THE BENEFITS OF EDGELINES AND ENHANCED EDGELINES

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DESIGNING ABOVE THE MINIMUM

http://www.cmfclearinghouse.org

ONLINE RESOURCE

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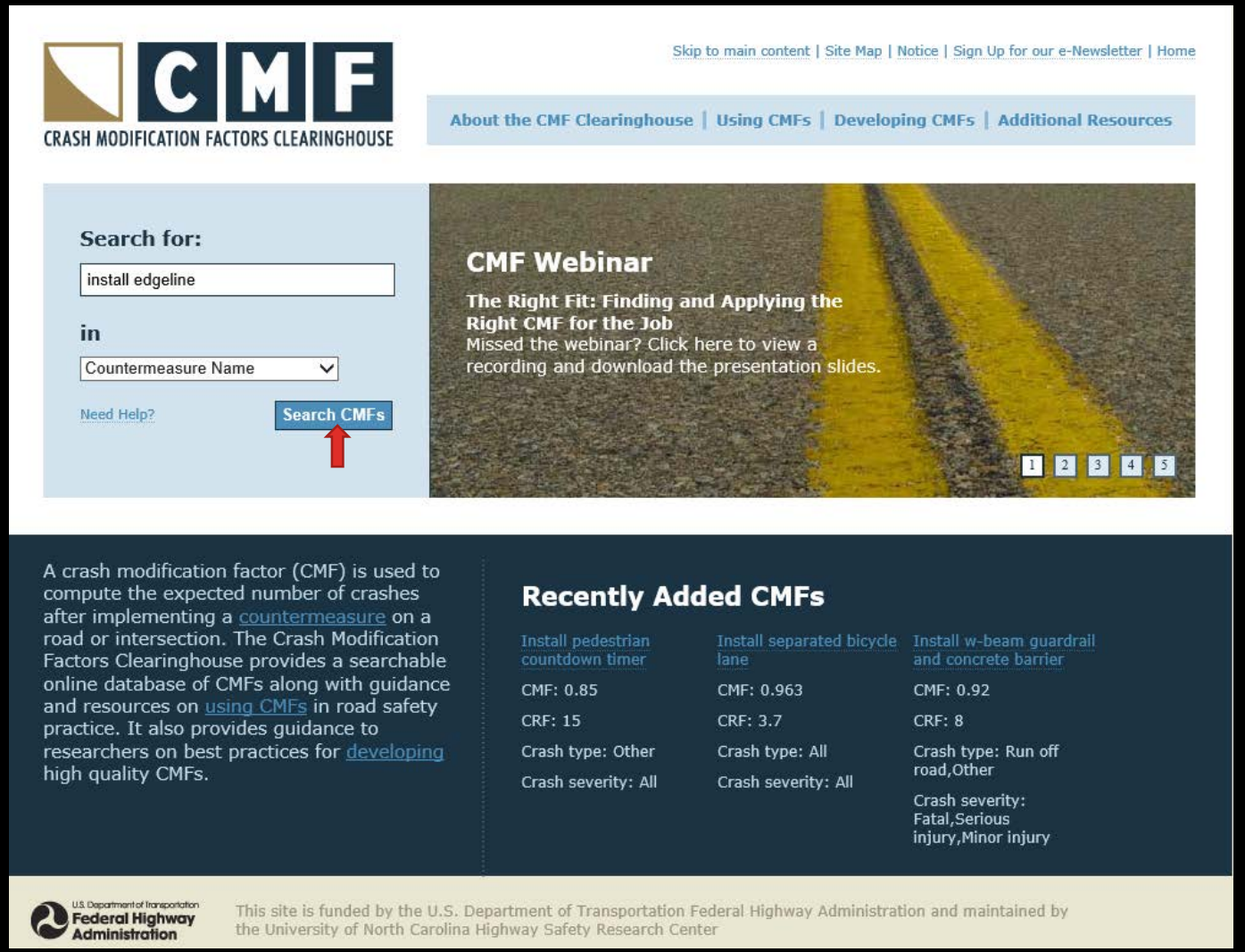


