

## **603.00 PCC PAVEMENT PATCHING**

### **603.10 Full Depth PCC Patches**

The plans show the details for full depth patches for PCC pavement or resurfaced PCC pavement. Each of these details identify the required depth of concrete for the patch. There are six pages of details that describe pavement repairs that will not receive an overlay and four pages of details that describe pavement repairs that will receive an overlay. However, only those details that are applicable are included in any set of plans. In general, if the length of the repair is 4' to 9', then it is considered "Joint Repair." If the repair is over 9', then it is called "Pavement (Panel) Repair."

The transverse and longitudinal faces of the pavement around the repair receive different treatments. The surface in the transverse (width of pavement) direction will either receive dowel bars or have the surface beveled to wedge the patch so it will not settle below the existing roadway surface. The longitudinal surface will be vertical and may have tie bars (see plans for details).

The details also show how to remove the pavement. The detail for beveling the transverse ledge includes both a full depth saw cut and a 2-inch + ¼ inch deep saw cut. The full depth saw cut is usually performed with a wheel saw. These saw cuts are intended to sever the pavement totally so the existing pavement can be completely removed. The breakout area between the full depth cut and the 2-inch depth cut should create a beveled ledge that will wedge the patch in place and prevent it from slipping below the roadway surface.

### **603.20 SAW CUTS IN FULL DEPTH PCC PATCHES**

Some contractors have delayed saw cuts for joints in full depth PCC patches until after minimum 5-hour cure period (on two-lane roadways). Due to rapid setting concrete used for these patches, random cracks often appear when joints are not sawn quick enough. Any joints in full-depth patches shall be sawn as soon as possible as long as raveling of saw cut edges does not happen. This early sawing will require temporary removal and replacement of required insulation boards in cold weather.

Any random cracks that appear due to a delay of the saw cut operation shall be repaired by the contractor. Repair will consist of routing random cracks with a crack saw and sealing with hot pour sealant. These repairs will be at the expense of the contractor.

#### **Low Strength Deductions**

Materials and Research will make deductions for concrete pavement because they establish the strength --- from cores which they have taken --- used to determine the basis of payment.

Payment for PR concrete, unlike pavement, is based upon cylinder strengths rather than from core strengths. Accordingly, the Project Manager should make the deduction when PR concrete for patching does not make the required strength. The deduction should be based on the 24-hour break strength of a cylinder using the deduction factors shown in Table 603.02.

Materials and Research will not make a deduction for PR concrete even if you submit a cylinder strength report indicating the low strength.

## **CHAPTER NOTES:**