



Alternative 5C

General Description

Alternative 5C focuses on making improvements to the I-710 mainline freeway similar to the concepts previously defined and analyzed in the June 2012 Draft EIR/EIS as Alternative 5A (10-GP Lanes). In this case, Alternative 5C would add general purpose (GP) lane capacity to I-710 as well as geometric design improvements needed to modernize the freeway in order to address traffic flow and safety. Alternative 5C improves upon this design concept by adding design features at key locations to separate cars and trucks and by adding air quality measures. It includes full “Safety Modernization” features and it incorporates selected community elements such as bicycle and pedestrian linkages. Physically, Alternative 5C is different from Alternative 7 in that it does not include a freight corridor. Major components of Alternative 5C are further described in the following overview.

Design Features for High Truck Volume Locations

Alternative 5C includes several design features that are targeted towards reducing truck-auto conflicts on the freeway, which, in turn, reduces the risk of accidents.

- Buffered Downtown-Only Lanes approaching downtown Long Beach (i.e., south of I-405) – A high percentage of autos are separated from a high percentage of trucks along this segment of I-710.
- Truck Bypass Lanes at the I-405 Interchange – Trucks on I-710 are separated from autos through the interchange.
- Connector and Ramp Braiding at the SR-91 and I-105 Interchanges – Short weaving areas are removed on both the I-710 and SR-91.
- Local Interchange Modifications in the Central Section of the Corridor – Leads to more efficient traffic operations that reduce ramp queuing.
- Collector Distributor Roads and Ramp Braiding for the stretch of I-710 between Bandini Blvd. and I-5 – Short weaving areas are removed and trucks bound for local industry and inland areas are separated.

Freeway

As indicated by traffic analysis and geometric development studies, Alternative 5C proposes operational design features at high truck volume locations. General purpose lanes would be added to capacity deficient sections. To help reduce right of way impacts, the mainline alignment of I-710 would be optimally placed and abutments/columns for overcrossing



structures would be positioned without accommodation of future general purpose through lanes and/or freight corridor capacity additions.

Interchanges

Safety Modernization improvements feature interchange reconfigurations that correct and/or improve existing deficient traffic operations. Deficiencies include high accident and traffic conflict locations that degrade capacity. These configuration strategies include:

- Combining ramp entrances/exits to remove mainline conflict points.
- Braiding ramps to separate conflict points.
- Limiting or removing local ramps within system interchanges to remove conflict points.
- Adding or extending auxiliary lanes to correct/improve deficient merging/diverging operations.
- Correcting/improving poor geometrics, such as sight distance, curve design speed, clearances, and other key features.
- Controlling ramp intersections and modifying adjacent intersections on local streets.

Air Quality Improvement Measures

The following measures are proposed as programmatic features to be included in the overall funding commitments for Alternative 5C. Specific funding amounts are still to be determined, but the measures listed below would be in addition to any specific mitigation measures included in the RDEIR/SDEIS to address air quality/health risk impacts resulting from project construction or operation:

- Funding of facilities needed to support zero emission/near zero emission (ZE/NZE) trucks within the I-710 Corridor, such as electric charging stations and/or hydrogen refueling stations.
- Funding of ZE/NZE trucks through existing programs (e.g., Measures ONRD-01 through ONRD-04 in the 2012 Air Quality Management Plan) and/or through new programs such as the Gateway Cities Technology Deployment Program currently under development. Funding will require that a fixed percentage (e.g., 80%) of the vehicle miles traveled (VMT) of these new ZE/NZE trucks would occur within a defined air quality improvement “zone” within the I-710 Corridor.
- Funding of an I-710 Corridor Community Health Program, similar to the Port of Long Beach’s Community Mitigation Grant Program.



Other Components

- I-710 Study Area Arterial Intersection Improvements, incorporating modifications needed to address deficiencies based on updated traffic forecasting results.
- Active Transportation Features (New Enhancements), such as River-Park Pathway Connections (selected from the Gateway Cities Active Transportation Plan) and improved bicycle and pedestrian elements of I-710 arterial interchange modifications.
- TSM/TDM/ITS Improvements, such as adaptive ramp metering on I-710, peak period parking restrictions on selected key arterials, and updated traffic signals.
- Transit Improvements, including increased light rail service (Blue Line, Green Line), Metrolink commuter rail service, express bus service, and local bus service, within the I-710 Study Area.
- Alternative 1 (No Build) Improvements (including maximum goods movement by rail).
- Consideration of Public/Private Partnership (PPP) options to finance and construct Alternative 5C.

ALTERNATIVE 5C

