained that the railroads need a financial reason to move forward with commuter rail, and UP considers the tracks in the Phoenix area to be part of their core system. UP is not likely to be willing to share those tracks, which means other options will need to be considered. This will be discussed in further detail at the next PRT meeting.

Ridership Forecasting

Jennifer Pyne, MAG Study Team, provided an overview of the ridership forecasting process. The first step consists of preliminary model runs, which modeled maximum service if unbounded by cost to define the limits of ridership. The second step consists

of base model runs, which look at each corridor individually to start, and then interlined scenarios with other corridors. The next step consists of sensitivity test model runs to look at frequency and run time. The last step is systems analysis and corridor prioritization.

Rogene Hill, City of Avondale commented that a model run is needed that includes a "no-build" scenario for the 801 freeway, which is currently still in the General Plan but that may change. Jennifer Pyne responded that the MAG Study Team is currently devising an approach to the third round of modeling to sensitivity testing that will incorporate many other factors.

Rick Pilgrim discussed a peer city comparison of recent commuter rail systems in other cities in the US and the ridership levels on those systems.

Jennifer Pyne presented the results of the preliminary model runs. The results indicated that for the Yuma West Corridor, Arlington station was the lowest performing station with fewer than 50 daily boardings. As a result, the Yuma Base Scenario was shortened to Buckeye.

The inputs and assumptions for the base model run include 31 miles of track from Central Phoenix to Buckeye, headways of 30 minutes peak and 60 minutes off-peak, nine stations and a travel time of 47 minutes. The base model run results show total daily boarding of 1,420. Boardings by station are as follows:

Central Phoenix	220
State Capitol	130
West Phoenix	130
Tolleson	110
Downtown Avondale	100
Downtown Goodyear	260
West Goodyear	180
Liberty	100
Buckeye	190

Rick Pilgrim added that in round three modeling, off-peak service can be reduced to save costs. Marc Pearsall also commented that the base model runs are not interlined, meaning that the model only looks at Yuma West Corridor as a stand-alone corridor. The numbers may change once it is taken into consideration with other potential corridors. Rick also clarified that plans in the Regional Transportation Plan are used in the model.

Kevin Wallace, MAG, commented that the Phoenix area is a little different from peer cities in that there is not a large downtown area like there are in the peer cities. This results in a lot of intra-corridor travel in the model.

Mark Melnychenko asked if it would be practical to end the Yuma West Corridor at the 79th Ave park and ride and riders could then use light rail to get to downtown, since light rail along the I-10 is included in the model. Rick Pilgrim replied that there would be a short distance between commuter rail and light rail, so a shuttle would have to be used for the transfer. In order to get the most riders on commuter rail, it is important to maintain travel times that are faster than other modes of transportation. The more transfers there are, the more travel time increases, which would have a negative effect on ridership.

Jennifer Pyne presented a brief summary of the daily boardings for all five corridors included in the Regional System Study, which is currently being undertaken by MAG. The Southeast corridor has the most daily boardings (6,450), Grand Ave has the second-highest (2,830), followed by Chandler (2,240), Yuma West (1,420) and Tempe (950). Jennifer reiterated that these boarding numbers are for each individual corridor studied independently.

In order to compare systems of different length, boardings per revenue mile was calculated. Yuma West has 1.0 boardings per revenue mile, lower than the national average of 1.5. Rick Pilgrim reminded the group that the round three modeling will change the off-peak service and that will affect this number; looking at just on-peak boardings per revenue mile, Yuma West has 1.6, exceeding the national average.

Jennifer Pyne reviewed the peak period mode of access for the Yuma West corridor, broken down by those who drive, transfer from other modes of transit and walk. The existing and planned bus system in the Yuma West Corridor is less robust than in other corridors. This may be affecting ridership for those who are not able to drive to a station.

Jennifer Pyne also reviewed the base model run observations. Overall, there is heavy peak use and low off-peak use. The Yuma West Corridor has lower overall ridership than other corridors. The highest boardings occur at the Central Phoenix and Downtown Goodyear stations.

Marc Pearsall clarified that the Downtown Goodyear station is Litchfield, and Estrella Parkway is West Goodyear, and these locations were placeholders given by the City of Goodyear. The model isn't so sensitive that moving a station for a half mile or so will affect the results. True station planning will take place during an environmental study farther along in the process.

Connie Randall, City of Phoenix, asked what the model uses for travel distance from the stations. Rick Pilgrim answered that there is an 8-mile radius around each station. Connie commented that she thought this was a conservative distance and that there could be missing growth. Rick said the distances are based on Phoenix information from rapid transit studies, but they are considering looking at a 10-mile radius in future model runs.

Preliminary Cost Estimate Information

Rick Pilgrim, MAG Study Team presented the initial observations on the Yuma West capital cost estimates. As expected, the first mile of the corridor is the hardest and most expensive. Just to initiate basic service requires substantial costs to address extensive railroad issues near downtown Phoenix and would require a lot of separation from railroad operations. Adding additional service beyond the start-up mile is significantly less expensive. The biggest cost items are: vehicles, trackwork and track upgrades, quiet zones (which result in costly safety issues) and contingencies. The extra track costs to extend from Buckeye to Arlington may not be cost-effective for a 2030 start up given extremely low ridership. It could be more cost-effective to plan for this section in 2050 and beyond.

