



CMF / CRF Details

CMF ID: 1993

Modify signal phasing (implement a leading pedestrian interval)

Description:

Prior Condition: Signalized intersection with pedestrian signal heads. Avg ped volume per day ranged from about 100 to 1000 peds.

Category: Intersection traffic control

Study: [*Safety Effectiveness of Leading Pedestrian Intervals Using the Empirical Bayes Method, Fayish and Gross, 2009*](#)

Star Quality Rating:

4 Stars

[\[View score details\]](#)

Crash Modification Factor (CMF)

Value: 0.413

Adjusted Standard Error:

Unadjusted Standard Error: 0.064

Crash Reduction Factor (CRF)

Value: 58.7 (This value indicates a **decrease** in crashes)

Adjusted Standard Error:

Unadjusted Standard Error: 6.4

Applicability

Crash Type:	Vehicle/pedestrian
Crash Severity:	All
Roadway Types:	Principal Arterial Other
Number of Lanes:	4
Road Division Type:	
Speed Limit:	25
Area Type:	Urban
Traffic Volume:	
Time of Day:	All

If countermeasure is intersection-based

Intersection Type:	Roadway/roadway (not interchange related)
Intersection Geometry:	3-leg,4-leg
Traffic Control:	Signalized
Major Road Traffic Volume:	12000 to 13500 Annual Average Daily Traffic (AADT)
Minor Road Traffic Volume:	

Development Details

Date Range of Data Used:	1989 to 2007
Municipality:	State College
State:	PA
Country:	

Type of Methodology Used:	2
Sample Size Used:	
Before Sample Size Used:	10
After Sample Size Used:	10

Other Details	
Included in Highway Safety Manual?	No
Date Added to Clearinghouse:	Dec-01-2009
Comments:	Pedestrian crossing volumes reached nearly 1,000 pedestrians per hour per crosswalk during peak periods because of class schedules at the university, but pedestrian volumes were much smaller during off-peak times.

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