Silverbell Road Task Force
Wednesday, April 7, 2010

Summary of Meeting #6

The sixth meeting of the Silverbell Road Task Force (SRTF) took place from 6:00 to 7:50 p.m. at Luz Academy, 2797 N. Introspect Drive, Tucson, Arizona. In attendance were the following members of the Task Force:

Kendall Elmer, Pima County Neighborhoods
Judith Meyer, Pima County Neighborhoods
Barbara Whitaker, City of Tucson Neighborhoods
Sandy Fagan, City of Tucson Neighborhoods
Frank Stryker, City of Tucson Businesses
Bradley Lang, City of Tucson Businesses
Michael Mencinger, Regional Transportation Authority
Julie Prince, City of Tucson-Pima County Bicycle Advisory Committee
Gale Marsland, Pima County Businesses
Hurvie Davis, Town of Marana Neighborhoods
Robert De La Cerda,
Midge Hardy, City of Tucson Businesses
Wain Cooper, Regional Transportation Authority
Angela Wagner-Gabbard, Town of Marana Neighborhoods

SRTF member Josh Wright, representing Town of Marana businesses, was absent.

Also present were:

Andy Dinauer, Project Manager, City of Tucson Department of Transportation
Jim Schoen, Project Manager, Kittelson and Associates
Jason Simmers, Lead Engineer, Kittelson and Associates
Jose Ortiz, City of Tucson Department of Transportation
Yuri Mereszczak, Kittelson and Associates
Darlene Showalter, McGann Associates
Rick Ellis, Pima County Department of Transportation
Bill Zimmerman, Pima County Regional Flood Control
Jose Ortiz, City of Tucson Department of Transportation

1. Call Meeting to Order – Confirm Quorum

2. Introductions of SRTF Members and Project Team

Members of the Task Force and Project Team introduced themselves.

3. Approval of SRTF Meeting Summary of February 3, 2010

Several corrections to the March meeting minutes were requested. The SRTF conditionally approved the March meeting minutes with the requested corrections. Revised minutes will be forwarded to the SRTF with the April draft minutes.

4. Announcements

a. Review of Task Force Ground Rules

Jim noted that a status report for the RTA program was available and encouraged the CTF members to pick one up.

The next round of project open houses is being scheduled for the 2nd week of June.

5. Staff Reports, Presentations and Discussion

a. Status Update on Concerns from March SRTF meeting

- **Bus stops and future routes -** Representatives from SunTran have been invited to attend the May meeting to discuss future routes and bus stops within the Silverbell corridor.
- **Right-of-way requirements** - In May, the preliminary roadway design we will be far enough along to provide a fairly clear understanding of right-of-way impacts. The Project Team will meet with all property owners to discuss potential right-of-way impacts. The impacted properties will be provided to the CTF in advance of the June meeting
- **Median opening south of El Camino del Cerro at the church -** City of Tucson Traffic Engineering has been asked to take a closer look at the proposed median opening located some 400 feet south of the signalized intersection to determine if it will adversely impact traffic operations or safety. The Project Team is also looking at the possibility of moving the church driveway and median opening further south; however that will depend upon the drainage culvert required just south of the current driveway location. Operationally, the Project Team feels that providing a median opening closer than 600 feet to the signal, which is the City's desired minimum distance, will reduce potential long queues of U-turning vehicles that may occur at the next median opening to the south if a median opening is not provided. The City's response on this item will be forwarded to the CTF at the next meeting.

b. Wildlife Crossing Discussion

- Jim provided a summary of the results of the wildlife crossing study that was prepared for the Silverbell Corridor by SWCA, an environmental consultant on the Project Team.
- The study was performed to identify wildlife movement within the corridor, identify impacts of widening the road on various species, and define potential mitigations to appropriately address wildlife crossing needs.
- A draft report has been prepared and is being circulated for agency review. Once the report has been finalized, likely in May, it will be posted on the project website.
- The study results and recommendations were summarized as follows:

  1. 5 priority wildlife crossing corridors were identified; 3 in the north section and 2 in the south section
  2. The study identified the focal species as the bobcat. Several CTF members questioned why the bobcat was selected over other larger species such as the mountain lion, coyote, javalina. Jim indicated that he could not answer that question and would have the environmental consultant attend the next meeting to respond to specific questions regarding the study approach, results, and recommendations.
  3. The study made several recommendations regarding drainage crossings, including slight increases to culvert sizes at several locations, replacing box culverts at 3 locations with bridges, and the addition of small pipe culverts to accommodate some smaller

species. Several CTF members are concerned that smaller pipes (24") could present a safety hazard to children.

i. Install dense vegetation at culvert inlets and outlets and sparse vegetation along the roadway.

ii. Install fencing at selected locations to channel wildlife to larger culverts. The CTF requested more information on the proposed fencing, including height, type, color, distance from the roadway, and treatment at driveways. Jim indicated that this information will be discussed in the report. Rick Ellis, who participates on the RTA wildlife linkage subcommittee, indicated that previous studies have shown that fencing is an effective technique. The RTA has commissioned a study to evaluate wildlife fencing in Pima County.

