

## Sidewalk Replacement Protocol

The following guidelines are used by City staff to evaluate sidewalks within the public right-of-way for replacement:

- The sidewalk inspector looks at the alignment of the sidewalks – most notably for tripping hazards. The American Disabilities Act (ADA) states that anything greater than ½ inch is considered a tripping hazard.
- If the sidewalk is cracked it can be reasonably assumed the cracking will continue. The cracking, in most cases, will lead to pop-outs. When the cracks occur close together, the piece of sidewalk between the cracks will pop out. The pop outs happen when secondary cracks occur or the cracking is near the joints. Any crack that is separated or deflected more than ½ inch will be marked for replacement. Any sidewalk panel with multiple cracking (spider cracking) that shows separation or movement will also be marked for replacement.
- Spalling and flaking surfaces that are depressed ½ inch or greater and covers 1/3 of the total concrete panel will be marked for replacement. Surfaces left from spalling and flaking are extremely rough, trap water and may cause further damage to the concrete along with causing icy patches in the winter months.
- Excessive joint width is also a problem. Heels and toes can get caught in the joint causing a person to trip. Any joint separated more than ½ inch without expansion material will be marked for replacement. Any joint that is differentiated from any adjacent concrete ½ inch or greater will also be marked for replacement.
- Sidewalks usually slope towards the streets for drainage purposes. Sidewalks sloped in any direction more than ½ inch per lineal foot, perpendicular to all pedestrian traffic shall be marked for replacement.
- Trees causing sidewalk or street hazards and irregularities will be marked for further inspection. The City of Winona Engineering Department personnel and the City Forester will analyze the tree. All measures to save the tree will be taken. At that time the tree will be determined whether to remove or save the tree. The general health, type, boulevard width, street, gutter and sidewalk disruption will all be factored in the decision to remove or save the tree causing the hazard. Trees determined to be removed or saved will be at the City of Winona's discretion. Trees that are removed in conjunction with the sidewalk project may or may not be replaced depending on the Forester's recommendation. Any trees and stumps being removed within the boulevard will be at the expense of the City of Winona.

## **Approved Sidewalk Repair Methods**

All replacement/repairs to sidewalk and driveway approaches by the property owner or private contractor must first obtain a concrete permit from the City of Winona. If no concrete permit is drawn, the property owner and/or contractor are subject to penalty under law.

### Tripping Hazards ½ -Inch or Greater; Options

- Replacement, or
- Any tripping hazard at a maximum of  $\frac{3}{4}$  of an inch at an expansion or construction joint may be mechanically ground off to eliminate the tripping hazard. Grinding off of any hazard will be accepted as long as the slope is not greater than  $\frac{1}{2}$  inch per lineal foot.
- Any sidewalk panel that has sunk without any cracking, creating a tripping hazard of  $\frac{1}{2}$  inch or greater may be mud jacked to eliminate the hazard. Mud jacking will only be allowed as long as the slabs are jacked with a cementitious material.

### Spalled or Flaked Surfaces; Options

- Replacement, or
- Spalled and flaked surfaces may be filled with a grout/cementitious material. It must be made sure that the existing concrete has been properly cleaned and all loose material removed before repair. Any areas that are repaired may not cause any tripping hazards or uneven walking surfaces. The surface must be troweled and feathered into the existing surface.