

Benefit analysis software for independent signalized intersections

XRoads helps your team quickly perform site-specific comparative economic analysis that can reveal the substantial benefits of customizing interactions between detection and control at signalized intersections. This valuable tool is also designed to deepen understanding of basic and complex traffic principles through interactive experience.



- The benefit calculator’s animated traffic metrics include both traveler delay and economic outputs including:
 - CO2 emission savings
 - Fuel savings
 - User time savings
- The traffic simulation models microscopic traffic interactions based on an intersection model you customize to the satellite map view
- Road Builder facilitates exploring “what if” scenarios, such as “What if we added another lane?”
- The vehicle manager tests performance for a variety of different traffic volumes and patterns
- The learning experience is enhanced by presentation visuals including:
 - Controller status displays
 - Interactive controller diagrams
 - Radar sensor footprints
- The software is pre-loaded with animations that illustrate or quantify the savings associated with:
 - Stop bar detection
 - Long zones over short zones
 - Advance railroad preemption
 - Dynamic dilemma zone protection

Benefit Metrics	Per Vehicle		Per Intersection	
	ORIGINAL	BENEFIT	ORIGINAL	BENEFIT
Intersection Delay	33.5 (sec)	31.0 (sec)	57054.7 (sec)	52719.1 (sec)
Time Savings	2.5 (sec) \$0.021		3516.7 (vehicle-hours)	\$103,601.21
Fuel Savings	0.08 (ft oz) \$0.00		3,059.51 (gallons)	\$10,647.08
CO2 Emissions Savings	5.975 (grams) \$0.00		29,677 (tons)	\$652.90
Total Savings	\$0.02			\$114,901.19

ORIGINAL: XRO
BENEFIT: XRO_BENEFIT

[10] Now we can pause and look at the results. While the savings appear small on a per vehicle basis, they add up on a per intersection basis. And we can annualize the savings by changing the drop down from 'Live' to 'Yearly'.