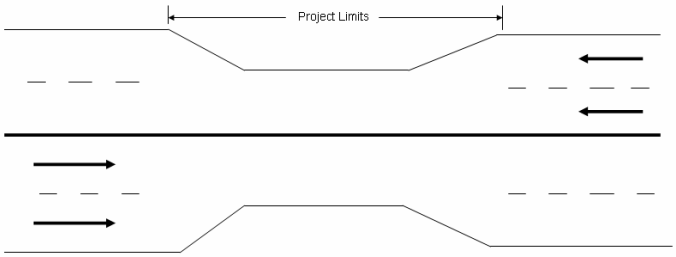
2008 RTIP Unique Project Modeling Scenarios

Project Type: Arterial Gap Closure Widening Project

Description	An arterial widening project where each side of the arterial outside of the project limits is already widened to the number of through lanes that the gap widening portion will accomplish
Programming Conformity Status	Non exempt, capacity enhancing project
Submit for Modeling?	Yes

Programming Reminder Notes:
The widening segment length is not relevant in determining if the project is exempt or non exempt. Regardless of the gap closure segment length, the project should be considered a capacity enhancing project and should be submitted into the RTIP with the required modeling details.

Project Scenario: Arterial Gap Closure Widening Project
Examples: Widen from 2 to 4 through lanes or 4 to 6 through lanes



Required Modeling Details:

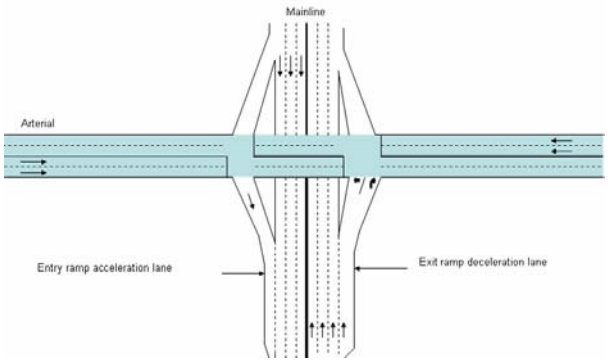
Within the gap closure project limits:
- Gap closure project segment length
- Existing number of through lanes in each direction
- Existing total number of through lanes
- Improvement number of through lanes in each direction
- Improvement number of total through lanes
- Project exhibit diagram

Outside the project limits:
- Existing number of through lanes in each direction before and after project limits
- Existing total number of through lanes before and after project limits

Project Type: Extended IC Ramp Acceleration/Deceleration Lanes

Description	An IC improvement project that includes modifications to existing ramps and/or new ramps that are significantly extended.
Qualifying Notes	The IC ramp acceleration/ deceleration lane(s) should terminate at the mainline and not extend to the next IC. If they do, then the lane(s) is now an auxiliary lane. The ramp extension also should only be a reasonable length and generally not exceed a ¼ mile in length.
Programming Conformity Status	SCAG model can include the ramp changes.
Submit for Modeling?	Yes

Project Scenario: Extended Entry/Exit Ramp Acceleration/Deceleration Lanes
Example: IC Improvement that includes an extended entry ramp acceleration lane and/or an extended exit ramp deceleration lane



Required Modeling Details:
- Ramp length from the arterial to termination at the mainlinE
- Type of ramps, mixed flow or HOV exclusive
- Existing and proposed number of lanes
- Project exhibit diagram

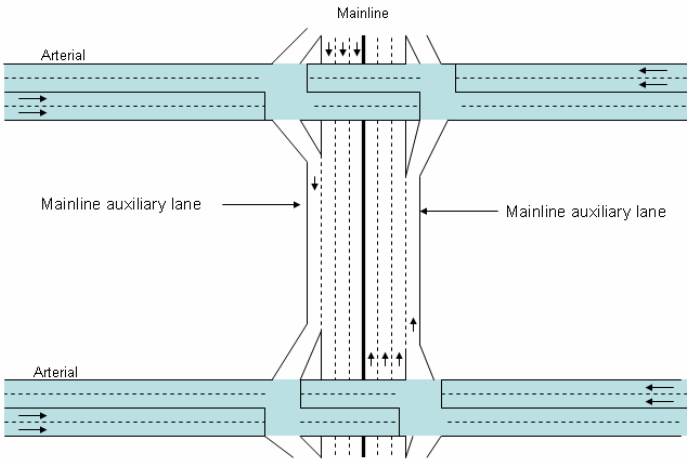
Programming Reminder Notes:
Identifying the extended ramp as an acceleration/deceleration lane or an auxiliary lane needs to occur at an early PDT. There also are scenarios where the extended ramp could be of sufficient length to make the project a capacity enhancing project. Because the SCAG model has the capability to model ramps, and most IC improvement projects will include ramp widening, treat the IC extended ramp or acceleration/ deceleration lane as a scope element that requires modeling.

