

TECHNICAL SPECIFICATIONS
FOR
MILLING OR GRINDING OF ASPHALTIC CONCRETE FROM STREETS

1. Description

This work shall consist of pavement removal by milling or grinding in conformity with the lines, grades and dimensions shown on this construction drawing and/or as directed by the Engineer and in accordance with these Specifications.

Milling or grinding of asphaltic concrete from streets is divided into two distinct categories for pay purposes under these specifications: Milling or grinding of asphaltic concrete from streets (surface milling) consists of removing a specified depth of asphaltic concrete or a variable depth to either improve drainage or profile of the street. Milling or Grinding of asphaltic concrete from streets (full depth to concrete) is to remove all of the existing asphaltic concrete over an underlying Portland Cement concrete pavement regardless of depth.

2. Materials

The materials removed from the street may be recycled and used in Asphaltic Concrete base courses and leveling course as provided for in Section 9 of these Specifications. The material becomes the property of the Contractor.

3. Equipment

The equipment shall consist of one or more milling machines or grinders with the capability to remove up to three (3) inches of asphaltic concrete in one pass. The milling or grinding machine shall be equipped with a broom or series of brooms to collect the milled asphaltic concrete for picking up and loading a conveyor which in turn will load the material into trucks for disposal. Additional brooms and loading equipment sufficient to remove all the loose material from the streets may be required.

4. Construction Requirements

The depth, width, and length of cut as established by the Construction Drawings or as specified by the Engineer shall be obtained to a tolerance of $1/4" \pm$ for the depth and to width and length as marked or otherwise specified. Milling or grinding of asphaltic concrete from streets (full depth to concrete) requires the removal of all asphaltic concrete from the underlying Portland Cement Concrete pavement.

Once milling or grinding of a street has begun, the operation must continue through the paving stage without interruption or delay unless interruptions or delays are expressly approved in writing by the Engineer.

Milling or grinding around utility manholes and catch basins shall be accomplished with care to prevent damage to utility property and/or the Contractor's equipment. Unless otherwise approved by the Engineer, milling or grinding shall be carried to within one (1) foot of all manholes or catch basins. The utility companies will be responsible for hand chipping the remaining one foot on all utility company manholes. The Paving Contractor

will be required to hand grind or chip around all storm sewer catch basins and manholes. Milling adjacent to curbs or gutters shall be carried the full depth specified to the concrete curb or gutter. Over grinding or milling to a greater depth than specified shall be corrected by the Contractor by replacing the material with new material at no cost to the City of Knoxville.

All loose material shall be removed from the streets, gutters, driveways, sidewalks and shoulders, and in general the construction area shall be left in a condition after milling or grinding as clean or cleaner than before beginning the operation.

When milling the entire width of the street, joints to match the milling depth shall be made at all intersecting driveways and streets. These joints will be located by the Engineer.

5. Method of Measurement

The milled material taken from the street shall be weighed on certified scales with a bonded and certified weigh person and measured by the ton of 2,000 pounds or fraction thereof. The project representative of the City of Knoxville will designate under which item each truck load of material will be paid for and will reconcile each day the total quantities for each item with the Contractor's project superintendent.

6. Basis of Payment

- (a) Milling or grinding of asphaltic concrete from streets (surface milling) shall be paid for at the Contract unit price per ton of 2,000 pounds or fraction thereof.
- (b) Milling or grinding of asphaltic concrete from street (full depth to concrete) shall be paid for at the Contract unit price per ton of 2,000 pounds or fraction thereof.

Compensation for either of the above items shall constitute full payment for all work, materials, labor, and other incidentals required to complete the work and dispose of the materials in accordance with these Specifications.