

How to reclaim gravel shoulders

...in a way that lets you do it at a reasonable cost

At a National Association of Counties' convention 3 years ago, Jackson County's road commissioners saw the All-American Disk, a new shoulder reclaimer manufactured by Doyle, Inc. They were so impressed they purchased three of the units. What impressed them so much?

According to Bob Zenz, one of Jackson County's commissioners, not only could the disk reclaim gravel, it also made an easier job of restoring shoulder width and drainage. "The disk knocks down the berm," Zenz says, "and puts

the gravel back in reach." With the shoulder reclaimer, road maintenance crews can economically salvage the displaced gravel and swiftly rebuild shoulders — important capabilities for Jackson County, which, like most counties, has many gravel shoulders suffering from displaced gravel.

The problems

Road maintenance often creates a dam — like a ridge of gravel at the outer edge of the shoulder that hampers drainage. Vegetation further compounds drainage problems. On asphalt

roads, displaced gravel leaves a canal between the pavement and shoulder, creating not only a drainage problem, but also a pavement drop-off — a serious hazard for motorists.

To correct these problems, the road must be graded several times in order to break-up clumps of sod and reshape the shoulder. This procedure is time-consuming and wasteful, requiring numerous yards of new aggregate to replace the gravel lost during routine maintenance. The costs, in terms of time and materials, quickly add up.

A low-cost answer

The shoulder reclaimer's ability to recycle gravel helps down those costs. The 6-ft. disk, resembling a harrow, is attached behind a tractor. The disk is angled, so the tractor remains partially on the road. As the disk grinds the soil and weeds, it throws the displaced gravel and fines a couple of feet back up the slope of the shoulder, eliminating the ridges as ruts are backfilled. Anywhere from 50 to 100 percent of gravel can be reclaimed per mile.

The Minnesota Department of Transportation tested the disk in one of its districts, and the results were impressive. In one particular operation, the shoulder reclaimer saved MnDOT over \$2,400/mi. compared with the previous method, while accomplishing the same result. In another section, the disk reclaimed one lane mi. of shoulders in a day, an operation that previously took 3 days.

Doyle, Inc. recommends reclaiming shoulders in the fall or spring. The ground is moist, and gravel shoulders on asphalt roads can be compacted properly, and the dry, rotten vegetation can easily be tilled. An added benefit of the mulch action of the disk is that vegetation is discouraged from growing back, reducing the need for mowing or for using herbicides — alleviating the public's concerns about damage to the environment. □

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