ONLINE RESOURCE

http://www.cmfclearinghouse.org

INSTALL EDGELINES - NARROW, RURAL, TWO-LANE ROADS

Reduces crashes by up to 22%

INSTALL EDGELINES - CURVES

Reduces crashes by up to 33%

INSTALL EDGELINES - TANGENTS

Reduces crashes by up to 14%

INSTALL EDGELINES – CURVES & TANGENTS

Reduces crashes by up to 13%

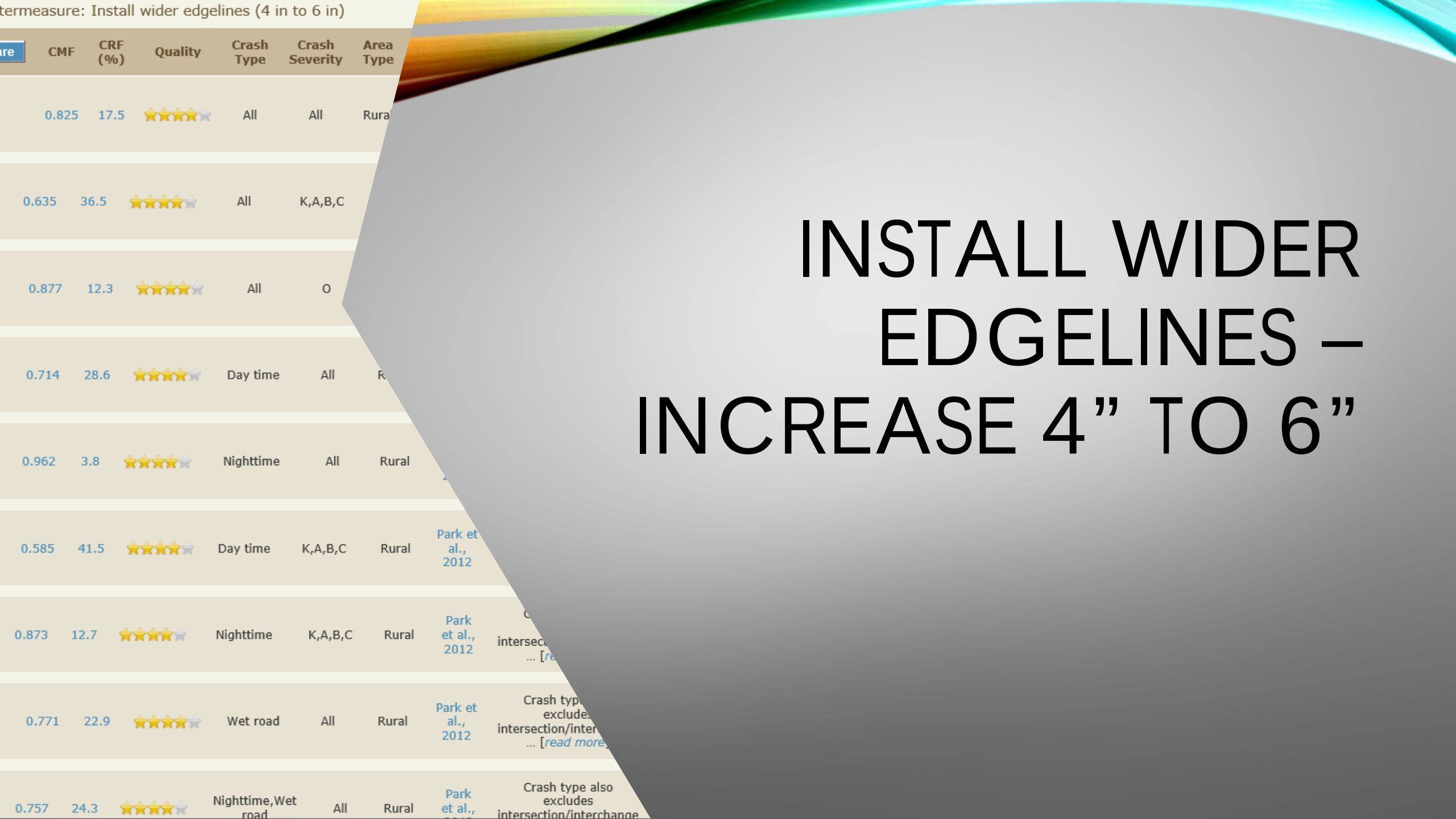
INSTALL EDGELINES & CENTERLINES – HIGHER CRASH LOCATIONS

Reduces crashes by up to 14%

INSTALL EDGELINES & CENTERLINES & POST-MOUNTED DELINEATORS

Reduces crashes by up to 45%

WITH ONCOMING TRAFFIC, THE EDGELINE BECOMES YOUR GUIDE!