Gale wondered how fencing would be handled at driveways. Jim indicated that there would need to be breaks in the fencing at driveways and side streets, however the fencing would likely extend some distance up each driveway or side street. Barbara noted that while the study supports the use of fencing, it could be devastating to the aesthetics of the corridor. Angela suggested that the impact on aesthetics could be mitigated by painting the fence and by using landscaping to hide it.

iii. Keep street lighting at least 200 feet from each culvert crossing.

iv. Provide ramps at drop inlets that will provide a more gradual entry into a culvert.

Although not related to wildlife crossings, Brad expressed concerns about maintaining the landscape so that weeds do not get out of control like has occurred on the section of Silverbell south of Grant. Andy indicated that landscape would be maintained, however that the frequency of maintenance has been significantly impacted by budget cuts. Brad also noted that he was unclear on the difference between a raised 6" curb and header curb and why the 6"curb had been selected for Silverbell. Members of the Project Team noted that a raised 6" curb provides better separation between on-coming traffic and prohibits drivers from cutting across the median at any location. Header curb does not provide an adequate barrier and will result in greater maintenance of median landscape. Judith noted that the committee came to a consensus on their preference of raised curb over header curb at a previous meeting.

c. Continuation of Drainage Crossings Discussion

- Design criteria – Jim summarized the criteria that the Project Team is following to determine appropriate the size and type of drainage culverts and channels needed to handle drainage within the corridor.

1. Culverts need to provide sufficient capacity to carry the 100-year storm event under road. The 100-year storm event essentially defines the volume of runoff that each agency requires for roadway drainage facilities.
2. Flood limits upstream and downstream of the culverts cannot increase on private property. There is some flexibility to increase flooding limits on public property, although it is not desirable.
3. Minimize permanent impacts to washes under the jurisdiction of the U.S. Corps of Engineers. Permanent impacts include placement of culverts and hard surfaces at culvert inlets and outlets, grading and removal of existing riparian vegetation.
4. Protect culvert inlets/outlets from erosion. This is typically done using concrete or rip-rap aprons.

5. Minimize project costs by reducing the increase in roadway elevation, use of drop inlets, and minimize the size of culverts.
6. Reduce ROW needs by using hard surfaces for channel slopes and bottoms, if possible. Keeping washes completely natural could require more right-of-way.

- Review of a drop inlet structures – Jim provided an example of a drop inlet structure and explained why we will need to utilize them on many of the culverts on Silverbell Road. He noted that the primary reason is to minimize the amount that the roadway elevation will need to be raised. In order to better accommodate wildlife the Project Team will look at the possibility of minimizing the slopes of the inlets, however we will need to be cautious of the permanent impacts on each wash, which the Corps wants to minimize. Michael was concerned that the drop inlets need to be designed to accommodate maintenance. Jim noted that the drainage design will be reviewed by agency maintenance staff to identify potential problems. He also noted that one benefit of a drop inlet is that it increases the velocity of water entering a culvert which flushes out sedimentation. Wain asked whether additional right-of-way will be required for culvert maintenance. Jim responded that drainage easements will be acquired, as necessary, to allow for access to the culverts for maintenance purposes.

- Review of drainage crossings – Jim spent a few minutes presenting the preliminary drainage designs for the larger washes within the corridor. He noted that the sizes of several culverts were increased based on the recommendations of the wildlife crossing report.
    1. Sweetwater wash – 6 cell box culvert with each cell 10' x 5'
    2. Roger Wash – 6 cell box culvert, with each cell 12' x 8'
    3. Trails End Wash – 4 cell box culvert with each cell 12'x 8'. The initial inlet to this culvert included a wide concrete collector channel, however, after further analysis, the Project Team is evaluating other options to eliminate the collector channel. These options include simply adding pipe culverts on each side of the box culvert. Gale asked about the impact of the proposed culvert on a large well-established Palo Verde located within this wash. Based on the location of the tree just west of the existing roadway, it appears that this tree will need to be removed. Darlene added that salvage and relocation of such a large Palo Verde is typically not successful as the roots are very spread out within the sandy wash.
    4. Adjacent to the golf course driving range, it appears that the proposed channel can be natural (i.e. sandy bottom). A small berm between the channel and the driving range will be needed to prevent the range from flooding.
    5. De Oeste Wash – two short bridges instead of box culverts are proposed. The bridges will provide the necessary capacity as compared to a multi-cell box culvert. Midge questioned why a bridge is being proposes north of Neosha, when a large volume of storm runoff at this location has not been observed going back to the 1983 and 1993 floods. Jim noted that the Project Team has evaluated this drainage area in significant detail and the results indicate that in the 100 year event, runoff will break out of the wash upstream of Silverbell Road, and cross Neosha to the north. He indicated that this drainage area and the proposed solution may have to be revisited.
    6. Speedway Wash - the existing box culvert will be extended
    7. Nursery Wash – a single cell, 10' x 4' box but will be required. The wash running through the Silverbell Nursery property will need to be a hard channel in order to minimize right-of-way requirements.

