

# 80th Avenue: Indiana Street to Sheridan Boulevard

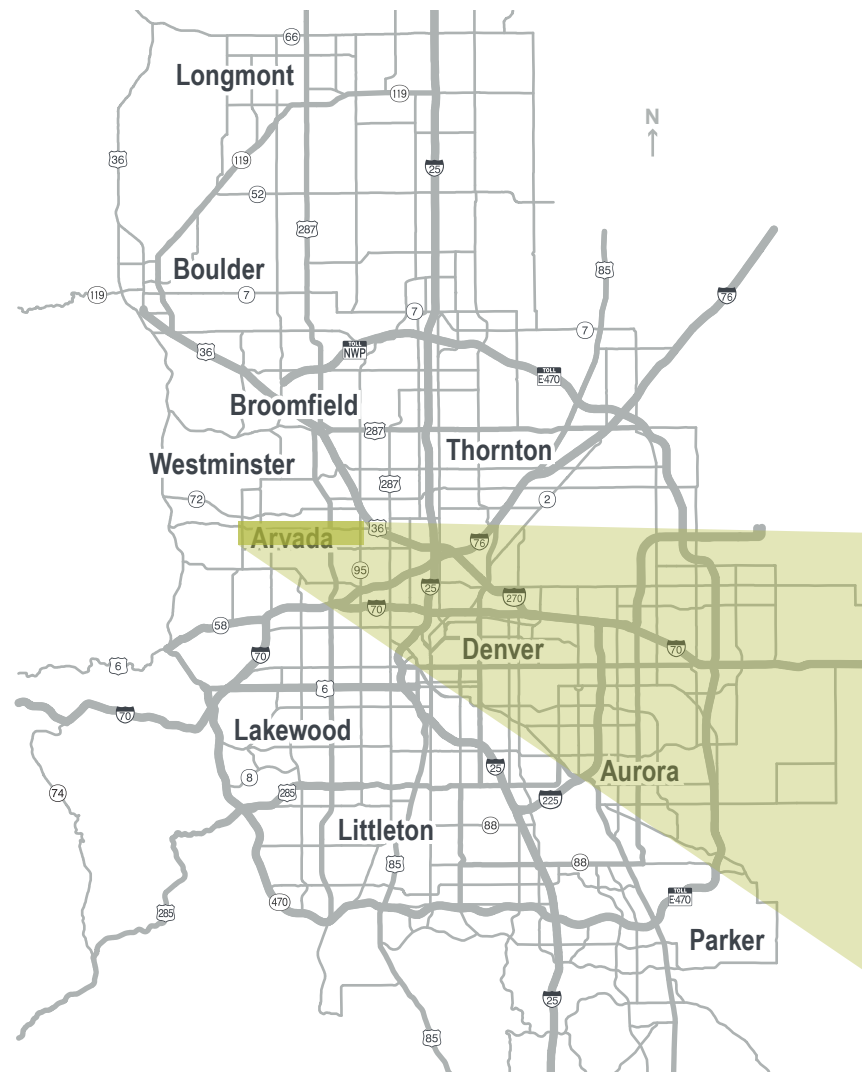


## Federal Funds for Arvada

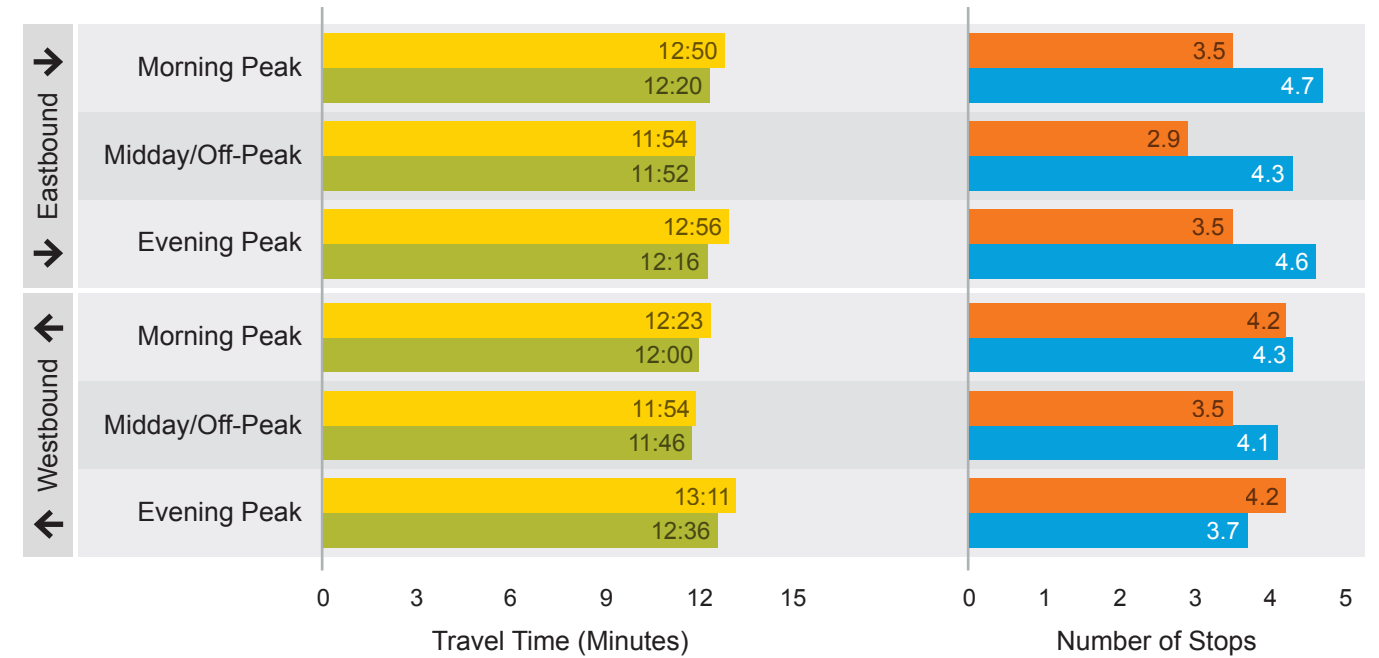
Development of the signal timing and coordination plans for this corridor was completed using the services of a consultant: Muller Engineering.

## Project Achievements

Performance Measures	Daily Reduction
Vehicle travel time	92 hours
Fuel consumption	73 gallons
Time and fuel costs	\$2,200 savings daily (\$550,000 annually)
Greenhouse gas emissions	1,418 pounds
Emissions of six EPA-regulated pollutants	17 pounds



