

LOOP 202
South Mountain
Freeway

CONNECT 202
PARTNERS

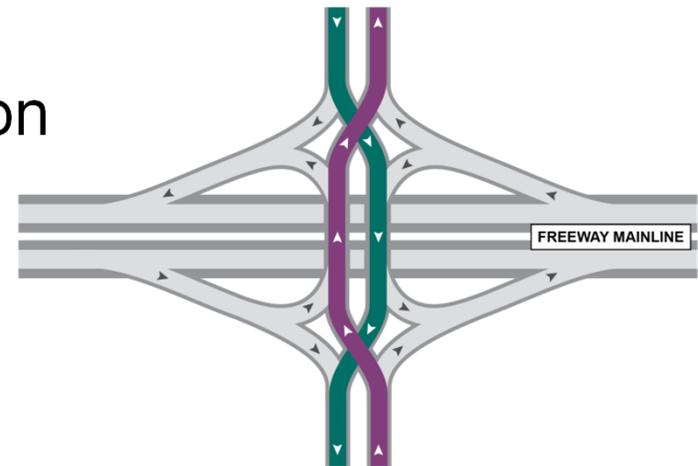
Diverging Diamond Interchange

June 15, 2016



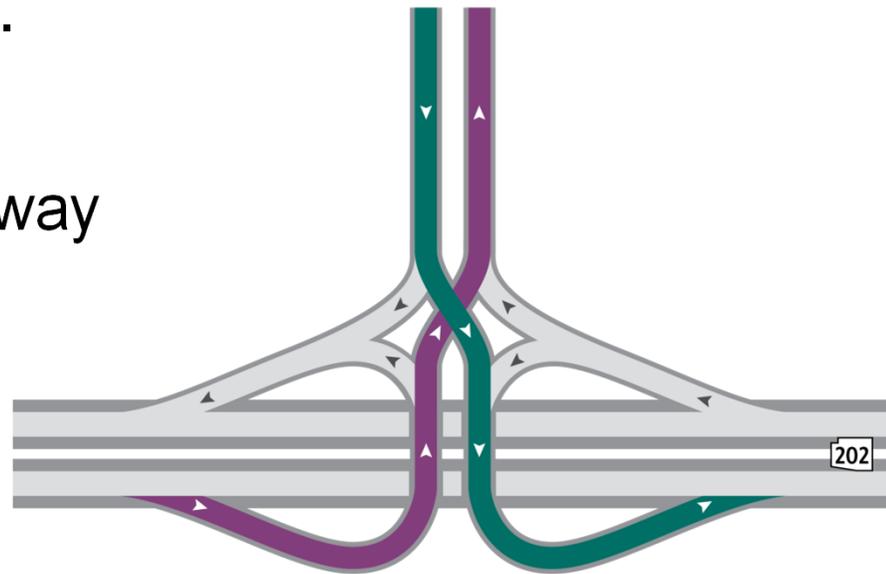
Diverging Diamond Interchange (DDI)

- Drivers going in both directions on the approach road cross to the opposite side on both sides of the bridge at the freeway
 - Requires traffic on the crossroad overpass (or underpass) to briefly drive on the opposite side of the road
 - Allows for two-phase operation at all signalized intersections within the interchange



Diverging Diamond Interchange (DDI)

- Three half-DDIs are planned for the South Mountain Freeway at:
 - 24th Street
 - Desert Foothills Parkway
 - 17th Avenue
- Full configuration not needed
 - No connections to the south



Graphic representation similar to configuration planned for Desert Foothills Parkway. The freeway mainline will go over the crossroads at 24th Street and 17th Avenue.

Benefits of the DDI

- Improves safety
 - Eliminates long left turns where drivers on the right side of the road must clear opposing traffic
 - Reduces the number of conflict points
 - Recent studies of DDIs nationwide by University of Missouri indicate:
 - Overall crashes decreased by more than 50 percent at DDI locations
 - Fatal and injury crashes decreased by more than 70 percent

Benefits of the DDI (continued)

- Improves efficiency
 - Provides more green-light time
 - Motorists wait through only two traffic signal intervals rather than the six or more found in other interchange designs
 - Increases capacity of an overpass or underpass by removing the need for turn lanes required for other interchange types
- Minimizes right of way footprint
 - Reduces the number of lanes needed on the cross road

New Concept for Metro Phoenix

- Local drivers may be unfamiliar with the DDI configuration and merging maneuvers
- Signage and pavement markings will be used to alert drivers to the change in traffic flow



Questions and Comments

- Direct questions to a Project team member
- Submit your input on the comment form and return it to the sign-in table

Your input is appreciated!