8. Wain asked whether parallel channels along the roadway will be required to capture and carry runoff from adjacent slopes to nearby washes. Jason indicated that in some locations, natural parallel channels will be provided for this purpose.

d. Landscape/Water Harvesting Introduction

Darlene Showalter of McGann Associates, presented an outline of the process followed to develop an appropriate landscape concept for the Silverbell corridor. She identified differing character, landscape, and visual features within the corridor. From Goret to Grant, the character is more urban and as such landscaped buffers between the roadway and residential/commercial properties are relatively narrow. She identified the existing plant communities along Silverbell Road. Existing visual features include sheltering hills to the west and expanding vistas to the east. In some areas, existing residential development entrances tend to be disjointed. Darlene also introduced landscape opportunities and constraints to consider, including:

- Plant species selection will primarily focus on the use of native or near native plants. Near native plants are those that are not common to the Sonoran Desert, however are commonly used within the Tucson basin.
- Landscape maintenance needs will be a significant issue. Rick Ellis noted that recently, Pima County has been minimizing median landscaping to reduce irrigation and maintenance requirements and costs.
- Concern for water conservation – 2 types of irrigation will be used, including low water drip and water harvesting techniques. Depressed medians will capture and hold water within the median. Check dams placed in parallel drainage channels within the shoulder and at the bottom of slopes will slow water and allow more of it to percolate into the soil. Frank questioned whether it is actually water harvesting if pavement runoff is not being diverted into the medians. Andy noted that in the past, medians were graded with a crown and no water was captured. The use of depressed medians can harvest significant amounts of water.
- Various fill slope treatments will be utilized, including seeded slopes and exposed rock surfaces. Use of differing rock shapes and colors can significantly improve the aesthetics of exposed rock slopes. Angular shaped rock is currently popular.

Over the next several meetings, Darlene will be discussing various landscape elements and will be asking the CTF to provide input on which features within the corridor should the landscape concept highlight, preferred plant and hardscape materials, and water harvesting techniques. Several CTF members provided the following thoughts base on Darlene's initial discussion.

Angela likes riprap; prefers more natural looking materials and plants but would like to see a range of color added to the palette

Barbara agreed with Angela, also likes the "boulder" rock look and wondered if vegetation could be put in the narrow part of the medians. Andy noted that smaller shrubs that do not impact site visibility can be planted in these medians as long as they are not narrower than 4 feet.

Judith would like to use dense shrubs to hide some of the undesirable views east side of Silverbell. Jim noted that this is an example of a potential conflict between corridor interest is to minimize vegetation between culverts to better protect wildlife vs. providing vegetation screening. Input from the CTF will be important on this issue.

Julie asked how they predict future trends in landscape appearance? Darlene's tendency is to try and match existing so that the landscape that is installed on Silverbell does not go out of style.
Brad asked if there is a limitation to tree size. He noted difficulty in seeing kids in median on the section of Silverbell south of Grant. Andy noted that the landscaping on that section of Silverbell is very dense and is not allowed by the City anymore. We need to adhere to sight visibility requirements and tree canopies cannot extend into the roadway more than 2 feet.
Darlene noted that mitigation of impacts to vegetation in the wash areas needs to primarily use plants that are existing in project area, although they can be supplemented by other drought tolerant plants on the approved list.
Gale would like shade trees along pathway. Darlene noted that desert trees don't require much maintenance and also beneficial to wildlife. This means more trees less shrubs.
Wain said that engineers usually use straight lines and slopes - can we try to randomize or vary landscape and elements in the shoulders. Jim indicated that the bottom the slopes could vary somewhat to eliminate the straight line. Darlene added that while most of the water harvesting will occur outside of the multiuse path, there may be some areas were the path can meander and allow some harvesting between curb and sidewalk
Angela – We should try to maintain consistency throughout the corridor
Julie likes the look of the wildflowers planted along the shoulders of Silverbell north of Ina.
Jim noted that the landscape discussion will continue at the May SRTF meeting.

6. Next Steps

The topics to be addressed at upcoming meetings were announced:

May – transit, environmental clearance, landscaping and water harvesting, wildlife crossing study, project costs

June – north section alignment and access

July – Jim suggested that the CTF take a summer recess. All agreed and as such no meeting will be scheduled.

7. Call to Audience

Julian Hadley, speaking on behalf of the elderly, is concerned about the budget crisis and safety. He thanked Darlene for her presentation. Budget - On the section of Silverbell from Ina to Cortaro, a paved center lane was used and is low cost to install and maintain. Safety - Currently, emergency vehicles drive along the shoulders of the road. He questioned how traffic is going to make way for emergency vehicles with median curbs and shoulder curbs in place.

8. Adjournment

Meeting adjourned at 7:50 p.m.