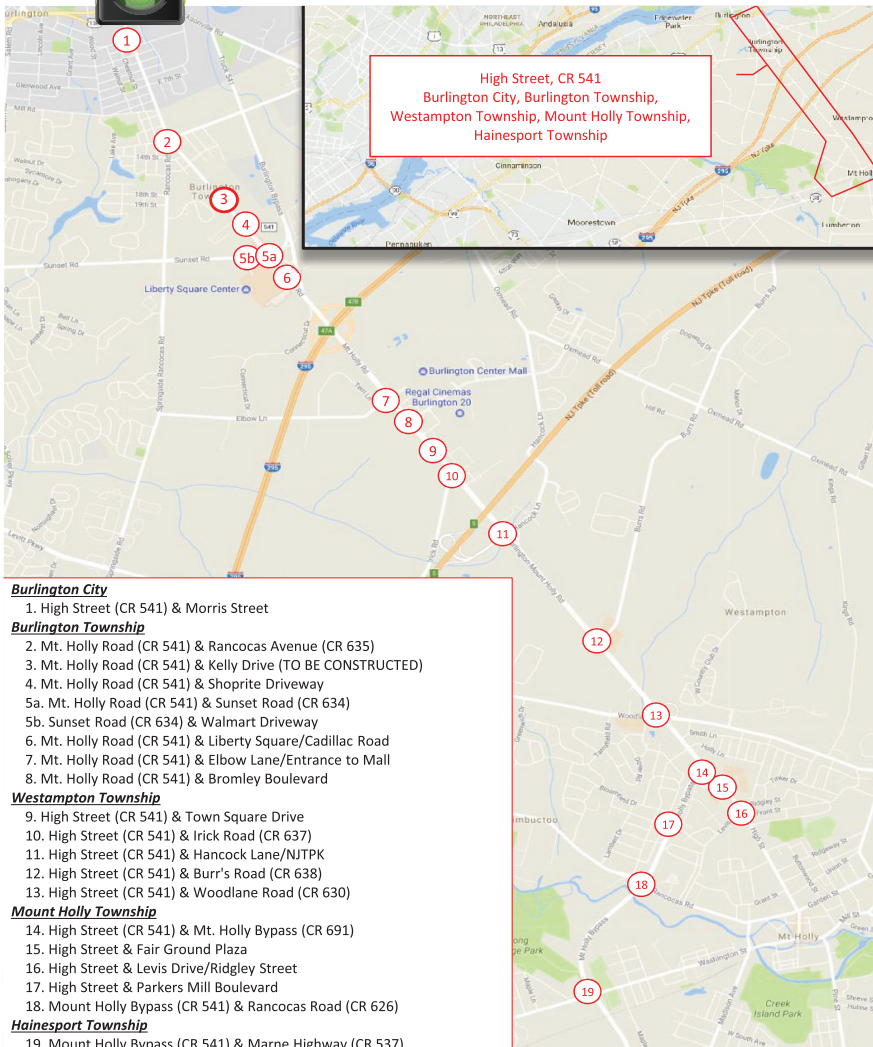




DVRPC NEW JERSEY COUNTY SIGNAL RETIMING INITIATIVE

CR 541, Burlington-Mount Holly Rd/Mount Holly Rd/High Street



Traffic signal retiming work has been completed at 19 signalized intersections along CR 541 in Central Burlington County. This work started May 2018, following the completion of Phase 1 and establishing a priority list with the county. Updated timing plans, adjustments to cycle lengths, splits, offsets, and the introduction of additional time-of-day coordination patterns were completed by December 15, 2018.

Data Collection/Analysis

The Consultant Project Team ADT counts to determine the number of system programs. Through use of Synchro/ SimTraffic 8.0 and Tru-Traffic 10.0, the team accommodated traffic demands throughout the day.

Implementation

During the week of August 20, 2018, the team implemented the optimized timing plans into each of the 19 controllers and verified that each controller maintained a common time standard throughout implementation.

Fine Tuning

The team observed each new timing plan at every intersection during its peak hour and adjustments were made to manage queue spillback and blockage. Offset adjustments were made at coordinated intersections.

Peak Hour Travel Time and Delay Improvements

		AM Peak		Mid-day Peak		PM Peak		Weekend Mid-day Peak	
		Travel Time (s)	Delay (s)	Travel Time (s)	Delay (s)	Travel Time (s)	Delay (s)	Travel Time (s)	Delay (s)
Northbound	Existing	654	192	726	271	768	306	659	198
	Implemented	547	85	565	110	605	143	532	71
	Difference	-107		-161		-163		-127	
	% Difference	-16.4%	-55.7%	-22.2%	-59.4%	-21.2%	-53.3%	-19.3%	-64.1%
Southbound	Existing	651	194	645	181	689	232	649	192
	Implemented	573	116	556	92	529	72	559	102
	Difference	-78		-89		-160		-90	
	% Difference	-12.0%	-40.2%	-13.8%	-49.2%	-23.2%	-69.0%	-13.9%	-46.9%

Northbound: Levis Drive to Morris Street

Southbound: Morris Street to Levis Drive