

Common aggregate types in the state and what to look for at the pit or quarry

See related story on page 3: Quick checks for aggregate quality.

Limestone, "lime rock" Eastern, southern, southwestern, and western Wisconsin

Look at the quarry face. Is it breaking down on its own? This indicates less stable, weaker rock. How thick are the layers? Very thin layers are usually shale which is undesirable. Is it highly fractured (vertical and horizontal cracks)? This, too, indicates weaker rock. The ideal face looks massive; stands hard and firm. Check for chert in the rock. Once exposed, chert—lighter, whitish lumps with very fine grain—tends to disintegrate. Less is better. What is the amount of fines in the rock? Lower grade limestone tends to have too many fines.

Disintegrated or "rotten" granite Central Wisconsin

Not the best material but widely used, according to Pfister How broken down is it? Are the pieces large enough to make good aggregate? The larger pieces should be at least the size of marbles. Can you break it up by hand? In use, rotten granite continues to break down. What is your past experience with the source? Is gradation even (a mixture of fine to coarse particles)? Look for coarser, larger individual crystals in rock pieces.

Quartzite, granite, crushed basalt, "trap rock" North central and northwestern Wisconsin with local occurrences in other areas

These igneous/ metamorphic rocks are hard and durable but asphalt tends to strip off and

leave aggregates exposed. It is difficult and expensive to crush. Check a sample that's been crushed. Most pieces should be blocky or irregularly shaped. It should not have too many flat, elongated splinters. Check for fines. All of these materials will probably be deficient, i.e. will provide good drainage but make it hard to obtain stability. Add sand and a little silt clay for binder.

Glacial gravels, "pit run", "bank run" North, central and southeastern Wisconsin

Look for stones larger than your desired final size because you must crush about half of them. Examine gradation. You want a good range of larger pieces, smaller pieces, and sand with just a hint of fine material. A dormant pit looks stonier than it is. Judge the quality from a fresh face.

How clean or dirty is it? Collect a handful of damp gravel and squeeze it. Good pit run gravel will leave your hand just slightly discolored. Gravel with too many fines will appear sticky and will leave your hand noticeably dirty. Look for clay balls or lumps. Gravel with more clay is less desirable. Are there many pieces of sandstone or chert? Too much means poorer quality. Sandstone breaks down physically and chert breaks down chemically. (This problem is especially common in the northern quarter of the state.)



Please call or write us with the correct information

Address incorrect?

Four empty rectangular boxes for address correction.

Route To

Do not use for return mail

Postage and permit information box with fields for 'Nonprofit Organization', 'U.S. Postage', 'PAID', 'Madison, Wisconsin', and 'Permit No. 658'.

TRANSPORTATION Information Center — LTAP University of Wisconsin—Madison 432 North Lake Street Madison, WI 53706

