

F0475 SR 101L/I-10 TI DCR

Evaluation Criteria, Performance Measures, and Subalternatives for Connection from Southbound SR 101L to 91st Avenue

Date:

4/11/2023

Criteria	Performance Measure	Alternative 1 Single Lane Exit to 91st Avenue Ramp Over Existing McDowell Road Exit Flyover Ramp to 91st Avenue	Alternative 2 Two Lane Combined Exit to McDowell Road and 91st Avenue Flyover Ramp to 91st Avenue	Alternative 3 Relocated Single Lane Exit to McDowell Road Braid Over Existing Thomas Road Entrance Slip Ramp From System Ramp S-E to 91st Avenue
Total Project Cost	Preliminary Estimated Cost	High Cost	Highest Cost	Lowest Cost
Traffic Operational Performance	Level of service and ability to improve/reduce weaving.	<div><div></div><div><div>· Removes traffic destined for 91st Avenue from the McDowell Road and Thomas Road ramp intersections</div><div>· SR 101L southbound traffic exiting to McDowell Road backs onto the freeway during the p.m. peak travel period</div><div>· Keeps the weaving movement between the Thomas Road southbound entrance and the McDowell Road Exit on SR 101L</div></div></div>	<div><div></div><div><div>· Eliminates the weaving movement between the Thomas Road southbound entrance and the McDowell Road Exit</div><div>· McDowell Road exiting traffic turning right at the intersection will have more distance for queuing, reducing risk of backing onto the freeway</div><div>· Removes traffic destined for 91st Avenue from the McDowell Road and Thomas Road ramp intersections</div></div></div>	<div><div></div><div><div>· Adds 91st Avenue traffic to Ramp S-E</div><div>· Eliminates the weaving movement between the Thomas Road southbound entrance and the McDowell Road Exit</div><div>· Slightly reduces the length from the 91st Avenue ramp merge to the 91st Avenue exit ramp intersection</div><div>· Removes traffic destined for 91st Avenue from the McDowell Road and Thomas Road ramp intersections</div></div></div>
Constructability	Baseline of standard construction activities. Are there elements that require special equipment?	<div><div></div><div><div>· Includes a new flyover bridge over the existing system interchange</div></div></div>	<div><div></div><div><div>· Includes a new flyover bridge over the existing system interchange</div><div>· Includes the longest braided ramp over the Thomas Road southbound entrance ramp</div></div></div>	<div><div></div><div><div>· No flyover bridge over the existing system interchange</div><div>· Construction between Ramp S-E and the existing eastbound I-10 to 91st Avenue exit ramp</div></div></div>
Maintenance of Traffic	Baseline of typical traffic control versus extended closures.	<div><div></div><div><div>· Requires construction over both directions of I-10 and the system interchange ramps</div></div></div>	<div><div></div><div><div>· Requires construction over both directions of I-10 and the system interchange ramps</div></div></div>	<div><div></div><div><div>· May require a lane closure on Ramp S-E to construct the slip ramp</div><div>· Does not require construction over I-10 or the system interchange ramps</div></div></div>
Structures	Level of complexity of structures and retaining walls.	<div><div></div><div><div>· Requires a new flyover bridge at the system interchange and at the Thomas Road southbound entrance ramp</div></div></div>	<div><div></div><div><div>· Requires a new flyover bridge at the system interchange and at the Thomas Road southbound entrance ramp</div></div></div>	<div><div></div><div><div>· Requires a bridge at the Thomas Road southbound entrance ramp, but no flyover</div></div></div>
Right-of-Way	Area of anticipated right-of-way required.	<div><div></div><div><div>· Requires a small strip of right-of-way between Thomas Road and McDowell Road</div><div>· Requires a small strip of right-of-way and billboard relocation near the 91st Avenue intersection</div></div></div>	<div><div></div><div><div>· Requires a small strip of right-of-way between Thomas Road and McDowell Road</div><div>· Requires a small strip of right-of-way and billboard relocation near the 91st Avenue intersection</div></div></div>	<div><div></div><div><div>· Requires a small strip of right-of-way between Thomas Road and McDowell Road</div><div>· Requires a small strip of right-of-way and billboard relocation near the 91st Avenue intersection</div></div></div>
Drainage	Level of complexity of onsite drainage.	<div><div></div><div><div>· Requires drainage facilities on a new flyover bridge</div></div></div>	<div><div></div><div><div>· More surface area with the two lane ramp from Thomas Road to McDowell Road</div><div>· Requires drainage facilities on a new flyover bridge</div></div></div>	<div><div></div><div><div>· Does not require drainage on a flyover structure</div></div></div>
Utilities	Level of utility relocations.	<div><div></div><div><div>· Requires relocation of SRP irrigation line.</div></div></div>	<div><div></div><div><div>· Requires the most length of relocation of SRP irrigation line</div></div></div>	<div><div></div><div><div>· Requires relocation of SRP irrigation line</div></div></div>
Environmental Considerations	Potential environmental impacts (noise, air, etc.).	<div><div></div><div><div>· Possible noise impact on adjacent properties with addition of a single-lane ramp</div></div></div>	<div><div></div><div><div>· Possible noise impact on adjacent properties with the addition of a two-lane ramp</div></div></div>	<div><div></div><div><div>· Possible noise impact on adjacent properties with the addition of a single-lane ramp</div></div></div>

