	per 100,000,000 VMT:		
	Fatality	Injury	Property Damage
Base	1.3026	58.6189	212.3306
With Project	0.7586	34.1360	123.6480

	CMF	Applicable Crashes			
Clear Zone	0.78	All	HSM	5 Star	http://www.cmfclearinghouse.org/detail.cfm?facid=35
Lane Width	0.86	Proportioned to All	HSM		Calculation
Shldr width/type	0.87	Proportioned to All	HSM		Calculation
Combined CMF	0.58233735				

$$CMF_{2r} = (CMF_{wra} \times CMF_{tra} - 1.0) \times p_{ra} + 1.0$$

AADT is > 2000

$$CMF_{fr} = (CMF_{ra} - 1.0) \times p_{ra} + 1.0$$

	SHOULDERS CMF2r			CRASHES					LANES CMFra		
	CMFwra	CMFtra	CMF2r	Applicable crashes			pra			CMFtr	CMFra
	Table 10-9 - Shoulder Width	Table 10-10 Shoulder Type	Equation 10-12	Run off the road (Single Vehicle)	Head On	All Sideswipes	% of Total	Total Crashes	Lane Width	Equation 10-11	Table 10-8 Lane Width
Before	1.40	1.00	1.70	81	5	23	50%	217	10	1.15	1.30
After	0.87	1.06	1.46						12	1.00	1.00
			0.86							0.87	

Table 10-8. CMF for Lane Width on Roadway Segments (CMF_{ra})

	AADT (vehicles per day)		
Lane Width	**< 400**	**400 to 2000**	**> 2000**
9 ft or less	1.05	$1.05 + 2.81 \times 10^{-4}(AADT - 400)$	1.50
10 ft	1.02	$1.02 + 1.75 \times 10^{-4}(AADT - 400)$	1.30
11 ft	1.01	$1.01 + 2.5 \times 10^{-5}(AADT - 400)$	1.05
12 ft or more	1.00	1.00	1.00

Note: The collision types related to lane width to which this CMF applies include single-vehicle run-off-the-road and multiple-vehicle head-on, opposite-direction sideswipe, and same-direction sideswipe crashes.

Table 10-9. CMF for Shoulder Width on Roadway Segments (CMF_{wra})

	AADT (vehicles per day)		
Shoulder Width	**< 400**	**400 to 2000**	**> 2000**
0 ft	1.10	$1.10 + 2.5 \times 10^{-4}(AADT - 400)$	1.50
2 ft	1.07	$1.07 + 1.43 \times 10^{-4}(AADT - 400)$	1.30
4 ft	1.02	$1.02 + 8.125 \times 10^{-5}(AADT - 400)$	1.15
6 ft	1.00	1.00	1.00
8 ft or more	0.98	$0.98 + 6.875 \times 10^{-5}(AADT - 400)$	0.87

Note: The collision types related to shoulder width to which this CMF applies include single-vehicle run-off the-road and multiple-vehicle head-on, opposite-direction sideswipe, and same-direction sideswipe crashes.

The base condition for shoulder type is paved. Table 10-10 presents
effects of gravel, turf, and composite shoulders as a function of shoulder width.

Table 10-10. Crash Modification Factors for Shoulder Types and Shoulder Widths on Roadway Segments (CMF_{tra})

	Shoulder Width (ft)						
Shoulder Type	**0**	**1**	**2**	**3**	**4**	**6**	**8**
Paved	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Gravel	1.00	1.00	1.01	1.01	1.01	1.02	1.02
Composite	1.00	1.01	1.02	1.02	1.03	1.04	1.06
Turf	1.00	1.01	1.03	1.04	1.05	1.08	1.11

Note: The values for composite shoulders in this table represent a shoulder for which 50 percent of the shoulder width is paved and 50 percent of the shoulder width is turf.

of a roadway segment differ, the CMF are determined