IMPACTS	NO ACTION ALTERNATIVE	WESTERN SECTION ALTERNATIVES			EASTERN SECTION ALTERNATIVES
		W101 ALTERNATIVE AND OPTIONS	W71	W55	E1 ALTERNATIVE
Existing Land Use					
Land Use Conversion	No immediate conversion of existing land use to transportation use would occur. Due to the planned development in the Study Area, various land uses would eventually be permanently converted to urban uses.	Depending on the proposed option, an estimated 1,531 acres to 1,621 acres of various land uses would be converted to the transportation corridor.	An estimated 1,335 acres of various land uses would be converted to the transportation corridor.	An estimated 999 acres of various land uses would be converted to the transportation corridor.	An estimated 853 acres of various land uses would be converted to the transportation corridor.
Agriculture	No immediate conversion of agriculture uses to transportation uses would occur. Due to the planned development in the Study Area, agricultural uses would eventually be permanently converted to urban uses.	W101WPR/FR – An estimated 1,107/1,094 acres of agricultural use would be converted to the transportation corridor. W101CPR/FR – An estimated 1,129/1,116 acres of agricultural use would be converted to the transportation corridor. W101EPR/FR – An estimated 1,024/1,011 acres of agricultural use would be converted to the transportation corridor.	An estimated 689 acres of agricultural use would be converted to the transportation corridor.	An estimated 569 acres of agricultural use would be converted to the transportation corridor.	An estimated 169 acres of agricultural use would be converted to the transportation corridor.
Residential	No immediate conversion of existing residential uses to transportation uses would occur, other than what could occur from other planned transportation projects. Due to the planned development in the Study Area, it is likely that residential uses would eventually be permanently converted to transportation-related urban uses.	W101WPR/FR – An estimated 91 acres of residential use would be converted to the transportation corridor. W101CPR/FR – An estimated 63/62 acres of residential use would be converted to the transportation corridor. W101EPR/FR – An estimated 82/81 acres of residential use would be converted to the transportation corridor.	An estimated 168 acres of residential use would be converted to the transportation corridor.	An estimated 67 acres of residential use would be converted to the transportation corridor.	An estimated 112 acres of residential use would be converted to the transportation corridor.
Commercial/ Industrial	No immediate conversion of existing commercial/industrial uses to transportation uses would occur. Due to the planned development in the Study Area, commercial/ industrial uses would eventually be permanently converted to urban uses.	W101WPR/FR – An estimated 111/101 acres of commercial/industrial use would be converted to the transportation corridor. W101CPR/FR – An estimated 92/82 acres of commercial/industrial use would be converted to the transportation corridor. W101EPR/FR – An estimated 95/85 acres of commercial/industrial use would be converted to the transportation corridor.	An estimated 151 acres of commercial/industrial use would be converted to the transportation corridor.	An estimated 194 acres of commercial/ industrial use would be converted to the transportation corridor.	An estimated 10 acres of commercial/industrial use would be converted to the transportation corridor.

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IMPACTS	NO ACTION ALTERNATIVE	WESTERN SECTION ALTERNATIVES			EASTERN SECTION ALTERNATIVES
		W101 ALTERNATIVE AND OPTIONS	W71	W55	E1 ALTERNATIVE
Open Space/ Undeveloped	No immediate conversion of existing open space/ undeveloped uses to transportation uses would occur, other than what could occur from other planned transportation projects.	W101WPR/FR – An estimated 216/221 acres of open space/undeveloped use would be converted to the transportation corridor. W101CPR/FR – An estimated 301/306 acres of open space/undeveloped use would be converted to the transportation corridor. W101EPR/FR – An estimated 348/353 acres of open space/undeveloped use would be converted to the transportation corridor.	An estimated 324 acres of open space/ undeveloped use would be converted to the transportation corridor.	An estimated 164 acres of open space/ undeveloped use would be converted to the transportation corridor.	An estimated 549 acres of open space/undeveloped use would be converted to the transportation corridor.
Public/Quasi Public	No immediate conversion of existing public/quasi public uses to transportation uses would occur. Due to the planned development in the Study Area, public/quasi public uses would eventually be permanently converted to urban uses.	W101WPR/FR – An estimated 47/45 acres of public/quasi public use would be converted to the transportation corridor. W101CPR/FR – An estimated 36/34 acres of public/quasi public use would be converted to the transportation corridor. W101EPR/FR – An estimated 3/1 acres of public/ quasi public use would be converted to the transportation corridor.	An estimated 3 acres of public/quasi public use would be converted to the transportation corridor.	An estimated 5 acres of public/quasi public use would be converted to the transportation corridor.	An estimated 13 acres of public/quasi public use would be converted to the transportation corridor.
Social Conditions					
Consistency with Local and Regional Plans	The alternative would not be consistent with the intent of the local and regional plans to provide a freeway in the Study Area and to promote growth along the corridor.	The W101 and W71 Alternatives would be consistent with the intent of the local and regional plans to provide a freeway in the Study Area and to promote growth along the corridor, but would be inconsistent with the locations generally identified in those plans for the South Mountain Freeway Alignment. Both alignments would require an amendment to the Maricopa Association of Governments (MAG) Regional Transportation Plan (RTP).		The W55 Alternative would be consistent with the intent of the local and regional plans to provide a freeway in the Study Area, and to promote growth along the corridor and would be consistent with the locations generally identified in those plans for the South Mountain Freeway Alignment.	The E1 Alternative would be consistent with the intent of the local and regional plans to provide a freeway in the Study Area, and to promote growth along the corridor and would be consistent with the locations generally identified in those plans for the South Mountain Freeway Alignment.
