

Improving a local road? Check standards

Most people are aware that state or federally funded improvements to local roads have alignment, width, slope and grading standards. But, you may be surprised to learn that state standards also apply even when the funding is entirely local. Codes, TRANS 204 (towns) and TRANS 205 (counties), are intended to ensure uniformity in town roads and county highways.

"It's a legal requirement, although there can be some ambiguity as to when you have to follow the standards," says Kim Johnson, President, KJohnson Engineers. She is the local program management consultant for WisDOT District #1.

For a simple resurfacing project, you can follow the existing pavement characteristics. That is relatively easy to do for lane or bridge widths. However, side slope changes may need help from an engineer, or an exemption from WisDOT. Doing cold, in-place recycling, for example, can raise the pavement 6-8 inches which can mean a fairly significant change to the shoulder and side slopes.

"Slopes are not black and white," says Johnson. "They are a function of topography, past history, and judgment. Plenty of departments do them by eyeball. The problems occur when they have done a recent improvement and then there is a crash." To protect yourself and ensure that you are in conformance with the laws and requirements, it's a good idea to involve an engineer, especially when dealing with slopes and grading.

Projects built with Local Roads Improvement Program (LRIP) funds must follow codes in TRANS 204, TRANS 205 and Chapter 11-20-01 of the *WisDOT Facilities Development Manual* (for cities and villages) says Scott Bush, LRIP Unit Leader. "The standards for roadway widths and alignment are based on Average Daily Traffic (ADT) counts and design speed," he says. "Last year unfortunately, two communities with LRIP projects didn't meet the standards and didn't receive an exception. They had to reimburse the department for the LRIP funds programmed on these projects."

With the next programming cycle about to begin, LRIP staff are working hard to remind local officials about the standards and exception process. "We encourage them to look at the issues early in the project scoping phase so it doesn't come as a surprise as decisions are made," says Bush.

Standards, alternatives, and other considerations

Town roadway standards in the administrative code vary, depending on type of improvement, ADT and "design speed" (defined as *the maximum safe speed that can be maintained over a specified section of a highway when conditions are so favorable that the design features of the highway govern.*) So, for example, when resurfacing a town road with 250-400

ADT, the roadway must be at least 24 feet wide, including a 20 foot traveled way and two 2-foot shoulders, and the alignment must meet a 40 mph design speed. Roads with greater ADT must have wider pavements and shoulders, and the alignment must meet a higher design speed. Standards for county highways are a bit more varied and complex.

In some situations it may not be practical to meet the statutory design standards. In that case, local officials may request an exception from the WisDOT District Director "in special cases ... in which deviation is not contrary to the public interest and safety." (TRANS 204)

When planning an improvement, it's also important to take other road users into consideration, such as bicyclists, snowmobilers and ATV riders. They are not included in the standards, but may be using the road anyway. A couple feet of paved shoulder can significantly improve safety for bicyclists and drivers sharing a road, for example.

The main thing is to "make sure your bases are covered," when you resurface or reconstruct a road by being aware of the standards and fulfilling your responsibilities under them, says Johnson.

TRANS 204 & 205 are on-line at <http://www.dot.wisconsin.gov> under Transportation Rules, and "Roads and Highways." You can also consult with your county highway commissioner or state DOT district office. For information about the LRIP program contact your county highway commissioner.

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