Project Type: Mainline Auxiliary Lanes

Description	An added lane on the outside of a freeway that extends only from the onramp(s) of one IC to the off-ramp(s) of the next. A lane that extends all the way through an IC is not an auxiliary lane, but a through lane and should be modeled as a capacity enhancing project.
Programming Conformity Status	Non exempt capacity enhancing project
Submit for Modeling?	Yes

Programming Reminder Notes:
The Conformity Rule does not exempt auxiliary lanes from air conformity modeling requirements. Since an auxiliary lane and an acceleration/deceleration lane are close in design and scope, an effort should be made at an early PDT meeting to clearly differentiate if the added lane is an auxiliary lane or an acceleration/deceleration lane. Adding a lane to a freeway is considered regionally significant and needs to be included in the regional modeling analysis. Until a formal definition for a minimum length of an auxiliary lane can be determined, there is no minimum length for an auxiliary lane. The lane should be treated as a capacity enhancing project and submitted with all required modeling details.

Project Scenario: Mainline Auxiliary Lanes
Example: Auxiliary lanes added between two ICs that begin at the end of the entry ramp and terminate at the next IC's exit ramp



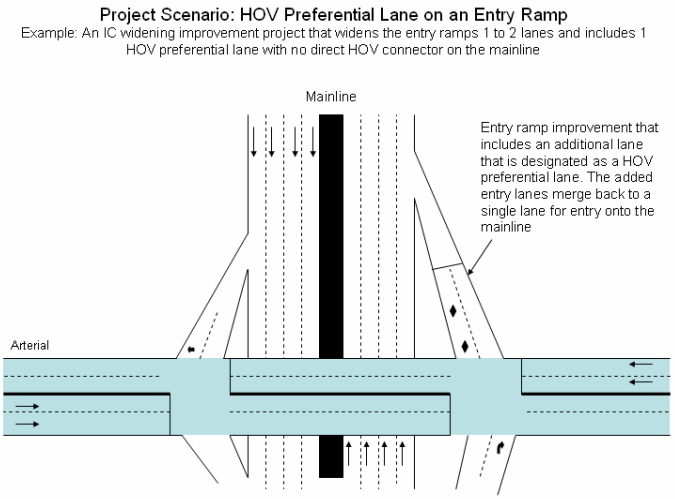
Required Modeling Details:
- Type of auxiliary lane (e.g. mixed flow lanes) including the locations of the beginning and end points
- Length and number of lanes
- Project exhibit diagram

Added Details:
- Since the auxiliary lane will be modeled, it needs to be included in the project description as one of the major scope elements

Project Type: IC Entry Ramp Widening That Include a HOV Preferential Lane

Description	An IC improvement project that includes entry ramp widening where one of the added entry ramp lanes is designated to be a HOV preferential lane. The added HOV lane is assumed to terminate prior to the mainline and is not a HOV direct connector. The added entry ramp lanes also are assumed to merge back to a single lane for entry onto the mainline
Programming Conformity Status	In this scenario, the ramp improvement normally would be considered exempt from regional modeling analysis. HOWEVER, the SCAG model has the capability to model the ramp improvements and should be considered capacity enhancing from a programming and modeling perspective. Submit with all required modeling details.
Submit for Modeling	Yes

Programming Reminder Notes:
Currently, the HOV preferential lane will be modeled as a standard mixed flow lane. <u>The HOV lane also needs to be called specifically in the RTIP project description</u> as a major scope element. In this scenario, the added entry ramp lanes are assumed will merge back to a single lane for entry onto the mainline. If the entry lane improvement appears to include a significant extension, the lane now could be viewed also as an acceleration lane and the modeling details should address the added length. Clarification of the lane needs to be addressed at an early PDT meeting to ensure the correct modeling details are submitted.