Community Character and Cohesion	The No Action Alternative would have no immediate substantial impacts on community character and cohesion. Continued development within the Study Area would affect community character and cohesion.	The W101 Alternative would introduce visual and noise intrusions to rural and industrial areas within western Estrella Village and Tolleson. The central and western options would interrupt the cohesion of both dairy operations and agricultural homes (farmsteads) along Broadway Road between 83rd Avenue and 99th Avenue. Interchanges for all of the options would help to maintain cohesion in the Study Area.	The alternatives would introduce visual and noise intrusions to existing neighborhoods within Laveen and Estrella villages. The freeway would bisect developed properties and disrupt cohesion and existing internal site circulation.	The alternatives would introduce visual and noise intrusions to existing neighborhoods within Laveen and Estrella villages. The freeway would bisect developed properties and disrupt cohesion and existing internal site circulation.	The alternative would introduce additional noise intrusions along the southern edge of the Ahwatukee Foothills Village.

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IMPACTS	NO ACTION ALTERNATIVE	WESTERN SECTION ALTERNATIVES			EASTERN SECTION ALTERNATIVES
		W101 ALTERNATIVE AND OPTIONS	W71	W55	E1 ALTERNATIVE
Public Services and Emergency Response	This alternative would result in increased congestion on the local street network, which would lead to increased travel times and reduced efficiency in the movement of people, goods and emergency response within and across the Study Area.	The action alternatives would improve access to and from businesses, residences, public facilities and employment centers located within and across the Study Area. During construction, detours could have an affect on emergency response times. Once the proposed action is under operation, minimal disruption of emergency response service is anticipated as circulation on the Study Area's major arterial roads will be maintained through grade separations and planned interchanges. The long-term effect would be enhanced travel and response times as a result of improved access to the Study Area by providing alternative access routes to the major arterial roads.		The action alternatives would improve access to and from businesses, residences, public facilities and employment centers located within and across the Study Area. During construction, detours could have an affect on emergency response times. Once the proposed action is under operation, minimal disruption of emergency response service is anticipated as circulation on the Study Area's major arterial roads will be maintained through grade separations and planned interchanges. The long-term effect would be enhanced travel and response times as a result of improved access to the Study Area by providing alternative access routes to the major arterial roads.	The E1 Alternative would improve access to and from businesses, residences, public facilities and employment centers located within and across the Study Area. During construction, detours could have an affect on emergency response times. Once the proposed action is under operation, minimal disruption of emergency response service is anticipated as circulation on the Study Area's major arterial roads will be maintained through grade separations and planned interchanges. The long-term effect would be enhanced travel and response times as a result of improved access to the Study Area by providing alternative access routes to the major arterial roads.
Economics					
Residential Displacements (platted as of Fall 2005)	No residential properties would be displaced.	W101WPR/FR – An estimated 234 residential properties would be displaced. W101CPR/FR – An estimated 374/373 residential properties would be displaced. W101EPR/FR – An estimated 529 residential properties would be displaced.	An estimated 775 residential properties would be displaced.	An estimated 114 residential properties would be displaced.	An estimated 317 residential properties would be displaced.
Business Displacements	No business properties would be displaced.	W101WPR/FR – An estimated 4/3 business properties would be displaced. W101CPR/FR – An estimated 6 business properties would be displaced. W101EPR/FR – An estimated 5 business properties would be displaced.	An estimated 10 business properties would be displaced.	An estimated 69 business properties would be displaced.	No business properties would be displaced.
Displaced Employees	No employees would be displaced.	W101WPR/FR – An estimated 72/69 employees would be displaced. W101CPR/FR –An estimated 1,251/1,272 employees would be displaced. W101EPR/FR –An estimated 1,246/1,267 employees would be displaced.	An estimated 632 employees would be displaced.	An estimated 932 employees would be displaced.	No employees would be displaced.
Community Facility Displacements	No community facilities would be displaced.	W101WPR/FR – Approximately one community facility would be displaced. W101CPR/FR – Approximately one community facility would be displaced. W101EPR/FR – No community facilities would be displaced.	Approximately 1 community facility would be displaced.	No community facilities would be displaced.	Approximately 1 community facility would be displaced.

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		W101 ALTERNATIVE AND OPTIONS	W71	W55	E1 ALTERNATIVE
Existing Taxable Land Base Conversion	No conversion of tax revenue uses to the transportation corridor, a non-taxable use, would occur.	W101WPR/FR – An estimated 1,537/1,522 acres within the cities of Phoenix, Tolleson and Avondale would be converted from tax revenue uses to the transportation corridor, a non-taxable use. W101CPR/FR – An estimated 1,596/1,585 acres within the cities of Phoenix, Tolleson and Avondale would be converted from tax revenue uses to the transportation corridor, a non-taxable use. W101EPR/FR – An estimated 1,606/1,594 acres within the cities of Phoenix, Tolleson and Avondale would be converted from tax revenue uses to the transportation corridor, a non-taxable use.	An estimated 1,298 acres within the city of Phoenix would be converted from tax revenue uses to the transportation corridor, a non-taxable use.	An estimated 967 acres within the city of Phoenix would be converted from tax revenue uses to the transportation corridor, a non-taxable use.	An estimated 722 acres within the city of Phoenix would be converted from tax revenue uses to the transportation corridor, a non-taxable use.
