

**402-4 Pavement Grinding:****402-4.01 Description:**

The work shall consist of furnishing all materials and grinding the surface of existing concrete pavement at the locations shown on the project plans and in accordance with the requirements of these specifications.

**402-4.02 Blank****402-4.03 Construction Requirements:****(A) General:**

Prior to grinding, spalled areas shall be repaired as specified. Grinding shall be done prior to any specified sawing and sealing of existing transverse and longitudinal joints. Pavement surfaces shall be ground longitudinally. The contractor shall grind a test section of pavement, where designated by the Engineer, to determine that the equipment proposed for use on the project will provide the specified surface texture. The entire area of pavement designated to be ground shall be ground in a manner that results in a uniform surface appearance. Grinding shall continue for the full lane width until the pavement surface on both sides of all transverse joints and all cracks is in the same plane. Longitudinal ridges in adjacent passes of the grinding equipment shall not exceed 1/8 inch in depth. In any one lane, a maximum distance of 1,000 linear feet of unfinished work area between the lead grinder and the last grinder in that lane will be allowed at the end of any work shift. Ground surfaces shall not be smooth or polished and shall have a wet Arizona Mu-Meter number of not less than 60 at 40 miles per hour. The surface shall have a finished texture that has grooves between 0.090 and 0.130 inches wide, spaced 0.060 to 0.110 inches apart and not less than 0.030 inches or more than 0.115 inches in depth. The ground area of any selected two-foot by 100-foot longitudinal area of pavement specified to be ground shall not be less than 98 percent of the selected area. This selected area will be within the center eleven feet of a traffic lane. Residue and excess water resulting from grinding shall be removed from the roadway by vacuuming or any other method approved by the Engineer. The residue shall be removed prior to opening the lane to traffic. Residue and water from grinding operations shall not be permitted to flow across lanes occupied by traffic, onto roadway shoulders or areas containing vegetation, or to flow into gutters or other drainage facilities. Dried residue shall be broomed with a pickup or power broom prior to allowing traffic over the opened work area. After grinding has been completed, the pavement surface will be tested in accordance with the requirements of Arizona Test Method 801. Two Profilograph readings shall be taken in the vehicle wheel paths three feet from the edge of the traffic lane. To be acceptable, a Profile Index shall not exceed 10 inches per mile in any 0.1-mile section. In addition, all areas representing high points having deviations in excess of 0.3 inches in 25 feet, shall be reground until such deviations, as indicated by reruns of the Profilograph, do not exceed 0.3 inches in 25 feet. Additional grinding shall be performed, if necessary, to reduce the overall Profile Index, as measured by the Profilograph, to 10 inches per mile in any 0.1-mile section or remaining portion thereof, along any line parallel to the edge of the pavement. In any areas requiring regrinding, the regrinding shall be done over the full lane width. The contractor shall broom the surface of the concrete so that Profilometer readings can be taken. Profilograph measurements shall be the responsibility of the contractor on all but the final acceptance measurement. The contractor shall bear all costs of profilograph measurements. Traffic control for the final acceptance measurements shall be provided by the contractor.

**(B) Equipment and Procedures:**

Grinding shall be done with diamond blades, mounted on a self-propelled machine that has been designed for grinding and texturing of pavements. The equipment shall be designed such that it will not cause strain or damage to the underlying surface of the pavement. Grinding equipment that causes excessive ravels, aggregate fractures, spalls, or disturbances of the transverse and/or longitudinal joints shall not be used. All grinding machines used in the cross-section of a lane shall have the same wheel or grinding head configuration. Overlapping of grinding passes will not be allowed. The noise level created by any one machine shall not exceed 86 dbA at a distance of 50 feet normal to the direction of traffic. No equipment will be allowed within three feet of a traffic lane open to the public. Maintenance and Protection of Traffic shall conform to the requirements of Section 701.

**402-4.04 Method of Measurement:**

Pavement grinding will be measured by the square yard of pavement ground and accepted. The quantity will be determined by multiplying the width by the length of the ground area.

**402-4.05 Basis of Payment:**

The accepted quantities of pavement grinding, measured as provided above, will be paid for at the contract unit price, which price shall be full compensation for the work complete as specified.