

Federal Boulevard: Hampden Avenue to Bellevue Avenue



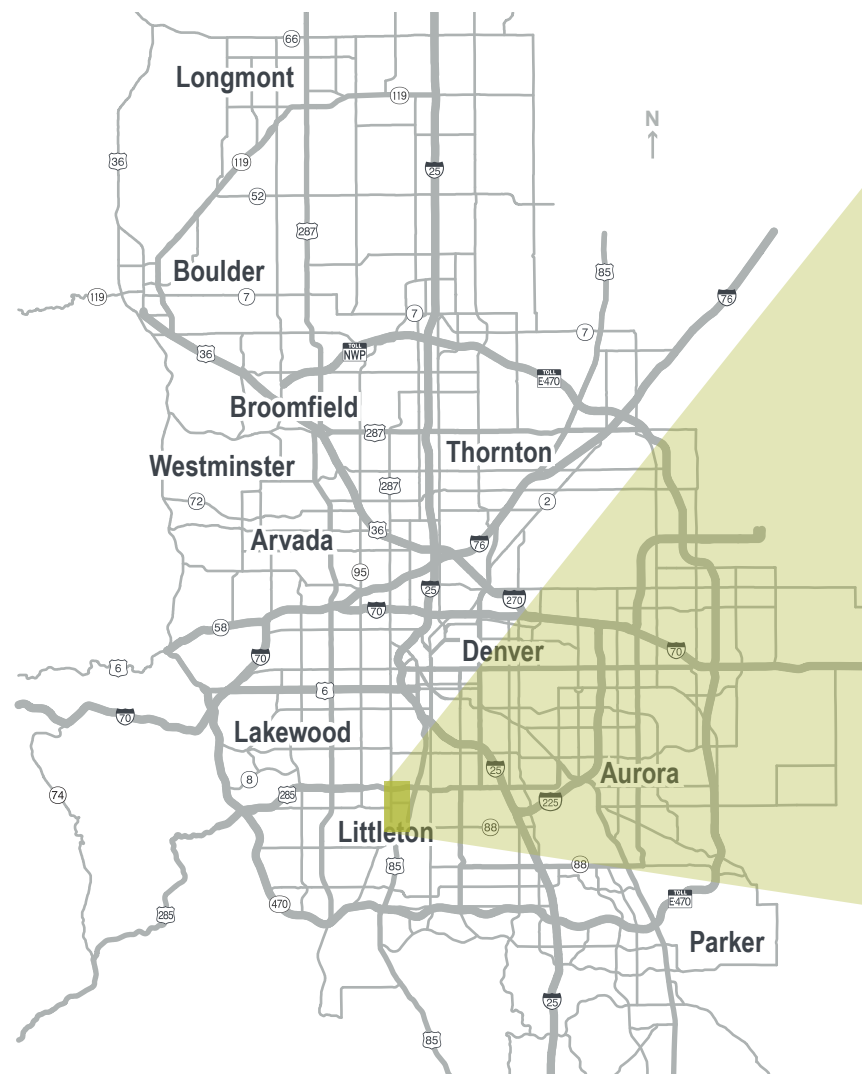
Federal Funds for CDOT

DRCOG allocated \$302,000 in federal funds for equipment upgrades for the Colorado Department of Transportation, resulting in fewer delays caused by signal or sensor malfunctions.

DRCOG engineering staff developed the signal timing and coordination plans in partnership with the project stakeholders.

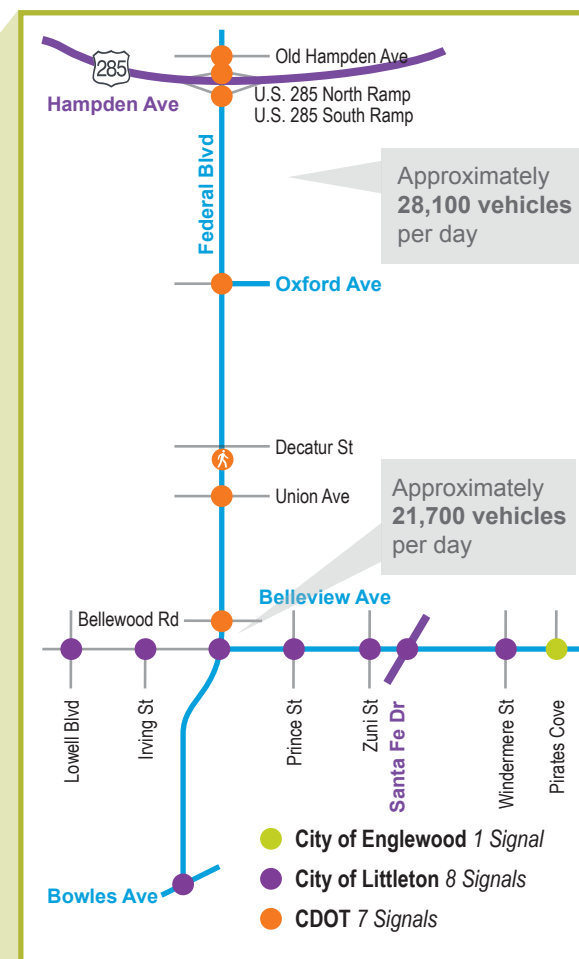
Project Achievements

Performance Measures	Daily Reduction
Vehicle travel time	316 hours
Fuel consumption	245 gallons
Time and fuel costs	\$7,550 savings daily (\$1.89 million annually)
Greenhouse gas emissions	4,703 pounds
Emissions of six EPA-regulated pollutants	51 pounds