Tax Revenue (Property/Sales Tax and General Fund)	No immediate reduction in property and sales tax revenue would occur with this alternative. Continued planned development within the Study Area and future transportation projects would affect property/sales tax and general fund revenue in the area.	Property/sales tax and general fund revenues would be reduced in the cities of Phoenix, Avondale, and Tolleson W101WPR Phoenix: Reduced by $1,228,800 (0.26% property and sales tax/0.13% general fund) Avondale: Reduced by $72,400 (0.20%/0.18%) Tolleson: Reduced by $894,900(15%/11%) W101WFR Phoenix: Reduced by $1,227,000 (0.26%/0.13%) Avondale: Reduced by $104,900 (0.29%/0.27%) Tolleson: Reduced by $826,400 (14%/10%) W101CPR Phoenix: Reduced by $1,207,100 (0.25%/0.13%) Avondale: Reduced by $72,400 (0.20%/0.18%) Tolleson: Reduced by $975,000 (16%/12%) W101CFR Phoenix: Reduced by $1,206,400 (0.25%/0.13%) Avondale: Reduced by $104,900 (0.29%/0.27%0 Tolleson: Reduced by $907,000 (15%/11%) W101EPR Phoenix: Reduced by $251,600 (0.05%/0.03%) Avondale: Reduced by $72,400 (0.20%/0.18%) Tolleson: Reduced by $975,000 (16%/12%) W101EFR Phoenix: Reduced by $249,900 (0.05%/0.03%) Avondale: Reduced by $104,900 (0.29%/0.27%) Tolleson: Reduced by $907,000 (15%/11%)	Property/sales tax and general fund revenues would be reduced in the City of Phoenix by $2,093,600 (0.44% property and sales tax/0.23% general fund) and in Tolleson by $230,600 (4%/3%). The alternative would have no affect on Avondale property/sales tax and general fund revenues.	Property/sales tax and general fund revenues would be reduced in the City of Phoenix by $2,350,500 (0.49% property and sales tax /0.25% general fund) and in Tolleson by $216,800 (4%/3%). The alternative would have no affect on Avondale property/sales tax and general fund revenues.	Property/sales tax and general fund revenues would be reduced in the City of Phoenix by $2,093,600 (0.44% property sales tax/0.22% general fund)

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		W101 ALTERNATIVE AND OPTIONS	W71	W55	E1 ALTERNATIVE
Economic Travel Time Savings	No travel time savings would be experienced under the No Action Alternative.	$400 million/year post construction		$400 million/year post construction	$400 million/year post construction
Environmental Justice					
Minority	Impacts or disproportionately high adverse effects on minority, low income, female head-of-household, or elderly populations would not occur.	W101WPR/FR – Impacts to minority populations would occur within 62% of the census blocks with displacements. W101CPR/FR – Impacts to minority populations would occur within 36% of the census blocks with displacements. W101EPR/FR – Impacts to minority populations would occur within 59% of the census blocks with displacements. Impacts would not be disproportionately high after comparing the impacts on and benefits to all populations in the Study Area.	This alternative would result in impacts to minority populations within 62% of the census blocks where displacements would occur. Impacts would not be disproportionately high after comparing the impacts on and benefits to all populations in the Study Area.	This alternative would result in impacts to minority populations within 50% of the census blocks where displacements would occur. Impacts would not be disproportionately high after comparing the impacts on and benefits to all populations in the Study Area.	This alternative would result in impacts to minority populations within 11% of the census blocks where displacements would occur. Impacts would not be disproportionately high after comparing the impacts on and benefits to all populations in the Study Area.
Low Income		This alternative would not disproportionately affect low-income populations.	This alternative would result in impacts to low-income populations within 40% of the census blocks where displacements would occur. Impacts would not be disproportionately high after comparing the impacts on and benefits to all populations in the Study Area.	This alternative would result in impacts to low income populations within 57% of the census blocks where displacements would occur. Impacts would not be disproportionately high after comparing the impacts on and benefits to all populations in the Study Area.	This alternative would not disproportionately affect low-income populations.
Female Head-of-Household		This alternative would not disproportionately affect female head-of-household populations.	This alternative would result in impacts to female head-of-household populations within 30% of the census blocks where displacements would occur. Impacts would not be disproportionately high after comparing the impacts on and benefits to all populations in the Study Area.	This alternative would result in impacts to female head-of-household populations within 29% of the census blocks where displacements would occur. Impacts would not be disproportionately high after comparing the impacts on and benefits to all populations in the Study Area.	This alternative would not disproportionately affect female head-of-household populations.
Elderly		None of the action alternatives would disproportionately displace elderly populations.		None of the action alternatives would disproportionately displace elderly populations.	None of the action alternatives would disproportionately displace elderly populations.