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Maintenance/Access	Cost and complexity of future maintenance.	<div><div></div><div><ul style="list-style-type: none">· Requires maintenance access adjacent to retaining walls· Landscape area between SR 101L mainline and new ramp· Requires maintenance of new flyover structure</div></div>	<div><div></div><div><ul style="list-style-type: none">· Requires maintenance access adjacent to retaining walls· Landscape area between SR 101L mainline and new ramp· Requires maintenance of new flyover structure· More pavement area with two-lane ramp</div></div>	<div><div></div><div><ul style="list-style-type: none">· Requires maintenance access adjacent to retaining walls· Landscape area between SR 101L mainline and new ramp· No flyover ramp</div></div>
Meets ADOT RDG	Grades whether design meets ADOT design criteria or would require a design exception.	<div><div></div><div><ul style="list-style-type: none">· Can meet ADOT design criteria</div></div>	<div><div></div><div><ul style="list-style-type: none">· Can meet ADOT design criteria</div></div>	<div><div></div><div><ul style="list-style-type: none">· Can meet ADOT design criteria</div></div>
Local Agency Support	Feedback received from local agencies.	<div><div></div><div><ul style="list-style-type: none">· Local Agencies indicated support for eliminating this alternative</div></div>	<div><div></div><div><ul style="list-style-type: none">· Local Agencies indicatated some support for this since it provides access to 91st Avenu from SR 101L.</div></div>	<div><div></div><div><ul style="list-style-type: none">· Local Agencies indicatated a preference for this alternative due to the lower cost, while continuing to provide access to 91st Avenu from SR 101L.</div></div>
Public Acceptance	Feedback received from public information meeting.	<div><div></div><div><ul style="list-style-type: none">· The public indicated support for a connection that provides access from SR 101L to 91st Avenue, but did not indicate a preference for an alternative.</div></div>	<div><div></div><div><ul style="list-style-type: none">· The public indicated support for a connection that provides access from SR 101L to 91st Avenue, but did not indicate a preference for an alternative.</div></div>	<div><div></div><div><ul style="list-style-type: none">· The public indicated support for a connection that provides access from SR 101L to 91st Avenue, but did not indicate a preference for an alternative.</div></div>
EMS/Police/Fire Access	Feedback received from meeting with emergency personnel.	<div><div></div><div><ul style="list-style-type: none">· Provides additional access to 91st Avenue</div></div>	<div><div></div><div><ul style="list-style-type: none">· Provides additional access to 91st Avenue</div></div>	<div><div></div><div><ul style="list-style-type: none">· Provides additional access to 91st Avenue</div></div>
Adjacent Project Coordination	SR 101L future GPL compatibility, 91st Avenue compatibility.	<div><div></div><div><ul style="list-style-type: none">· No known impacts</div></div>	<div><div></div><div><ul style="list-style-type: none">· No known impacts</div></div>	<div><div></div><div><ul style="list-style-type: none">· No known impacts</div></div>
Miscellaneous	Other considerations.	<div><div></div><div><ul style="list-style-type: none"></div></div>	<div><div></div><div><ul style="list-style-type: none">· Entering vehicles at Thomas can no longer exit at McDowell</div></div>	<div><div></div><div><ul style="list-style-type: none">· Entering vehicles at Thomas can no longer exit at McDowell· Driver expectancy may be reduced with the slip ramp exit from a system ramp</div></div>
Recommended?		ELIMINATE	ADVANCE!	ADVANCE!