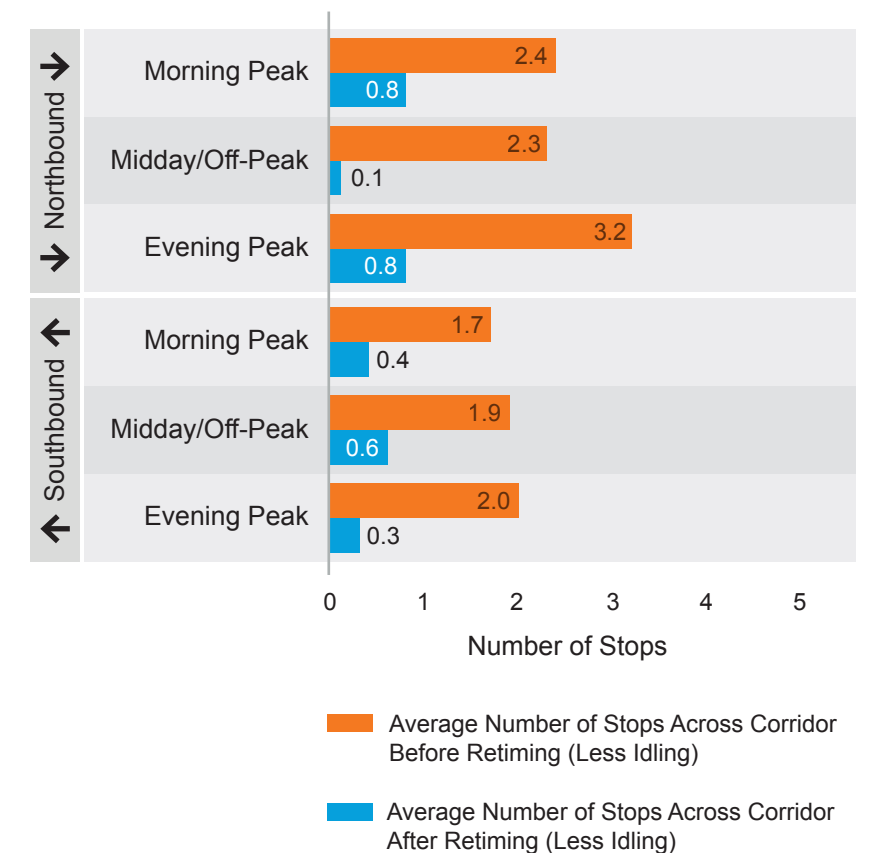
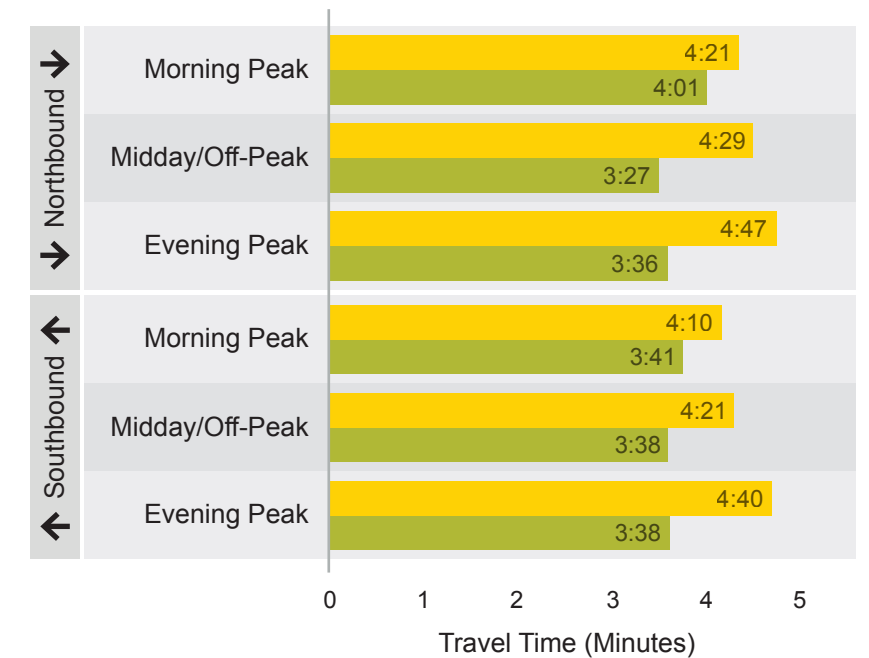


Project Scope

Federal Boulevard (2.0 miles)



Overall Improvements



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	06:00	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:30
1 Federal Blvd & Hampden Ave	100-second cycle										120-second cycle		
2 Federal Blvd & Hampden North Ramp													
3 Federal Blvd & Hampden South Ramp													
4 Federal Blvd & Oxford Ave													
5 Federal Blvd & Pedestrian Signal													
6 Federal Blvd & Union Ave													
7 Federal Blvd & Bellewood Rd													
8 Federal Blvd & Belleview Ave													
9 Belleview Ave & Prince St													
10 Belleview Ave & Zuni St													
11 Belleview Ave & Santa Fe Dr													
12 Belleview Ave & Windermere St													
13 Belleview Ave & Pirates Cove													

CDOT
 City of Littleton
 City of Englewood

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



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SIGNAL TIMING PROJECT BRIEF

Federal Boulevard: Hampden Avenue to Belleview Avenue

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.