Air Quality					
Carbon Monoxide (CO) 8-Hour and 1-Hour Standards	Congestion on the local arterial network and regional freeway system would increase; and would lead to increased travel times and increased carbon monoxide emissions.	It is anticipated that 8-hour and 1-hour carbon monoxide concentrations would not exceed National Ambient Air Quality Standards (NAAQS) in 2030.		It is anticipated that 8-hour and 1-hour carbon monoxide concentrations would not exceed National Ambient Air Quality Standards (NAAQS) in 2030.	It is anticipated that 8-hour and 1-hour carbon monoxide concentrations would not exceed National Ambient Air Quality Standards (NAAQS) in 2030.

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		W101 ALTERNATIVE AND OPTIONS	W71	W55	E1 ALTERNATIVE
Particulate Matter 10 microns (PM10) and 2.5 microns (PM2.5)	Increased congestion on the transportation network would lead to increased travel times and increased PM10 and PM2.5 emissions.	The action alternatives would result in short-term impacts on PM_{10} and $PM_{2.5}$ during construction. The action alternatives are anticipated to reduce congestion and travel times, resulting in reduced PM_{10} and $PM_{2.5}$ emissions.		The action alternatives would result in short-term impacts on PM_{10} and $PM_{2.5}$ during construction. The action alternatives are anticipated to reduce congestion and travel times, resulting in reduced PM_{10} and $PM_{2.5}$ emissions.	The action alternatives would result in short-term impacts on PM_{10} and $PM_{2.5}$ during construction. The action alternatives are anticipated to reduce congestion and travel times, resulting in reduced PM_{10} and $PM_{2.5}$ emissions.
Transportation Conformity	Not consistent with the RTP and Transportation Improvement Plan (TIP).	The action alternatives are consistent with the RTP and TIP because they would provide a transportation facility that is needed to improve traffic in the Phoenix metropolitan region; however, these alternatives differ from the transportation facility proposed in the RTP and TIP. The W55 Alternative includes an increased number of lanes compared to that in the RTP and TIP, while the W71 Alternative and W101 Alternative and options include alignments that differ from that in the RTP and TIP.		The action alternatives are consistent with the RTP and TIP because they would provide a transportation facility that is needed to improve traffic in the Phoenix metropolitan region; however, these alternatives differ from the transportation facility proposed in the RTP and TIP. The W55 Alternative includes an increased number of lanes compared to that in the RTP and TIP, while the W71 Alternative and W101 Alternative and options include alignments that differ from that in the RTP and TIP.	The action alternatives are consistent with the RTP and TIP because they would provide a transportation facility that is needed to improve traffic in the Phoenix metropolitan region; however, these alternatives differ from the transportation facility proposed in the RTP and TIP. The E1 Alternative includes an increased number of lanes compared to that in the RTP and TIP.
Mobile Source Air Toxics (MSAT)	For all alternatives, increased traffic volume in the Study Area has the potential to result in elevated, but unquantifiable differences in Study Area MSAT levels. The action alternatives are anticipated to reduce congestion and improve region-wide traffic, which would provide some benefits for reducing MSAT emissions. Additionally, overall MSAT levels would decline from existing levels due to compliance with strategies identified by EPA's national control programs. The study team is in the process of examining study methodology.	For all alternatives, increased traffic volume in the Study Area has the potential to result in elevated, but unquantifiable differences in Study Area MSAT levels. The action alternatives are anticipated to reduce congestion and improve region-wide traffic, which would provide some benefits for reducing MSAT emissions. Additionally, overall MSAT levels would decline from existing levels due to compliance with strategies identified by EPA's national control programs. The study team is in the process of examining study methodology.		For all alternatives, increased traffic volume in the Study Area has the potential to result in elevated, but unquantifiable differences in Study Area MSAT levels. The action alternatives are anticipated to reduce congestion and improve region-wide traffic, which would provide some benefits for reducing MSAT emissions. Additionally, overall MSAT levels would decline from existing levels due to compliance with strategies identified by EPA's national control programs. The study team is in the process of examining study methodology.	For all alternatives, increased traffic volume in the Study Area has the potential to result in elevated, but unquantifiable differences in Study Area MSAT levels. The action alternatives are anticipated to reduce congestion and improve region-wide traffic, which would provide some benefits for reducing MSAT emissions. Additionally, overall MSAT levels would decline from existing levels due to compliance with strategies identified by EPA's national control programs. The study team is in the process of examining study methodology.
Noise					
Traffic Noise	Study noise receptors located adjacent to existing local arterials would be affected by noise generated by local traffic. The No Action Alternative would not preclude future planned transportation projects from occurring in the Study Area, nor any future proposals to construct a project similar to the proposed action.	W101WPR/FR – The projected noise levels at 25 study noise receptors would require mitigation, based on preliminary noise analyses. W101CPR/FR – The projected noise levels at 12 study noise receptors would require mitigation, based on preliminary noise analyses. W101EPR/FR – The projected noise levels at 22 study noise receptors would require mitigation, based on preliminary noise analyses.	The projected noise levels at 27 study noise receptors would require mitigation.	The projected noise levels at 19 study noise receptors would require mitigation.	The projected noise levels at 36 study noise receptors would require mitigation.

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Construction	This alternative would have no construction noise impacts. Future planned development of transportation facilities in the Study Area would result in potential construction noise impacts.	Noise impacts may be experienced during the construction periods of any part of the proposed transportation facility.		Noise impacts may be experienced during the construction periods of any part of the proposed transportation facility.	Noise impacts may be experienced during the construction periods of any part of the proposed transportation facility.
