

Table 5 Scottsdale Airport Improvement Opportunities Internal Circulation		Screening and Evaluation	
Concept No.	Existing Conditions	Concept Description (Cost Estimate, if available)	Impacts
<p>Goals:</p> <ul style="list-style-type: none"> Relieve traffic congestion Optimize the mobility of people, goods, and information for the expected buildout of the City Maintain Scottsdale's high aesthetic values and environmental standards in the City's transportation system Emphasize live, work, and play land use relationships to optimize the use of citywide systems and reduce the strain on regional and local/neighborhood systems 	<p>STR-1 Airport Tunnel</p> <ul style="list-style-type: none"> The Scottsdale Airport runway inhibits roadway connectivity, and presents a barrier between north-south and east-west traffic. The Regional Transportation Plan includes \$64,475,000 (in 2006 dollars) for the construction of a tunnel. The City of Scottsdale would have to provide 30 percent matching funds, or \$19,342,500, to receive the regional funding, providing approximately \$84 million for tunnel construction. No studies have been completed for a north-south alignment that would connect Hayden Road on the south side of the Scottsdale Airport to Greenway-Hayden Loop to the north side of the Airport. <ul style="list-style-type: none"> Initial sketches of a possible tunnel alignment would require a tunnel thirty feet deep under the runway, with a fourteen-foot deck over it. 	<p>The City of Scottsdale has examined the potential to construct a tunnel (Figure 4) with two studies:</p> <p>A. The Airport Area: East/West Corridor Feasibility Study (October 16, 1991)</p> <ul style="list-style-type: none"> Concluded that none of the three east-west alternatives appeared to be cost effective given available resources. Recommended improvements to the existing transportation system to eliminate the volume/capacity deficiencies. <p>B. The Traffic and Feasibility Report for the Airport Tunnel Study (November 23, 1999)</p> <ul style="list-style-type: none"> Evaluated potential tunnel construction methods but did not address financial feasibility of the tunnel concept. Analyzed two east-west alignments that would connect Butherus Drive west of the Scottsdale Airport to Rainfree Drive east of the Airport. 	<p>Benefits</p> <ul style="list-style-type: none"> STR-1 (A and B) would improve circulation within the Airport. STR-1 (A and B) would provide connections to Phoenix. <p>Impacts</p> <ul style="list-style-type: none"> STR-1 (A) and (B) would incur high construction costs (the cost of the east-west tunnel is estimated at \$84,000,000 in 2006 dollars) STR-1 (A) and (B) would have high operating costs There may be Homeland Security issues with a tunnel that have become more critical since 9/11. STR-1 (A) and (B) would impact Airport operations during construction.
<p>STR-2 South End of Airport: Thunderbird Road/Rainfree Drive/Redfield Road modifications</p>	<ul style="list-style-type: none"> Thunderbird Road curves north to connect to Redfield just east of the Thunderbird/Scottsdale Road intersection. The section line alignment of Thunderbird Road is a residential or minor collector level street from 76th to 87th Street. The City of Scottsdale plans to realign 73rd Street to the east with a signal at Thunderbird Road as part of Capital Improvement Plan project S0317. This project is currently in design. The project does not address the drainage dips perpendicular to 73rd Street in several locations north of Thunderbird Road that slow traffic. The Master Plan also recommends revisions to the vertical alignment along 73rd Street to 	<p>A. Extend Thunderbird Road east to Loop 101.</p> <ul style="list-style-type: none"> Thunderbird Road would be constructed east to existing Northlight Boulevard (Figure 9). (\$6,000,000) Would rely on the construction of the Northlight Boulevard and Loop 101 HOV ramps to be effective. <p>B. Thunderbird/Rainfree Connection</p> <ul style="list-style-type: none"> Extend Thunderbird Road parallel to the Airport runway to connect into Rainfree Drive. (\$4,400,000) <p>C. Redfield Road: Realign 76th Street into 76th Place at Redfield.</p> <ul style="list-style-type: none"> Marked by an offset, signalized intersection. Could be accomplished by building a skewed intersection. 	<p>Concept STR-2 (A) would provide an additional east-west route south of the Airport, and would provide additional Airport/Airpark access from the east.</p> <ul style="list-style-type: none"> Concept STR-2 (A) is inconsistent with the area's character, as it would traverse residential neighborhoods, and is a community concern. With concept STR-2 (B), several businesses may need to be purchased for roadway right-of-way. Concept STR-2 (C) would require the acquisition of some parking.

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<p>STR-2 South end of Airport: Thunderbird Road/Raintree Drive Redfield Road modifications (continued)</p>			