Ken Galica, City of Avondale asked about Yuma West freight traffic and how that will work with commuter rail service. Rick Pilgrim replied that the MAG Study Team had thought it was a manageable arrangement, but at the meeting with the Union Pacific (UP) representative it was clear that UP sees it differently. The track does belong to UP, so at this point the Study Team is working to outline positions and see how to proceed. UP essentially sees the track as part of its core operations, so it may not be possible to share the existing track for commuter rail service.

Sean Banda, Town of Buckeye said that he believes UP wants to build a switchyard in Buckeye, which will only increase freight traffic. Marc Pearsall added that the switchyard (to be located between Palo Verde Rd and Bruner Rd) is included in the model. Kevin Wallace said that UP mentioned the Buckeye-Queen Creek section several times in the past discussion, so MAG needs to ensure that the UP position is understood and will work to continue to clarify in future talks.

The next steps are to continue to refine the cost estimates, including refinement of contingencies, prepare cost estimates for other corridors for comparison purposes, and begin cost-effectiveness evaluations of this corridor.

Vehicle Options and Recommendations

Rick Pilgrim presented the vehicle technology recommendation. Locomotive hauled coaches (LHCs) are powered by one diesel-electric locomotive engine, which pulls the train in one direction and pushes the train in the other. A cab car with operating controls is put on one end of the train and a locomotive at the other end. LHCs can run with 2 to 12 cars with a seating capacity of 140 passengers in each double-deck passenger car. LHCs are Federal Railroad Administration (FRA)-compliant, meaning they meet federal requirements for crashworthiness and can share tracks with freight trains and operate concurrently with freight traffic. LHCs are used extensively in commuter rail systems throughout the US using off-the-shelf proven technology. Rick noted that it is common for cities to combine orders to save costs, and that used cars may even be an option.

Rick also presented information on LHC clean diesel technology. There are new EPA clean diesel standards. The Maryland Area Regional Commuter (MARC) Rail System introduced new fleets of "green" locomotives that can reduce emissions over their current fleet. Several commuter rail systems throughout the US are testing the use of alternative fuels.

Maintenance Facility Options and Recommendations

Rick Pilgrim presented information on commuter rail maintenance facility (CRMF) options. A CRMF facility would repair, maintain, clean, fuel and store commuter rail vehicles. A facility near downtown Phoenix would make the most sense with so many corridors in the system. Rick added that the railroads could potentially take on maintenance within existing structures, but assuming that several corridors will be built in an overall system and facility could be needed. There is also an option to outsource heavy repairs in a one-corridor scenario.

There is also a need for layover facilities that are smaller than a maintenance facility. These would be used for vehicle storage and minor vehicle cleaning and inspection. Layover facilities at the end of the line would store at most half of the fleet so they are ready for the morning runs. They could also handle safety checks that are needed when trains are parked. These facilities are being taken into account in the cost estimating work being done.

Rick Pilgrim reviewed the criteria used to identify facility recommendations: ability to consolidate and/or share space with existing facilities, end-of-line locations and existing industrial zones. Potential CRMF/layover facility locations on the Yuma West corridor are Campo and Buckeye.

Mark Melnychenko, City of Phoenix asked if a CRMF facility could be located near the light rail facility because it makes sense to keep the industrial facilities together from a planning perspective. Marc Pearsall answered there is a site near the LRT facility that the owner did not wish to sell at the time the facility land was purchased, but that could potentially change in the future.

Next Steps

Rick Pilgrim reviewed the next steps for the study. The next round of modeling and finalized cost estimates and implementation requirements will be completed by the end of October. In November and December the Corridor Development Plan will be prepared.

Sean Banda, Town of Buckeye commented that there are developments coming to Buckeye within the next five years that should be included in the 2030 model.

Rogene Hill, City of Avondale commented that it is hard to see the peer cities as peers because they are so different. She asked how the peer cities were chosen. Rick Pilgrim answered that the peer cities all have commuter rail west of the Mississippi that were developed post WWII development, which is similar to the Phoenix area. Kevin Wallace added that this area is unique, and that no other region like ours has commuter rail. He suggested that "peers" may not be the correct term, but that looking at other systems will be helpful in MAG's analysis. Rick suggested changing the terminology to "commuter rail system comparisons." Marc Pearsall added that systems in Minneapolis and Denver may provide better comparisons, and those open in 2010 and 2013, respectively. Rick also added that all the systems are relatively new, and the full land use response hasn't yet been seen.

Rogene Hill also expressed concern with the ridership numbers. Kevin Wallace said that ridership is not the only consideration in the study; costs and operating scenarios will also be taken into consideration.

The next Grand Ave PRT Meeting is scheduled for Thursday, November 19, 2009 at 1:30 pm.