

## Suggested Field Considerations

The following field considerations are a guide to the important aspects of performing a crack sealing or crack filling project. As thoroughly as possible, these considerations should be determined before, during, and after construction. Staff required for this work will vary by job type and size. Some topics may need attention from several staff members. The intention is not to form a report, but to bring attention to important aspects and components of the project process.

Note that some specifications described in the following content may not be the same as the specifications followed by your agency. Always check with your State agency's standards and specifications when using these guidelines.

### Sections

- **Preliminary Considerations**
- **Pre-seal Inspection Considerations**
- **Equipment Inspection and Considerations**

### Preliminary Considerations

#### **Project Review**

- Is the project a good candidate for crack sealing or filling?
- What type of cracking exists? How severe is it? How much is there?
- Are there base failures along the project?
- How much bleeding or flushing exists?
- Is the pavement raveling or oxidized?
- What is the traffic level?
- Is the base sound and well drained?
- Would a membrane (SAM, SAMI) treatment be a better solution?
- Review project for bid/plan quantities.

**Document Review**

- Crack activity (movement) information
- Application specifications
- Construction manual
- Special provisions
- Traffic control plan

**Determining Application Type**

- What type of application is being used?
- Are agency guidelines and requirements being followed?
- Are the cracks being sawed or routed?
- Is a bond beaker being used?

**Material Checks**

- Has a crack survey been done?
- Has the amount of filler/sealer material required been calculated for the number and length of cracks being treated?
- Has the sealer or filler been produced by an approved source (if required)?
- What is the application temperature and the safe heating temperature?
- What special handling requirements are needed: heating rate, allowable storage time at high temperatures, cold application?
- Has the sealer or filler to be used been sampled and submitted for testing?
- Is a blotter coat required? Is clean, dry sand available?

**Pre-seal Inspection Considerations**

**Surface Preparation**

- Do the cracks need to be sawed or routed?
- Are secondary cracks to be sawed or routed?
- Have the cracks been cleaned?
- Have oily residues been scrubbed from the pavement?

— Has the surface been cleaned, dried, and broomed?

**Weather Requirements**

— Have air and surface temperatures been checked at the coolest location on the project?

— Do air and surface temperatures meet agency and sealant/filler manufacturer requirements?

— Application should not begin if rain is likely.

— Application should not begin if freezing temperatures are expected.

**Traffic Control**

— The signs and devices used match the traffic control plan.

— The work zone complies with the agency's traffic control policies.

— Flaggers do not hold the traffic for extended periods of time.

— Unsafe conditions, if any, are reported to a supervisor.

— Signs are removed or covered when they no longer apply.

**Equipment Inspection and Considerations**

**Sawing/Routing Unit**

— Is a saw or router to be used?

— Is the unit fully functional?

— Are the cutting bits sharp to avoid spalling or cracking?

— Are the cutting bits the correct size?

— Is all equipment free of leaks (hydraulic oil, diesel, motor oil, etc.)?

**Sealing Unit**

— Is the sealing unit functional?

— Are the moisture and oil filters on the compressor clean and functioning?

— Does the unit have temperature control (for hot applied sealants)? Is the temperature controller working properly and is the measuring device calibrated?

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- Does the sealing unit provide adequate pressure to deliver material to the crack at an appropriate rate?
- Is a pour pot being used?
- Is a kettle applicator being used? Is the kettle being kept at least partially full at all times?
- Is the applicator unit re-circulating during idle periods?
- What method is being used to ensure that the crack sealant or filler is flush with the pavement surface?
- Is all equipment free of leaks (hydraulic oil, diesel, motor oil etc.)?