



TEXAS DEPARTMENT OF TRANSPORTATION

ALTERNATIVES ANALYSIS MATRIX



SPUR 399 EXTENSION - US 75 TO US 380 CSJs 0364-04-051, 0047-05-058, 0047-10-002

★ SCREENING/EVALUATION CATEGORY	METRIC	PURPLE ALTERNATIVE West of the airport	ORANGE ALTERNATIVE East of the airport	NO-BUILD ALTERNATIVE	KEY TAKEAWAYS
Engineering	New ROW Required Estimated ROW and Displacement Cost in Millions (M). Costs are derived from Collin County Appraisal District values, increased to \$2.50/square foot minimum and a 200% contingency applied to the total	118 acres \$105M	243 acres \$86M	No new ROW required	The Orange Alternative would require more than twice the amount of new ROW needed for construction compared to what the Purple Alternative would require for construction. The ROW and displacement costs are higher for the Purple Alternative because the land that would have to be purchased is more developed and therefore more expensive than the land of most of the Orange Alternative. The Purple Alternative includes existing ROW occupied by Airport Drive that is owned by the City of McKinney.
	Improve Airport Access While Meeting Airport ROW and Airspace Requirements	The Purple Alternative offers one main point of access to the Airport from the proposed freeway frontage roads on the west side of the Airport. The Purple Alternative does not provide access to the east side of the Airport and the area proposed for airfield and terminal expansion by the City of McKinney.	The Orange Alternative offers two main points of access - one would maintain the existing access on Airport Drive on the west side of the Airport and one from the proposed freeway frontage roads on the east side of the Airport.	Access maintained to the Airport	Because the McKinney National Airport is now planning to construct their runway expansion on the north side of the Airport instead of the south side, TxDOT was able to shift both alternatives 2,000 feet north closer to the Airport. Airspace considerations, runway safety areas, aircraft approach, and departure areas would not be directly affected by either alternative.
Cumulative Effects	Cumulative Effects	TBD	TBD	N/A	Cumulative effects are how the environment in the study area could be affected by the Spur 399 Ext. project, together with other current and future reasonably foreseeable local and regional transportation projects, and other non-roadway projects. Assessment of cumulative impacts is still under evaluation as it is typically conducted closer to the conclusion of the study process. Examples of transportation projects that may be considered are the other US 380 improvement projects, SH 5 improvements and expansion, and FM 546 realignment and expansion. Other non-roadway projects being considered are future utility/waterline projects, McKinney National Airport expansion, and Encore Wire's facility expansion.
Cost	Estimated Right-of-Way Cost + Estimated Cost to Relocate and Accommodate Planned Utilities + Estimated Design and Construction Cost = Total Estimated Project Cost	\$105M + \$191M + \$446M = \$742M TOTAL	\$86M + \$15M + \$654M = \$755M TOTAL	Although no money would be spent building a new road, long-term costs would occur due to maintenance of the existing roadway system, increased congestion and safety considerations along Airport Drive as traffic increases, and travel times and delay increases as traffic continues to grow along US 380, SH 5, and US 75.	Construction costs are greater for the Orange Alternative because it is longer in length than the Purple Alternative. Because it is more developed, the ROW that would have to be acquired to construct the Purple Alternative would be more expensive than the ROW needed for the Orange Alternative. The total estimated project cost for the Orange Alternative is \$13M more than the Purple Alternative.