

Preliminary Damage Assessment tips for road damage

Items for all teams to remember

- Distance between telephone poles is approximately 300 feet
- 1/10th of a mile is 528 feet
- An average person's step is 3 feet in case you want to step an area off
- County roads are typically 24 feet wide
- Township roads are typically 18 feet wide
- **Federal Aid System (FAS) roads or sometimes referred to as major collectors in a county are not eligible for this program. Do not count this damage in your totals. Ensure the county is not showing you such roads by asking them if any damage is on FAS roads. They should be referred to the State DOT for FAS road damage.**
- Gravel wash spots get 3 inches of gravel in a county and 2 inches of gravel in a township placed back on them if all the gravel is washed off at the site. (see examples below on how to figure)
- If the gravel is washed off a county road and the road bed (dirt) is showing, then they may need what is referred to as 6 & 3 or (six inches of rock with 3 inches of gravel on top of the rock). You most likely do not need 6 inches of rock over the entire area. You will have to see if the road bed is showing over the entire surface or just a portion of it. Take this into account in your estimate. Townships receive 6 inches of rock and two inches of gravel.
- Take notes on sites and try to have dollar amount associated with each site. We should be able to have a total for each township when we get done with it or a good estimate.
- A standard dump truck hold 12 cubic yards of material or 16 tons
- A pot belly semi truck holds 20 cubic yards of material or 26 tons
- There is approximately 1.3 tons in a cubic yard
- Ask emergency manager if any towns in the county had any damage to roads or infrastructure

Formula for figuring gravel wash on roads is length times width times height divide by 27 to get a cubic yard total. Then take that total times the dollar amount of gravel or rock that needs to be placed on the road.

Example: **County roads:** a county road with 100 feet that has gravel washed off the surface would be figured as follows: $100' \times 24' \times .25$ (3 inches of gravel) / 27 = 22.22 cubic yards times \$13 cubic yard for gravel.

Township roads: a township road with 100 feet that has gravel washed off the surface would be figured as follows: $100' \times 18' \times .16$ (2 inches of gravel) / 27 = 10.66 cubic yards times \$13 cubic yard for gravel.

Below are different scenarios for ease of estimating when looking at the sites:

County roads (24 feet wide)

100 feet of gravel wash (3 inches)	\$289.00 or \$13 cubic yard for gravel
100 feet of 6 & 3	\$1,155.55 or \$13 cy for gravel and \$19.50 cy for rock
50 feet of six inches of rock	\$433.33 or \$19.50 cy for rock

Township roads (18 feet wide)

100 feet of gravel wash (2 inches)	\$139.00
100 feet of 6 & 2	\$788.66 per foot (Furnish & Install)
50 feet of six inches of rock	\$325.00

General

100 feet of ditch cleaning/Gravel Wash	\$30.00 or .30 cents per linear feet
Corn Stalk Removal	\$8 per cubic yard
Metal culverts	
12"	\$17 per foot (Furnish & Install)
18"	\$23 per foot (Furnish & Install)
24"	\$30 per foot (Furnish & Install)
30"	\$36 per foot (Furnish & Install)
36"	\$41 per foot (Furnish & Install)
48"	\$62 per foot (Furnish & Install)
60"	\$76 per foot (Furnish & Install)
72"	\$115 per foot (Furnish & Install)
One 12 cy dump truck of embankment	\$72.00 or \$6 per cubic yard
Concrete Box Culverts	\$35.00 per square foot
Rip rap (dumped)	\$16.00 per cubic yard
Rip rap (placed)	\$35.00 per cubic yard