

Iowa's crushed rock roads

THOUGH most rural Iowans believe they or their neighbors live near gravel roads, only 35 percent actually do.

The surfaces of most of Iowa's granular surface roads are crushed limestone or dolomite, not gravel. Though some counties in Iowa use locally available gravel mixes, most of Iowa's roads are surfaced with crushed rock from local quarries.

Choosing suitable crushed rock is vital to ensuring a durable and economical unpaved road. When choosing crushed rock, consider quality and size.

Quality and size

Crushed rock is quality graded based on how it measures up to standards for durability. Tests consist of subjecting the crushed particles to impact, grinding them with steel spheres, and subjecting the material to alternately freezing and thawing conditions. These tests determine how well the crushed rock resists change in gradation from traffic and weather conditions.

As described in Iowa Department of Transportation (Iowa DOT) specifications, Class A crushed rock provides the highest quality, but Class B and even Class D can also be used for surfacing.

Iowa DOT specifications recommend 3/4-inch top size for crushed rock used for surfacing Iowa's roads; however, variation in gradation is allowed. Many counties prefer to use a smaller top size, such as 5/8 inch,

because finer gradations have been found to develop thicker crusts and require less grading. The cost of finer gradation material may be higher than coarser mixes, although the tradeoff is better performance and less maintenance.

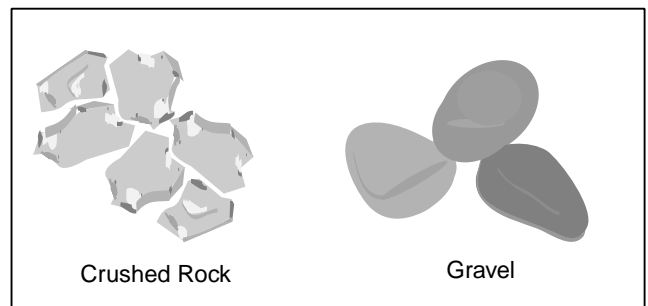
With any gradation, controlling the amount of fine particles is important to reduce dust and maintenance.

An ounce of prevention

Using durable and correctly sized crushed rock can help local governments save on road maintenance costs. Using higher quality crushed rock results in less drainage damage, thereby requiring less frequent road maintenance. Specifying quality crushed rock that best meets the local needs and providing timely maintenance will result in acceptable transportation for the many Iowa citizens who live near and travel on crushed rock roads.

For Iowa DOT specifications online go to www.dot.state.ia.us/specifications/index.htm. •

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Interested parties must sign up by May 15, 2001.

MOTOR GRADER operators, are you ready to tackle the potholes, ruts, and washboards left from this year's hard winter? If you think your skills could use a little fine-tuning, then you'll want to attend one of this year's Motor Grader Operator (MoGO) workshops.

The Center for Transportation Research and Education (CTRE) is beginning to schedule this year's MoGO workshops. Interested parties must

sign up by May 15, 2001. These workshops are helpful to both beginning motor grader operators and experienced operators who would like some review.

About the MoGO workshop, Kenny Jagerson, a Boone County medium equipment operator, says, "For a newcomer, like myself, it was very informative. It gave me a good overview of the work and techniques involved in motor grading."

A safety and liability checklist for local transportation agencies



If you can answer “yes” to the following questions, your roads will be safer for users, and your agency will be in a good position to defend itself against tort liability.

Training

Do all employees receive proper training for the work they do and the equipment they use?

Are employees trained to use reasonable care in performing their duties?

Are employees trained to report hazardous conditions and how to act on them?

Signing and marking

Is an up-to-date copy of the *Manual of Uniform Traffic Control Devices* (MUTCD) available for staff reference?

Are employees familiar with the MUTCD, and are traffic signs and markings adequate and properly installed?

Do we have up-to-date inventory of traffic signs, signals, and markings to assist in compliance with MUTCD requirements?

Do we have a policy for periodically inspecting signs, signals, and markings, and a system for reporting and correcting problems?

Are curves and other road hazards posted with proper warning signs and advisory speeds based on the MUTCD recommendations?

Are all bridges properly posted for weight restrictions and clearances?

Are all roadway railroad crossings properly signed and marked?

Do we properly sign and delineate work zones in accordance with Part 6 of the MUTCD?

Roads, culverts, and bridges

Do we have an up-to-date inventory of roads, culverts, and bridges, and a plan to address deficiencies?

Are all roads and streets properly classified and signed? Were proper procedures followed for declaring them “minimum or limited maintenance”?

Do we have information on file about our road and street rights-of-way?

Do we keep good records on highway activities, including road conditions, crashes, and maintenance work?

Have we adopted minimum standards for design, construction, operations, and maintenance? Are programs in place to implement these standards?

Administrative issues

Have we adopted procedures for receiving complaints, responding to them, and recording all actions?

Is our equipment in good repair, and are employees instructed to report faulty equipment immediately?

Do we have a policy for snow and ice control? Is staff familiar with that policy?

Thanks to the Vermont Local Roads News, whose liability checklist served as the basis for this article. •

Day one is classroom instruction that helps operators learn more about how best to operate their equipment. During this instruction, videotape and slide shows are presented. No written work or tests are required. Day two is an optional field day. Instructors divide participants into groups and travel to local sites. At these sites, the motor grader operators can discuss specific problems they encounter while grading.

Scheduling for MoGO training workshops is based on interest. The number of operators interested determines when and where the workshops are held.

If you are interested in signing up for the 2001 MoGO training, contact Sharon Prochnow at CTRE, 515-294-8103, prochnow@iastate.edu. •