

SUPERSTREETS

Description

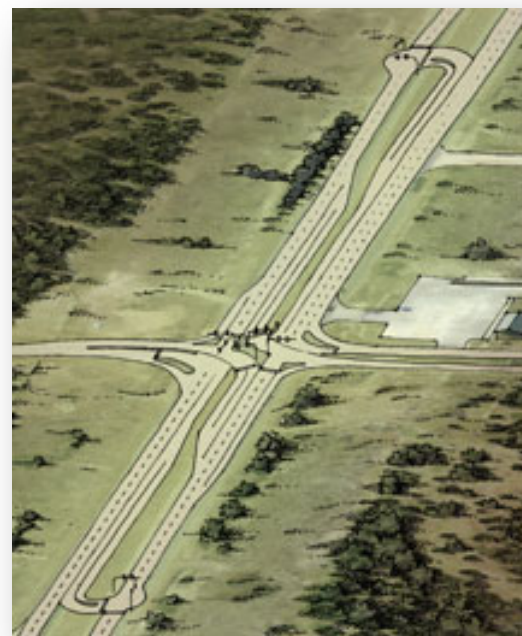
A “superstreet” is a divided highway with intersections in which the minor cross-street traffic is prohibited from going straight through or turning left. The minor cross street traffic must turn right, but can then access a U-turn to proceed in the desired direction. This reduces the number of traffic signal phases—allowing for longer green times on the major roadway—thus reducing congestion caused by the signals.

North Carolina employs the superstreet concept in several corridors. Results of a 2010 study showed the superstreet intersections outperformed conventional intersections, reducing the overall average travel time per vehicle traveling through the intersection.

How Will This Help?

- Increase safety by reducing the number of conflict points.
- Reduce delay, improve capacity through shorter cycle lengths, and simplify signal timing.
- Maintains existing commercial access.

A recent before-after study for Loop 1604 between SH 151 and Braun Road in San Antonio found evening peak period travel time reductions of 14 percent in the northbound direction and 35 percent in the southbound direction. An Alamo RMA before-after study on US 281 in San Antonio found that travel times were shorter and average speed higher even though traffic volumes increased in the corridor as shown in the table below.



Alamo RMA

Cost:	●●●●○
Time:	Moderate
Impact:	Corridor
Who:	State & Local
Hurdles:	Right-of-way Public Acceptance

Implementation Issues

The additional right-of-way and paved surfaces required to construct the modified left-turn facilities could increase cost. Public acceptance requires adequate education before opening the facility.

San Antonio Superstreets	Before	After
Morning Rush Hour (Southbound: Bulverde to Loop 1604)		
Travel Time	23.3 minutes	18.9 minutes
Average Speed	16 mph	20 mph
Evening Rush Hour (Northbound: Loop 1604 to Bulverde)		
Travel Time	19.2 minutes	12.7 minutes
Average Speed	19 mph	29 mph
<i>Traffic count (north of Evans)</i>	<i>60,100 vehicles/day</i>	<i>63,552 vehicles/day</i>
<i>Traffic count (south of Evans)</i>	<i>74,000 vehicles/day</i>	<i>81,526 vehicles/day</i>

Source: <http://www.texashighwayman.com/superstreets.shtml>

Success Story

The San Antonio area has two sections of superstreets: one on US 281 North (four intersections) and one on Loop 1604 West (two intersections). In both cases, the superstreet provides a transition between the freeway and non-freeway sections of those roads. Both are considered “short-term” improvements while planning is completed and funding acquired for upgrades that are more substantial.