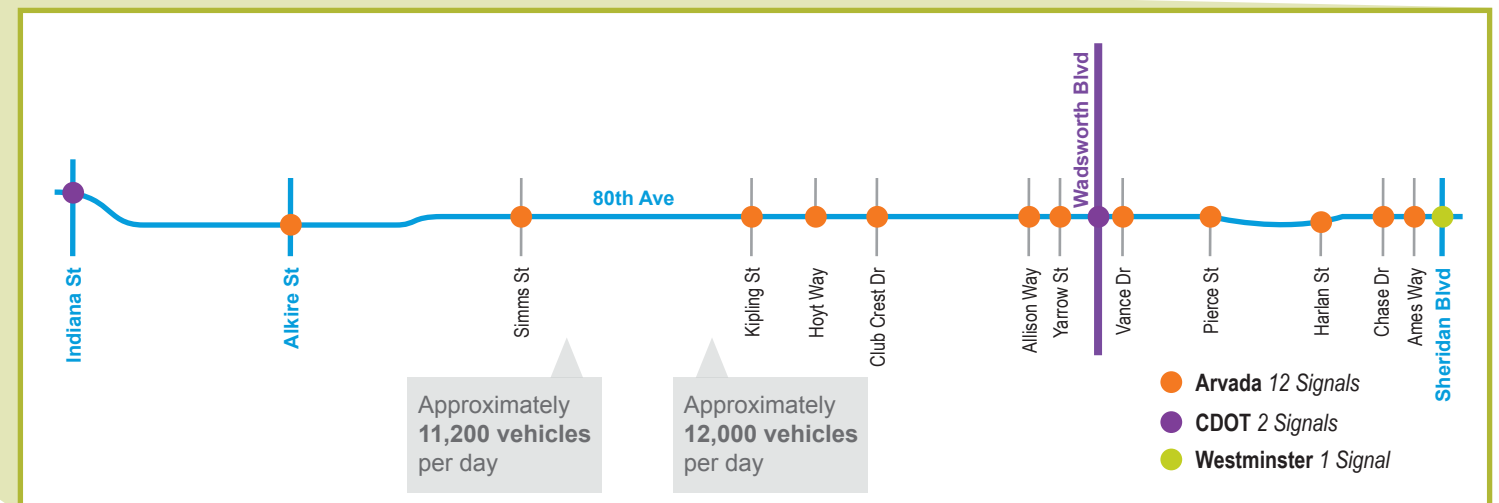
## Overall Improvements



Average Travel Time Before Retiming  
 Average Travel Time After Retiming  
 Average Number of Stops Across Corridor Before Retiming (Less Idling)  
 Average Number of Stops Across Corridor After Retiming (Less Idling)

## Project Scope

80th Avenue (6.0 miles)



## Traffic Signal Coordination

Traffic signal coordination allows traffic to travel along a street without stopping at every light. A major component of any coordinated signal-timing plan is properly sized cycle length shared by each intersection along the corridor. The cycle length is the time required for one sequence of signal displays (green, yellow and red) around an intersection to be lit for each approach. DRCOG's engineers evaluate cycle lengths to strike a balance between intersection capacity and delay for all users. The cycle lengths vary by time of day to account for fluctuating numbers of vehicles, bicyclists and pedestrians.

	Time of day	06:30	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00
1	80th Ave & Indiana St	100-second cycle			90-second cycle						120-second cycle			
2	80th Ave & Alkire St	Free												
3	80th Ave & Simms St	Free												
4	80th Ave & Kipling St	90-second cycle									120-second cycle			
5	80th Ave & Hoyt Way	90-second cycle									60-second cycle			
6	80th Ave & Club Crest Dr	90-second cycle									60-second cycle			
7	80th Ave & Allison Way	120-second cycle			110-second cycle						120-second cycle			
8	80th Ave & Yarrow St	120-second cycle			110-second cycle						120-second cycle			
9	80th Ave & Wadsworth Blvd	120-second cycle			110-second cycle						120-second cycle			
10	80th Ave & Vance Dr	120-second cycle			110-second cycle						120-second cycle			
11	80th Ave & Pierce St	60-second cycle			110-second cycle						60-second cycle			
12	80th Ave & Harlan St	60-second cycle			110-second cycle						60-second cycle			
13	80th Ave & Chase Dr	120-second cycle			100-second cycle						120-second cycle			
14	80th Ave & Ames Way	120-second cycle			100-second cycle						120-second cycle			
15	80th Ave & Sheridan Blvd	120-second cycle			100-second cycle						120-second cycle			

City of Arvada
  CDOT
  City of Westminster

# SIGNAL TIMING PROJECT BRIEF

## 80th Avenue: Indiana Street to Sheridan Boulevard

The Denver Regional Council of Governments (DRCOG) leads multijurisdictional partnerships to achieve optimal signal timing and coordination on area roadways. Traffic signal timing adjustments provide the smoothest possible flow for cars, trucks and buses. At the same time, safety is enhanced for all users, including pedestrians and bicyclists. Signal timing optimization saves drivers time and money, minimizes greenhouse gas and pollutant emissions, and enhances air quality.

May 2016 - T16-10

For more information about signal timing, see: [bit.ly/SignalRed](http://bit.ly/SignalRed)  
 For more information about DRCOG's traffic operations program, see: [bit.ly/TrafficOps](http://bit.ly/TrafficOps)



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