

Will the Roundabout Change Operations on Highway 50?



Based on the modeling, the roundabout at Highway 60 has **little effect** on the current number of gaps and the delays experienced at local roads throughout the corridor.

(See video comparison)

Example Results – Jaguar Avenue

	AM Peak Hour		PM Peak Hour	
	Existing	with Roundabout at CH 60	Existing	with Roundabout at CH 60
# Vehicles <i>(Volume Demand)</i>	120	120	70	70
Average Number of Gaps	115	117	75	68
Number of vehicles that can access Highway 50 with these gaps	320	303	192	135
Side Street Delay <i>(Level of Service and Average Delay in Seconds)</i>	LOS C (16 sec)	LOS B (14 sec)	LOS C (25 sec)	LOS C (22 sec)

(See location specific results on individual intersection boards)

SUMMARY

What if there is a signal at 192nd Street?

There are some minor and likely unnoticeable changes in gaps at intersections along the corridor with the installation of a signal at 192nd Street.

	AM Peak Hour			PM Peak Hour		
188th Street	Existing	with Roundabout at CH 60	with Roundabout at CH 60 & Signal at 192 nd	Existing	with Roundabout at CH 60	with Roundabout at CH 60 & Signal at 192 nd
# Vehicles <i>(Volume Demand)</i>	45	45	45	20	20	20
Average Number of Gaps	83	73	85	59	44	50
Number of vehicles that can access Highway 50 with these gaps	174	140	199	147	78	99

	AM Peak Hour			PM Peak Hour		
192ND Street	Existing	with Roundabout at CH 60	with Roundabout at CH 60 & Signal at 192 nd	Existing	with Roundabout at CH 60	with Roundabout at CH 60 & Signal at 192 nd
# Vehicles <i>(Volume Demand)</i>	140	140	140	110	110	110
Average Number of Gaps	93	92	Signal	67	59	Signal
Number of vehicles that can access Highway 50 with these gaps	225	199	NA	162	107	NA

	AM Peak Hour			PM Peak Hour		
Jaguar Avenue	Existing	with Roundabout at CH 60	with Roundabout at CH 60 & Signal at 192 nd	Existing	with Roundabout at CH 60	with Roundabout at CH 60 & Signal at 192 nd
# Vehicles <i>(Volume Demand)</i>	120	120	120	70	70	70
Average Number of Gaps	115	117	116	75	68	77
Number of vehicles that can access Highway 50 with these gaps	320	303	324	192	135	199

What will improve gaps along the corridor?

A four-lane roadway will increase the number of gaps at most locations along the corridor.



	AM Peak Hour			PM Peak Hour		
188th Street	Existing	with Roundabout at CH 60	with Roundabout at CH 60 & 4-Lane	Existing	with Roundabout at CH 60	with Roundabout at CH 60 & 4-Lane
Average Number of Gaps	83	73	120	59	44	73
Number of vehicles that can access Highway 50 with these gaps	174	140	270	147	78	136

	AM Peak Hour			PM Peak Hour		
192nd Street	Existing	with Roundabout at CH 60	with Roundabout at CH 60 & 4-Lane	Existing	with Roundabout at CH 60	with Roundabout at CH 60 & 4-Lane
Average Number of Gaps	93	92	96	67	59	63
Number of vehicles that can access Highway 50 with these gaps	225	199	214	162	107	116

	AM Peak Hour			PM Peak Hour		
Jaguar Avenue	Existing	with Roundabout at CH 60	with Roundabout at CH 60 & 4-Lane	Existing	with Roundabout at CH 60	with Roundabout at CH 60 & 4-Lane
Average Number of Gaps	115	117	146	75	68	92
Number of vehicles that can access Highway 50 with these gaps	320	303	406	192	135	185

What Can Be Done to Improve the Future Operations of Highway 50?

- A four-lane roadway with existing traffic provides more gaps at most locations along the corridor.
- A four-lane divided roadway will better accommodate future volumes of up to 27,000 vehicles a day on the Highway 50 corridor.
- New roadway connections should be implemented to provide access to controlled intersections, especially for Jaguar Avenue.
- A long-term access plan should be adopted for the corridor that minimizes the risk of safety issues while providing for efficient traffic operations.