Water Resources					
Surface Water	No project related impacts. However, urban growth may continue and traffic volumes may increase on surface streets. As a result, pollutants may continue to be generated by increased traffic. Storm events may cause erosion or exposed soil surfaces, and subsequent runoff of sediment laden water.	Any contaminants on the road surface would be transported to existing adjacent surface waters due to initial runoff generated during a storm event.		Any contaminants on the road surface would be transported to existing adjacent surface waters due to initial runoff generated during a storm event.	Any contaminants on the road surface would be transported to existing adjacent surface waters due to initial runoff generated during a storm event.
Groundwater	No impact on groundwater wells from the alternative.	W101WPR/FR – An estimated 54/52 wells would be potentially affected. W101CPR/FR – An estimated 58/56 wells would be potentially affected. W101EPR/FR – An estimated 55/53 wells would be potentially affected.	An estimated 32 wells would be potentially affected.	An estimated 32 wells would be potentially affected.	An estimated 29 wells would be potentially affected.
Floodplains					
	The No Action Alternative would have no impact on floodplains. Any future projects to provide access across the Salt River would involve crossing floodplains in several locations at major arterial streets.	W101WPR/FR – An estimated 53.3 acres of encroachment impacts are anticipated (20.3 acres of Salt River and 33 acres of Union Pacific Railroad). W101CPR/FR – An estimated 52.3 acres of encroachment impacts are anticipated (20.3 acres of Salt River and 32 acres of Union Pacific Railroad). W101EPR/FR – An estimated 52.3 acres of encroachment impacts are anticipated (20.3 acres of Salt River and 32 acres of Union Pacific Railroad).	An estimated 104.3 acres of encroachment impacts are anticipated (82.7 acres of Salt River and 21.6 acres of Union Pacific Railroad).	An estimated 47.1 acres of encroachment impacts are anticipated (38.7 acres of Salt River and 8.4 acres of Union Pacific Railroad).	No acres of encroachment impacts are anticipated.
Jurisdictional Waters					
	Jurisdictional waters of the United States would not be affected.	Approximately 11.38 acres of jurisdictional waters would be temporarily affected and .05 acres of jurisdictional waters would be permanently affected.	Approximately 10.87 acres of jurisdictional waters would be temporarily affected and .06 acres of jurisdictional waters would be permanently affected.	Approximately 17.08 acres of jurisdictional waters would be temporarily affected and .10 acres of jurisdictional waters would be permanently affected.	Approximately 3.5 acres of jurisdictional waters would be permanently affected.

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		W101 ALTERNATIVE AND OPTIONS	W71	W55	E1 ALTERNATIVE
Geology					
	The alternatives would not affect geology.	The alternatives would not affect geology.		The alternatives would not affect geology.	The E1 Alternative would require rock excavation and fairly substantial "cuts" through three ridge lines. Existing rock slopes could be altered by excavating slopes within the rock.
Biological Resources					
Plant and Habitat	The alternative would have no direct effects on plant communities or wildlife resources.	All action alternatives would result in the conversion of cover, nesting areas, and food resources for wildlife habitat provided by the natural plant communities found in the study area. Much of the land through which the proposed action would pass has already been converted to urban, agricultural, and transportation uses (see Secondary and Cumulative Impacts section in this table).		All action alternatives would result in the conversion of cover, nesting areas, and food resources for wildlife habitat provided by the natural plant communities found in the study area. Much of the land through which the proposed action would pass has already been converted to urban, agricultural, and transportation uses (see Secondary and Cumulative Impacts section in this table).	All action alternatives would result in the conversion of cover, nesting areas, and food resources for wildlife habitat provided by the natural plant communities found in the study area. Much of the land through which the proposed action would pass has already been converted to urban, agricultural, and transportation uses (see Secondary and Cumulative Impacts section in this table).
Wildlife of Special Concern	The alternatives would not affect wildlife of special concern.	The alternatives would not affect wildlife of special concern.		The alternatives would not affect wildlife of special concern.	The alternatives would not affect wildlife of special concern.
Threatened and Endangered Species	The alternatives would not affect threatened and endangered species.	The alternatives would not affect threatened and endangered species.		The alternatives would not affect threatened and endangered species.	The alternatives would not affect threatened and endangered species.
Habitat Connectivity	The No Action Alternative would not affect habitat connectivity within the Study Area. However, continued development in the Study Area would not preclude potential impacts on habitat connectivity.	The action alternatives would form a barrier to wildlife movement within the mixed plant community, whereas some habitat connectivity would be maintained at proposed bridge and culvert locations.		The action alternatives would form a barrier to wildlife movement within the mixed plant community, whereas some habitat connectivity would be maintained at proposed bridge and culvert locations.	The action alternatives would form a barrier to wildlife movement within the mixed plant community, whereas some habitat connectivity would be maintained at proposed bridge and culvert locations.
