

# WSDOT's Cable Median Barrier Program

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# Objective of Cable Median Barriers

Reduce fatal & serious injury crashes by targeting high severity cross median crashes.

# Installations

- Program initiated in 2001
- Locations targeted in 2001 are all in place
- 238 miles currently in place
- Additional mileage has been removed as lanes were added to the median side of the highway
- Product Migration
  - Generic (Low Tension)
  - 3 Strand High Tension
  - 4 Strand High Tension ( $\leq 19''$  bottom,  $\geq 35''$  top rope)

# Crash Data – All Median Crashes

	Before	After	Percent Change
Annual median collisions	277	776	+180%
Median collision rate*	8.19	15.61	+91%
Annual serious-injury median collisions	18.6	8.4	-55%
Annual fatal median collisions	9.0	6.5	-28%
Serious-injury median collision rate*	0.55	0.21	-61%
Fatal median collision rate*	0.26	0.13	-52%

\*per 100 million vehicle miles of travel

Overall crashes are up, as the available recovery area has been reduced by the presence of a barrier system. There are more reportable collisions. Targeted high severity collisions are reduced.

# Crash Data – Cross Median Crashes

	Before	After	Percent Change
Annual cross-median collisions	61.8	26.0	-58%
Cross-median collision rate*	1.82	0.64	-65%
Annual serious-injury cross-median collisions	9.4	1.9	-80%
Annual fatal cross-median collisions	5.2	2.2	-58%
Serious-injury cross-median collision rate*	0.28	0.05	-81%
Fatal median cross-collision rate*	0.16	0.05	-66%

\*per 100 million vehicle miles of travel

# Injury Severities with Median Barriers Commonly used in Washington

Barrier Type	Reported Collisions	Not Stated	No Injury	Possible Injury	Evident Injury	Serious Injury	Fatal
Low Tension Cable	945	19 (2.0%)	744 (78.7%)	85 (9.0%)	73 (7.7%)	16 (1.7%)	8 (0.8%)
High Tension 3 Strand	1,596	18 (1.1%)	1,263 (79.1%)	171 (10.7%)	108 (6.8%)	23 (1.4%)	13 (0.8%)
High Tension 4 Strand	179	0	145 (81.0%)	17 (9.5%)	17 (9.5%)	0	0
Beam Guardrail (2002-08)	2,979	59 (2.0%)	1,828 (61.4%)	654 (22.0%)	361 (12.1%)	56 (1.9%)	21 (0.7%)
Concrete Barrier (2002-08)	9,708	183 (1.9%)	5,788 (59.6%)	2,394 (24.7%)	1,155 (11.9%)	148 (1.5%)	40 (0.4%)
<b>Total</b>	<b>15,407</b>	<b>279 (1.8%)</b>	<b>9,768 (63.4%)</b>	<b>3,321 (21.6%)</b>	<b>1,714 (11.1%)</b>	<b>243 (1.6%)</b>	<b>82 (0.5%)</b>

# Median Barrier Crash Rates for I-5 at Marysville

Rates are crashes per 100 million vehicle miles of travel

All Median Collisions	All	Non Injury	Serious Injury	Fatal
No Barrier	0.070	0.029	0.547	0.273
Generic Cable Barrier	0.131	0.094	0.217	0.347
Generic & High Tension 3 Strand Cable	0.108	0.090	0.124	0.000*
Concrete & High Tension 3 Strand Cable	0.083	0.059	0.000	0.236
Cross Median Collisions	All	Non Injury	Serious Injury	Fatal
No Barrier	0.024	0.006	0.364	0.091
Generic Cable Barrier	0.010	0.003	0.087	0.217
Generic & High Tension 3 Strand Cable	0.000	0.000	0.000	0.000*
Concrete & High Tension 3 Strand Cable	0.000	0.000	0.000	0.000

\*Cross median fatal crash during barrier installation contract

# Questions?

For additional information on WSDOT's Cable Median Barrier program, please contact:

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