termeasure: Install wider edgelines (4 in to 6 in)
CMF
CRF (%)
Quality
Crash Type
Crash Severity
Area Type
0.825 17.5 All All Rural
0.635 36.5 All K,A,B,C
0.877 12.3 All O
0.714 28.6 Day time All
0.962 3.8 Nighttime All Rural
0.585 41.5 Day time K,A,B,C Rural Park et al., 2012
0.873 12.7 Nighttime K,A,B,C Rural Park et al., 2012
0.771 22.9 Wet road All Rural Park et al., 2012
0.757 24.3 Nighttime,Wet road All Rural Park et al.,
Crash type also excludes intersection/interchange
INSTALL WIDER EDGELINES – INCREASE 4” TO 6”

Crash Reductions:

- All Crashes – up to 36%
- Daytime Crashes – up to 41%
- Nighttime Crashes – up to 19%
- Wet Crashes – up to 63%
- Wet Night Crashes – up to 79%
- Single Vehicle – up to 37%

	18.7		Nighttime,Single vehicle	K,A,B,C	Rural	Park et al., 2012	Crash type also excludes intersection/interchange ... [read more]
	.81	19	Fixed object	All	Rural	Park et al., 2012	Crash type also excludes intersection/interchange ... [read more]
	0.806	19.4	All	All	Rural	Park et al., 2012	Crash type also excludes intersection/interchange ... [read more]
	0.804	19.6	All	O	Rural	Park et al., 2012	Crash type also excludes intersection/interchange ... [read more]
	0.812	18.8	Nighttime	All	Rural	Park et al., 2012	Crash type also excludes intersection/interchange ... [read more]
☐	0.77	23	Day time	K,A,B,C	Rural	Park et al., 2012	Crash type also excludes intersection/interchange ... [read more]
☐	0.374	62.6	Wet road	All	Rural	Park et al., 2012	Crash type also excludes intersection/interchange ... [read more]
☐	0.208	79.2	Nighttime,Wet road	All	Rural	Park et al., 2012	Crash type also excludes intersection/interchange ... [read more]
	0.813	18.7	Single vehicle	All	Rural	Park et al., 2012	Crash type also excludes intersection/interchange ... [read more]
		9	Single vehicle,Wet road	All	Rural	Park et al., 2012	Crash type also excludes intersection/interchange ... [read more]
			Nighttime,Single			Park	Crash type also excludes

INSTALL WIDER EDGELINES – INCREASE 4” TO 6”

- Crash frequency analyses for two-lane rural highways: Because of different nature of data from each State, a different statistical analysis approach was employed for each State: an empirical Bayes, before-after analysis of Kansas data, an interrupted time series analysis of Michigan data, and a cross sectional analysis of Illinois data. Although it is well-known that causation is hard to establish based on observational studies, the results from three extensive statistical analyses all point to the same findings. The consistent findings lend support that wider edge line pavement markings on two-lane rural highways lead to lower crash frequencies.

- Crash severity on two-lane rural highways: This innovative analysis approach found positive safety effects for wider edge line pavement markings for two-lane rural highways, supporting the findings from the crash frequency analyses. More specifically, the findings demonstrate a shift from more to less severe crashes for two-lane rural highways with wider edge line pavement markings.

INSTALL WIDER EDGELINES – INCREASE 4” TO 6”

OTHER ENHANCEMENTS

Upgrade Materials

- Replacing Waterborne with Polyurea showed a 36% reduction in nighttime crashes

Go Wet-Reflective

- May reduce wet crashes by up to 32% and provides brighter lines in all conditions

Add Recessing

- Provides the markings with protection from snowplows to increase longevity

COST DATA

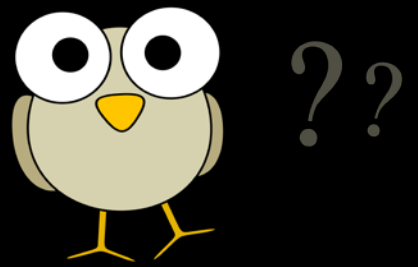
4” Waterborne: approximately $0.10 per foot

May increase or decrease with quantity

Enhancements:

Upgrade to 6” Waterborne:	Upgrade to 4” Polyurea:	Upgrade to 6” Polyurea:	Upgrade to Wet-Reflective:	Upgrade to Recessed:
additional $0.05 per foot	additional $0.55 per foot	additional $0.75 per foot	additional $0.15 per foot	additional $0.40 per foot

QUESTIONS?



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