Cultural Resources					
Historic Resources	No historic sites eligible for the National Register of Historic Places (NRHP) would be affected by the alternative. Planned development within the Study Area would potentially impact existing sites, which may or may not be avoided and would need to go through proper coordination.	W101WPR/FR – 3 NRHP-eligible historic sites would be impacted and require mitigation. W101CPR/FR – 2 NRHP-eligible historic sites would be impacted and require mitigation. W101EPR/FR – 2 NRHP-eligible sites would be impacted and require mitigation.	The alternatives would intersect 2 linear historic sites. Depending on the design, the sites may or may not be avoided. If avoidance is not possible, then the negative impact would require mitigation.	The alternatives would intersect 2 linear historic sites. Depending on the design, the sites may or may not be avoided. If avoidance is not possible, then the negative impact would require mitigation.	No historic sites would be impacted.

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		W101 ALTERNATIVE AND OPTIONS	W71	W55	E1 ALTERNATIVE
Prehistoric Resources	No prehistoric sites eligible for the NRHP would be affected by the alternative. Planned development within the Study Area would potentially impact existing sites, which may or may not be avoided. If avoidance is not possible, then any negative impact to existing sites would require mitigation.	The Alternative would impact 2 prehistoric sites that are eligible for the NRHP and would require mitigation.	The alternative would impact 4 prehistoric sites that are eligible for the NRHP and would require mitigation.	The alternative would impact 6 prehistoric sites that are eligible for the NRHP and would require mitigation.	The alternative would impact 6 prehistoric sites that are eligible for the NRHP and would require mitigation.
Hazardous Materials					
	This alternative would not affect existing hazardous materials-impacted sites.	Within the corridor, 14 sites were identified including 11 low risk, 2 medium risk, and 1 high risk. Of the 14 sites, 3 are recommended for further investigation as the project progresses.	Within the corridor, 15 sites were identified including 11 low risk, 2 medium risk, and 2 high risk sites. Of the 15 sites, 3 are recommended for further investigation as the project progresses.	Within the corridor, 29 hazardous materials sites were identified including 19 low risk, 7 medium risk, and 3 high risk sites. Of the 29 sites, 9 are recommended for further investigation as the project progresses.	Within the corridor, 1 hazardous material site was identified. This site is low risk and is not recommended for further investigation as the project progresses.
Visual Resources					
	No immediate impacts on the visual quality of the corridor would occur. Over time, visual characteristics of rural, agricultural and open space areas would conform to visual aspects associated with urban uses.	The alternatives would result in visual impacts on views from the residential and rural uses within the alternative corridor including construction impacts, new traffic interchanges, and visibility of the new facility. These impacts would not change the low to moderate visual quality of views along the W101 and W55 Alternative corridors. The W71 Alternative corridor has a higher level of visual sensitivity, due to more planned residential development, than the other action alternatives, which would result in a slightly higher magnitude of visual impacts.		The alternatives would result in visual impacts on views from the residential and rural uses within the alternative corridor including construction impacts, new traffic interchanges, and visibility of the new facility. These impacts would not change the low to moderate visual quality of views along the W101 and W55 Alternative corridors. The W71 Alternative corridor has a higher level of visual sensitivity, due to more planned residential development, than the other action alternatives, which would result in a slightly higher magnitude of visual impacts.	The alternative would result in visual impacts on views from the residential uses within the alternative corridor including construction impacts, new traffic interchanges, and visibility of the new facility.
Energy					
	Operation on I-10 would result in high levels of congestion and energy consumption (fuel use).	The alternatives would not result in adverse impacts on energy consumption. Improving facility operations would result in improved fuel economy.		The alternatives would not result in adverse impacts on energy consumption. Improving facility operations would result in improved fuel economy.	The alternatives would not result in adverse impacts on energy consumption. Improving facility operations would result in improved fuel economy.

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IMPACTS	NO ACTION ALTERNATIVE	WESTERN SECTION ALTERNATIVES			EASTERN SECTION ALTERNATIVES
		W101 ALTERNATIVE AND OPTIONS	W71	W55	E1 ALTERNATIVE
Prime and Unique Farmlands					
	The alternative would have no immediate impact on prime and unique farmlands. Due to the continued planned growth in the Study Area, prime and unique farmland in the Study Area would be permanently lost to urban uses.	W101WPR/FR – An estimated 1103 acres of prime and unique farmland would be converted to the transportation corridor. W101CPR/FR – An estimated 1132/1133 acres of prime and unique farmland would be converted to the transportation corridor. W101EPR/FR – An estimated 1039 acres of prime and unique farmland would be converted to the transportation corridor.	An estimated 963 acres of prime and unique farmland would be converted to roadway-related use.	An estimated 581 acres of prime and unique farmland would be converted from agriculture to roadway-related use.	An estimated 156 acres of prime and unique farmland would be converted from agriculture to roadway-related use.
Section 4(f)					
	None of the western section alternatives would result in the use of resource afforded protection under Section 4(f) of the Department of Transportation Act.	None of the western section alternatives would result in the use of resource afforded protection under Section 4(f) of the Department of Transportation Act.		None of the western section alternatives would result in the use of resource afforded protection under Section 4(f) of the Department of Transportation Act.	The alternative would result in the acquisition of approximately 32 acres of the 16,000-acre Phoenix SMPP. This is approximately 0.2 percent.
