



## A-1

# **SPECIFICATIONS FOR REMOVAL OF DETERIORATED ASPHALT AND REPLACEMENT WITH HOT ASPHALT CONCRETE**

### **GENERAL**

This work shall consist of removing the existing asphaltic concrete surfacing and underlying base material, and replacing the removed surfacing and base with these Special Provisions.

The exact limits of asphaltic concrete surfacing and underlying base material removed during a work period shall be replaced before the time the lane is to be opened to public traffic.

### **WEATHER**

Asphalt concrete shall not be placed on any wet surface, when the temperature is below 50 degrees F or when weather conditions otherwise prevent the proper handling or finishing of the patch.

### **EQUIPMENT**

Equipment, tools and machines used in the performance of the work shall be maintained in satisfactory working condition at all times, and shall be subject to the approval of the Engineer. All equipment proposed to be used under this section shall be of sufficient size and in such mechanical condition to be capable of completing the work and producing a good patch.

### **SAW CUTTING**

The outline of the asphaltic concrete to be removed shall be cut in clean, straight lines with a power-driven saw to a depth equal to the depth of the existing asphalt concrete before removing the surfacing.

### **REMOVAL OF DAMAGED ASPHALT**

Surfacing and base shall be removed without damage to the pavement that is to remain in place. Damage to the pavement that is to remain in place shall be repaired to a condition satisfactory to the Engineer, or the damaged pavement shall be removed and replaced with new asphaltic concrete if ordered by the Engineer. Repairing or removing and replacing pavement damaged outside the limits pavement to be replaced shall be at the Contractor's expense and will not be measured nor paid for by the customer.

The existing materials shall be excavated to the proper depth, the subgrade compacted and all loose materials removed.

Removed materials shall be disposed of outside the property in a pre-designated location as approved by the Engineer.

### **PREPARATION OF THE BASE**

The material remaining in place shall be graded to a plane, watered and compacted. The finished surface of the remaining material shall not extend above the grade established by the Engineer.

Areas of the base material that are low, as a result of over excavation shall be filled at the Contractor's expense with asphaltic concrete.

### **APPLICATION OF TACK COAT**

The vertical walls and adjacent surface areas of the excavated sites shall receive a tack coat of SS-1H emulsion prior to the placement of the final lift of asphaltic concrete. This tack coat shall cover the entire vertical face of the existing surface.

### **PATCHING MATERIAL**

The patching material shall consist of hot asphalt concrete conforming to MAG Spec, Section 710. The selection of the particular gradation of the asphalt concrete to be used will be determined by the Engineer and should be based on the particular use of the asphalt surface.

### **PLACEMENT OF PATCHING MATERIALS**

The materials shall be placed around the perimeter of the patch area and raked toward the center of the patch to reduce segregation and concentration of aggregates at the joints. The materials shall also be dumped or placed and not thrown or broadcast to reduce segregation.

The thickness of the compacted patch shall match the depth of the adjacent pavement surfaces and shall be a minimum of two inches (2") deep or, as specified on approved plans and/or specifications or as directed by the Engineer.

## **COMPACTION OF MIXTURE**

Compaction shall be effected by tandem rollers (steel wheel) with a minimum weight of 7 tons. Rolling of the mixture shall begin as soon after placing, as the mixture will bear the roller without undue displacement. Delays in rolling freshly spread mixture will not be tolerated. Alternate trips of the roller shall be of slightly different lengths.

Rollers shall move at a slow, not to exceed 3 MPH (264 Ft/min.) uniform speed with the drive roll or wheels nearest the paver. The number and weight of rollers shall be sufficient to compact the mixture to the required density while it is still in a workable condition. The surface course shall be compacted to a minimum of 95% of the laboratory density. No leakage from any roller shall be allowed to come in contact with the pavement being constructed nor shall a roller be permitted to stand motionless on any portion of the work before it has been properly compacted. Steel roller wheels shall be treated with water and detergent to prevent the adherence of the asphalt concrete.

Final rolling of the top or finish course shall be accomplished with a steel wheel roller, removing all surface imperfections. Rolling of the surface shall be continued until all roller marks are eliminated and a density of at least 95% of the density of a laboratory specimen of the same mixture is attained.

In areas not accessible to the roller, the mixture shall be thoroughly compacted with hand operated mechanical tampers. Any mixture that becomes mixed with foreign material or in any way is defective shall be removed, replaced with fresh mixture, and compacted to the density of the surrounding pavement.

## **JOINTS**

All joints shall present the same texture, density, and smoothness as other sections of the course. Care shall be exercised in connection with the construction of joints to ensure that the surface of the pavement is true to grade and cross section. All joints shall be completely bonded. The joints between old and new pavements or between successive days' work shall be carefully made in such manner as to ensure a continuous bond between old and new sections of the course. All contact surfaces of previously constructed pavements shall be painted with a thin uniform coat of hot bituminous material just before the fresh mixture is placed. All joints shall be properly "set up" with the back of the rake at a proper height and level to receive the maximum compression under the rolling. Competent workmen, who are capable of making a correct, clean and neat joint shall do the work of setting up the joints. All joints shall be constructed within the smoothness requirements stated herein. To avoid segregation, any excess aggregate remaining on or near the joint area after it is set up, shall be removed from the pavement surface and must not be broadcast across the new pavement mat.

On transverse joints the roller shall pass over the unprotected end of the freshly laid mixture only when the laying of the course is to be discontinued or when delivery of mixture is interrupted to the extent that the unrolled material may become cold. In these cases, the edge-of the previously laid course shall be cut back to expose an even, vertical surface for the full thickness of the course.

On longitudinal joints when the edges of the joints are irregular, honeycombed or poorly compacted, all unsatisfactory sections of joint shall be cut back to expose an even, vertical surface for the full thickness of the course prior to constructing the adjacent pavement.

### **SMOOTHNESS**

Except in intersections or any changes in grade, when a 10 foot straight edge is laid on the finished surface parallel to the centerline of the patch, the surface shall not vary from the edge of the straight edge more than 1/4 of an inch between any two contacts with the surface. Joints shall also be checked for smoothness. Joints shall not vary from the edge of a straight edge placed perpendicular to the joint by more than 3/16 of an inch.

All humps or depressions exceeding the specified tolerances shall be corrected immediately as directed by the Engineer.

### **PROTECTION OF PAVEMENT**

After final rolling, no vehicular traffic of any kind shall be permitted on the pavement until it has cooled and hardened.