Required Modeling Details:
- Existing number of ramp lanes
- Improvement number of ramp lanes
- Identification of the HOV preferential lane
- Clarification that the added lanes merge back to a single lane for entry onto the mainline
- Project exhibit diagram

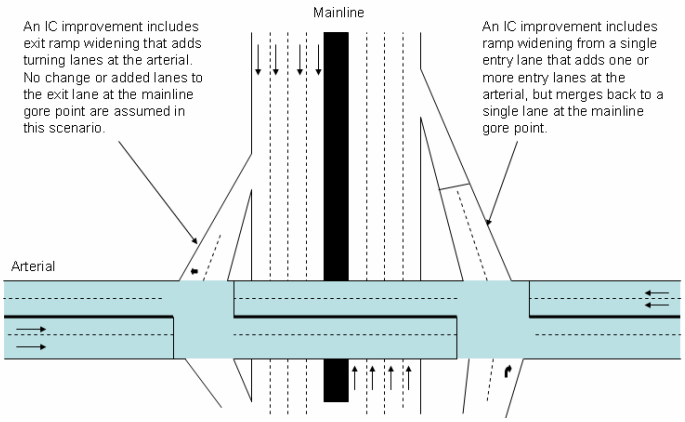
Added Details:
- The HOV preferential lane needs to be included in the project description as a major scope element

Project Type: An IC Improvement with Exit and/or Entry Ramp Lane Widening

Description	An IC improvement project that includes exit and/or entry ramp lane widening. The added exit ramp lane(s) provides additional turning lanes at the arterial. There is no change to the exit ramp lane off the mainline. The entry lane improvement adds one or more entry lanes at the arterial. The lanes merge back to a single lane or the existing lane configuration for entry onto the mainline. There are no added lanes beyond the mainline gore point.
Programming Conformity Status	These types of improvements would be considered exempt from regional modeling. HOWEVER, since the SCAG model has the ability to model ramp improvements, treat as a capacity enhancing, non exempt improvement and submit with all required modeling details.
Submit for Modeling?	Yes

Programming Reminder Notes:
If the entry ramp includes an HOV preferential lane, then see the HOV ramp lane project type section. If the ramp improvements will extend the lane or add lanes at or beyond the mainline gore point, then the improvement is no longer a channelization improvement, but now capacity enhancing. Review the Ramp Acceleration/Deceleration and/or Auxiliary Lane section to determine if the project now falls into this category as well. Discuss and resolve any ramp improvement questions at an early PDT to ensure the modeling details are correctly submitted.

Project Scenario: Adding Lanes on to Ramps
Example: An IC widening improvement project that widens the exit and entry ramps 1 to 2 lanes.



Required Modeling Details:
- Existing number of ramp lanes
- Improvement number of ramp lanes
- Clarification that the added lanes merge back to a single lane for entry onto the mainline for the entry lanes and there is no change at the mainline gore point for the exit lane
- Project exhibit diagram

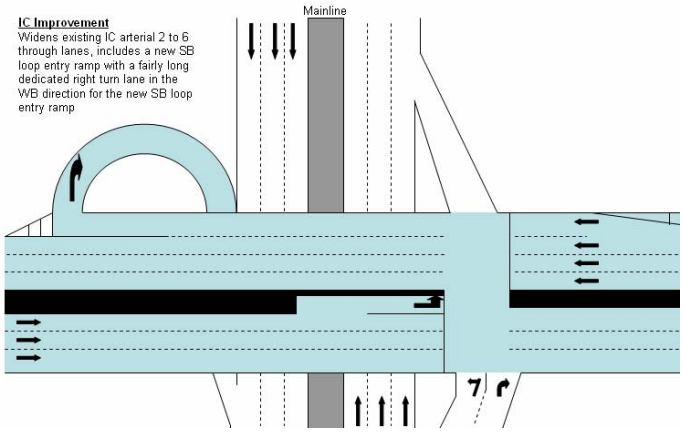
Added Details:
- Include the ramp lane change in the project description (e.g. Widen SB Exit Ramp from 1 to 2 lanes)

Project Type: Extended Arterial Right-Turn Lanes

Description:	An IC improvement that widens the number of arterial through lanes and includes and extended dedicated right-turn lane. The extended right turn-lane would terminate at the entry ramp.
Programming Conformity Status	Exempt, non capacity enhancing improvement element
Submit for Modeling?	No

Programming Reminder Notes:
No clear guidance currently exists for these type of lanes. Since the lanes are not through lanes, they appear to function more as channelization improvements. The lanes should not be counted as part of the through lane scope improvement. However, including the extended right-turn lane in the project description is recommended to ensure the scope element is identified.

Project Scenario: Extended Arterial Right-Turn Lanes
Example: IC Improvement that includes an extended arterial right-turn lane



Required Modeling Details:
- Not applicable