Utilities					
	The No Action Alternative would have no impact on utilities.	The alternatives would impact various utilities. Relocation of the gas, power, sewer and water utilities and closure of existing wells would be required. Structures constructed over the phone lines, railroad tracks and the irrigation canal crossings would avoid impacts on these utilities.		The alternatives would impact various utilities. Relocation of the gas, power, sewer and water utilities and closure of existing wells would be required. Structures constructed over the phone lines, railroad tracks and the irrigation canal crossings would avoid impacts on these utilities.	The alternatives would impact various utilities. Relocation of the gas, power, sewer and water utilities would be required.
Traffic					
Operational Performance of South Mountain Freeway	Not applicable.	1 segment operates at LOS E/F for less than 1 hour during the PM commute. Otherwise, South Mountain Freeway operates at LOS D or better.	1 segment operates at LOS E/F for less than 1 hour during the PM commute. Otherwise, South Mountain Freeway operates at LOS D or better.	2 segments operate at LOS E/F for less than 1 hour during the PM commute. Otherwise, South Mountain Freeway operates at LOS D or better.	2 segments operate at LOS E/F for less than 1 hour during the PM commute. Otherwise, South Mountain Freeway operates at LOS D or better.
2030 AM Operational Analysis of I-10 (Delay)	The No Action Alternative would result in a delay of 214 seconds per vehicle.	The W101 Alternative and options would result in a delay of 106 seconds per vehicle.	The W71 Alternative would result in a delay of 180 seconds per vehicle.	The W55 Alternative would result in a delay of 228 seconds per vehicle.	N/A

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IMPACTS	NO ACTION ALTERNATIVE	WESTERN SECTION ALTERNATIVES			EASTERN SECTION ALTERNATIVES
		W101 ALTERNATIVE AND OPTIONS	W71	W55	E1 ALTERNATIVE
2030 PM Operational Analysis of I-10 (Delay)	The No Action Alternative would result in a delay of 799 seconds per vehicle.	The W101 Alternative and options would result in a delay of 380 seconds per vehicle.	The W71 Alternative would result in a delay of 535 seconds per vehicle.	The W55 Alternative would result in a delay of 474 seconds per vehicle.	N/A
2030 AM Operational Analysis of I-10 (Travel Time)	The No Action Alternative would result in a travel time of 52.1 minutes.	The W101 Alternative and options would result in a travel time of 44.3 minutes.	The W71 Alternative would result in a travel time of 51.2 minutes.	The W55 Alternative would result in a travel time of 54.8 minutes.	N/A
2030 PM Operational Analysis of I-10 (Travel Time)	The No Action Alternative would result in a travel time of 109.7 minutes.	The W101 Alternative and options would result in a travel time of 71.5 minutes.	The W71 Alternative would result in a travel time of 81.6 minutes.	The W55 Alternative would result in a travel time for the best scenario of 71.2 minutes.	N/A
Local Access	Not applicable.	All existing access remains in place with the exception of the Loop 101 ramps to/from McDowell Road and the 99th Avenue to eastbound I-10. The Loop 101/McDowell Road ramps would be removed and the movement not replaced. The 99th Avenue eastbound movement would access I-10 via an access road on the south side of I-10, going through the 91st Avenue intersection.	At 59th Avenue, the westbound on ramp to I-10 and the eastbound off ramp from I-10 will be eliminated. At 83rd Avenue the eastbound on ramp to I-10 and the westbound off ramp from I-10 will be eliminated. All movements can be made through use of the adjacent interchange and access roads on the north and south sides of I-10.	At 43rd Avenue, the westbound on ramp to I-10 and the eastbound off ramp from I-10 will be eliminated. At 67th Avenue the eastbound on ramp to I-10 and the westbound off ramp from I-10 will be eliminated. All movements can be made through use of the adjacent interchange and access roads on the north and south sides of I-10.	Based on coordination with the City of Phoenix, the service traffic interchanges at 32nd Street and 27th Avenue were removed.
Construction					
	No construction impacts from the alternative would occur.	Construction activities associated with the alternative would create temporary negative effects on air quality, noise, water resources, residential and business access, pedestrian and vehicular traffic, and utilities.		Construction activities associated with the alternative would create temporary negative effects on air quality, noise, water resources, residential and business access, pedestrian and vehicular traffic, and utilities.	Construction activities associated with the alternative would create temporary negative effects on air quality, noise, water resources, residential and business access, pedestrian and vehicular traffic, and utilities.
Secondary and Cumulative					
Secondary Impacts	Traffic congestion would increase, resulting in increased congestion within the region. Growth in traffic and population and related effects would occur.	Minor negative secondary impacts on construction noise, air quality, agricultural land; Moderate negative secondary impacts on habitat, vehicle/animal collisions, native plants; and, Minor neutral secondary impacts on topography, jurisdictional waters of the U.S., land use types, community character and cohesion, economic conditions, and visual resources.		Minor negative secondary impacts on construction noise, air quality, agricultural land; Moderate negative secondary impacts on habitat, vehicle/animal collisions, native plants; and, Minor neutral secondary impacts on topography, jurisdictional waters of the U.S., land use types, community character and cohesion, economic conditions, and visual resources.	Minor negative secondary impacts on construction noise, air quality, agricultural land; Moderate negative secondary impacts on habitat, vehicle/animal collisions, native plants; and, Minor neutral secondary impacts on topography, jurisdictional waters of the U.S., land use types, community character and cohesion, economic conditions, and visual resources.

