

# Tunnel strategy: assessment

The tunnel strategy removes the viaduct and lowers I-81 below grade in a tunnel. This strategy requires the reconstruction of I-81 on either end of the tunnel.

Transportation Assessment	Economic Competitiveness	Social Equity/Quality of Life	Environmental Stewardship
<p><b>Enhance the Transportation Network:</b></p> <ul style="list-style-type: none"> <li>90% of geometric deficiencies would be addressed.</li> <li>Constructs 53 new bridges and a 6-lane 1.65 mile tunnel; major capital investment with highest life cycle maintenance costs.</li> <li>Connectivity notably enhanced with surface boulevard over tunnel.</li> </ul> <p><b>Enhance Region-Wide Mobility:</b></p> <ul style="list-style-type: none"> <li>Travel patterns to destinations in close proximity to the interchange would be altered; circuitous travel patterns, increased delay. Regional mobility slightly improved. Notable benefits would result to the regional system efficiency, reliability, safety, and capacity.</li> <li>Fewer exits would reduce downtown interstate access. Pedestrian, bicycle, and transit facilities along the boulevard would be prominent.</li> </ul> <p><b>Improve Public Safety:</b></p> <ul style="list-style-type: none"> <li>Anticipated reduction in accident patterns and rates by addressing design deficiencies and improved capacity.</li> <li>Improved safety for pedestrians and bicyclists by improving cross connections.</li> </ul>	<p><b>Maintain or Improve Economic Opportunities:</b></p> <ul style="list-style-type: none"> <li>Notable negative impact to businesses and properties. Less convenient access to urban core.</li> <li>Multi-modal system connectivity notably enhanced with surface boulevard over tunnel; improves multi-modal access and overall livability.</li> <li>Enhanced highway operations that may benefit region-wide population growth and job access.</li> </ul> <p><b>Exercise Fiscal Responsibility:</b></p> <ul style="list-style-type: none"> <li>High investment with community benefits and significant operational improvements.</li> </ul>	<p><b>Support Community Quality of Life:</b></p> <ul style="list-style-type: none"> <li>Major property impacts including removal of numerous businesses and housing. Does not encourage sustainable land use patterns within city or county; supports sprawl.</li> <li>Several major surface roads would be severed, negatively impacting connection between Northside, Downtown, and Eastside.</li> <li>Does not support regional land use patterns or smart growth.</li> <li>Street level boulevard has high potential to improve visual character.</li> <li>Moderate consistency with city and county long term vision and preferred future land use patterns.</li> </ul> <p><b>Share Burdens and Benefits:</b></p> <ul style="list-style-type: none"> <li>Benefits not shared equally among city neighborhoods.</li> <li>Higher burden compared to other strategies. Greater number of property displacements in EJ neighborhoods.</li> </ul>	<p><b>Preserve or Enhance Environmental Health:</b></p> <ul style="list-style-type: none"> <li>Does not conflict with local, regional, or state environmental initiatives. Limited integration with city bike plan where roads are severed.</li> <li>Possible air quality impacts due to potentially higher emissions.</li> <li>Noise levels in general are anticipated to be lower with traffic traveling within enclosed tunnel. Noise levels would increase by tunnel portals due to reverberance.</li> <li>Impact to community landmarks or historic resources depending on footprint.</li> <li>Preferred stormwater pumping station for tunnel drainage.</li> </ul>
Good to Fair	Fair	Poor to Very Poor	Poor to Very Poor

**Cost Range:** \$1.6-1.8 billion; Roadway: \$120-150 million, Bridges: \$480-550 million, Tunnel: \$1.1 billion.

**Recommendation/Feasibility:** The tunnel strategy in the viaduct priority area *is not feasible* and is eliminated from further consideration. Very high investment to improve system operations, safety, and capacity; would have significant negative economic, social, and environmental impacts.