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**PROBLEM STATEMENT:**

Our county leases tractor mowers for summer and fall to mow roadway shoulders, most of which are on gravel roads. Because of debris – such as rocks, flying up from tires and mower – the rear window was taking a beating and visibility would become limited when grass stuck to the rear window.

**SOLUTION:**

Because the mower tractors are leased, the county did not want to invest in attaching anything permanent to the mower tractor to correct this problem. The solution was to design something removable. After several prototypes were developed, the rear window guard provided a sustainable design. Three point pins are used to attach the guard to the tractor mower. The guard stops rocks and other flying debris from hitting the rear window. To clean the rear window guard, the operator just pulls the top pins and pivots the guard down for ease of wiping off grasses with a rag. The guard can be moved from mower tractor to mower tractor because it is held in place with just the point pins. It remains with the county after the leased mower tractor is return to the tractor company at the end of the mowing season.

**LABOR/MATERIALS/COST:**

One person @ \$17 x 5 hours = \$85 Materials Listed above = \$150 Total = \$235

**SAVINGS/BENEFITS TO THE COMMUNITY:**

The savings and benefits from this rear window guard include protecting the rear window from flying rocks and debris; protecting the operator from broken glass, and not having to replace a broken rear window. Time is saved at the end of the shift by just pulling the pins, lowering the guard, wiping off grass, cleaning the rear window, and re-pin. The other benefit is removing the guard at the end of the lease when the tractor mower is returned and the guard can be used again with another tractor mower.