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IMPACTS	NO ACTION ALTERNATIVE	WESTERN SECTION ALTERNATIVES			EASTERN SECTION ALTERNATIVES
		W101 ALTERNATIVE AND OPTIONS	W71	W55	E1 ALTERNATIVE
Cumulative Impacts	Traffic congestion would increase, resulting in increased congestion within the region. Growth in traffic and population and related effects would occur.	Minor negative temporary cumulative impacts on construction noise; Minor negative cumulative impacts on contaminants from stormwater runoff, jurisdictional waters of the U.S., floodplains, vehicle/wildlife collisions, Section 4(f) resources, visual resources, agricultural land, land use types, community character and cohesion, traffic noise; Moderate negative cumulative impacts on topography, habitat loss, connectivity, native vegetation; Moderate positive cumulative impacts on cultural resources, traffic and access; and, Minor neutral cumulative impacts on invasive species, water availability, air quality, and land ownership.		Minor negative temporary cumulative impacts on construction noise; Minor negative cumulative impacts on contaminants from stormwater runoff, jurisdictional waters of the U.S., floodplains, vehicle/wildlife collisions, Section 4(f) resources, visual resources, agricultural land, land use types, community character and cohesion, traffic noise; Moderate negative cumulative impacts on topography, habitat loss, connectivity, native vegetation; Moderate positive cumulative impacts on cultural resources, traffic and access; and, Minor neutral cumulative impacts on invasive species, water availability, air quality, and land ownership.	Minor negative temporary cumulative impacts on construction noise; Minor negative cumulative impacts on contaminants from stormwater runoff, jurisdictional waters of the U.S., floodplains, vehicle/wildlife collisions, Section 4(f) resources, visual resources, agricultural land, land use types, community character and cohesion, traffic noise; Moderate negative cumulative impacts on topography, habitat loss, connectivity, native vegetation; Moderate positive cumulative impacts on cultural resources, traffic and access; and, Minor neutral cumulative impacts on invasive species, water availability, air quality, and land ownership.
Public/Political Acceptability					
Public Meeting Comments	The respondents from Tolleson indicated over 50% desired the No Action Alternative. All other geographic areas showed substantially less desire for the No Action (9-21%).	Respondents from Avondale/Buckeye/ Goodyear and the Southeast Valley areas in support of the freeway indicated support for this alternative. Respondents from the Estrella Village, Laveen, Northwest Valley and Northeast Valley areas in support of the freeway indicated split support for this alternative and the W55.		Respondents from the Tolleson and the South Mountain Village areas in support of the freeway indicated support for this alternative. Respondents from the Estrella Village, Laveen, the Northwest Valley and the Northeast Valley areas in support of the freeway indicated split support for this alternative and the W101.	Respondents from the Ahwatukee Foothills Village who indicated a preference preferred an alignment on GRIC land.
Political Resolutions (actions taken by local jurisdictions)		No actions in support of this alternative.	No actions in support of this alternative.	Tolleson - A resolution of the Mayor and Council of the City of Tolleson, Maricopa County, Arizona, supporting the original alignment for the South Mountain Freeway (highway 101 south extension) near 55th Avenue in the City of Phoenix. December 13, 2005 A resolution of the City Council of the City of Tolleson reaffirming the 61st Avenue alignment of a portion of the South Mountain Freeway (State Route Loop 202), between Interstate 10 West and 51st Avenue. March 23, 2004 Avondale: A resolution of the Council of the City of Avondale, Arizona, supporting the proposed alignment of the South Mountain Freeway along 55th Avenue. March 20, 2006 Phoenix: A resolution of the City Council of the City of Phoenix reaffirming the 61st Avenue alignment of a portion of the South Mountain Freeway (State Route Loop 202), between Interstate 10 West and 51st Avenue. December 17, 2003	No resolutions regarding this alternative have been passed.

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IMPACTS	NO ACTION ALTERNATIVE	WESTERN SECTION ALTERNATIVES			EASTERN SECTION ALTERNATIVES
		W101 ALTERNATIVE AND OPTIONS	W71	W55	E1 ALTERNATIVE
Estimated Costs					
Construction	Not applicable	W101WPR/FR – $794,000,000/$812,000,000 W101CPR/FR – $784,000,000/$802,000,000 W101EPR/FR – $800,000,000/$818,000,000	The W71 Alternative construction cost estimate is $517,000,000.	The W55 Alternative construction cost estimate is $598,000,000	The E1 Alternative construction cost estimate is $478,000,000
Right-of-Way	Not applicable	W101WPR/FR – $660,000,000/$628,000,000 W101CPR/FR – $750,000,000/$718,000,000 W101EPR/FR – $754,000,000/$722,000,000	The W71 Alternative right-of-way cost estimate is $706,000,000.	The W55 Alternative right-of-way cost estimate is $268,000,000	The E1 Alternative right-of-way cost estimate is $332,000,000
Total	Not applicable	W101WPR/FR – $1,454,000,000/$1,440,000,000 W101CPR/FR – $1,534,000,000/$1,520,000,000 W101EPR/FR – $ 1,554,000,000,000/$1,540,000,000	The W71 Alternative total project cost estimate is $1,223,000,000.	The W55 Alternative total project cost estimate is $866,000,000	The E1 Alternative total project cost estimate is $810,000,000

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