TO:

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NGINEERING INSTRUCTION

NEW YORK STATE DEPARTMENT OF TRANSPORTATION

T: PAVEMENT MILLING

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APPROVED:

M. TEGZA, Civil Engineer V, Final Plan Review Bureau

The current Special Specification for "Cold Milling of Pavement" does not require the immediate loading and disposing of the milled material as it is produced. Since traffic usually is maintained over the newly milled area, the current specification has been modified to include a requirement to load and dispose of the milled material as it is produced. This change should not have any affect on the cost of this item.

A copy of the new specification is attached.

Therefore, current Item Nos. 18490.4031, 18490.5021 and 10490.0301 are disapproved and are replaced by Items No. 18490.4032, Cold Milling, Shaping and Removal of Bituminous Concrete Pavement, and No. 18490.5022, Cold Milling, Shaping and Removal of Portland Cement Concrete Pavement. This change will become effective with the letting of July 16, 1987.

ITEM 18490.4032 COLD MILLING, SHAPING AND REMOVAL OF BITUMINOUS CONCRETE PAVEMENTS

ITEM 18490.5021 COLD MILLING, SHAPING AND REMOVAL OF PORTLAND CEMENT CONCRETE PAVEMENT

Description

This work shall consist of the milling, shaping and removal of portions of existing pavement surfaces by a cold milling process, within the areas indicated on the Plans, utilizing equipment and procedures meeting the requirements in this specification.

All material removed during this milling process, including any foreign debris existing within or on the pavement, shall be disposed of by the Contractor at a site to be obtained by him or at a specific location designated in the contract documents.

Materials

(Not specified)

Equipment

The milling machine shall be designed and built for milling pavements. It shall reach the depth desired in as many passes as necessary and shall produce a milled surface free from gouges or ridges deeper or higher than 3/8 inches.

The machine shall be equipped with a means to control dust and other particulate matter created by the cutting action.

The milling machine shall be capable of producing a finished profile and cross slope within 1/4 inch of referenced elevation.

The referenced elevation shall be determined through the use of a taut reference line positioned at or near the edge of the milling machine, or through the use of a moving reference line such as a "floating beam or ski" of at least twenty (20) feet in length that is attached to the machine. A short ski or shoe may be used as a moving reference line, with approval of the Engineer, provided a satisfactory fixed reference plane is available at or near the milling machine.

The Contractor shall provide equipment to pick up, remove and immediately clean the milled surface of all loose material without producing any objectionable dust. A dust free surface shall result from the cleaning. To accomplish this, the milling machine shall be a self-loading type or followed by a self-propelled loading conveyor and other equipment to result in a clean, dust free surface. The self-propelled loading conveyor and other equipment shall operate at the same speed as the milling machine and follow immediately behind it.

Construction Details

The cold milling of the existing pavement shall be performed as indicated on the plans and shall produce a reasonably smooth surface.

Profile and cross slope during milling shall be controlled on structures or pavement on grade by the use of a floating beam or ski of at least twenty feet in length. Cross slope shall be controlled by a beam or ski with the cross slope dialed or locked into the machine. The Engineer shall have approval of the method of profile and cross slope control.

When indicated on the plans, profile and cross slope shall be controlled by a taut reference string line.

Areas not accessible to the milling machine, such as around and/or adjacent to inlets, manholes, curbs and transverse joints on structures, may be removed, shaped and cleaned by a small milling machine, handwork, or other methods approved by the Engineer.

The milled material, including that removed by other means, shall be immediately removed from the roadway surface. The milled material shall become the property of the Contractor and be disposed of by him unless it is otherwise indicated on the plans or in the proposal that the material is to remain the property of the State and is to be hauled to a designated storage site.

When working adjacent to traffic, the Contractor shall immediately remove material that is spilled on the traveled way.

The milling operation shall be performed in such a manner that the milled area shall be immediately cleaned of all loose material and dust, without producing objectionable dust, prior to opening to traffic. Any milled material that becomes wet and/or is not picked up by the equipment shall be removed by the Contractor before milling continues.

Cleaning shall again be performed, prior to the placement of the new pavement course, when traffic has been allowed on the milled surface and/or more than 48 hours have elapsed since the initial cleaning, or as directed by the Engineer.

In the event the entire pavement width has not been milled to a flush surface by the end of a work period resulting in a vertical or near vertical longitudinal face exceeding 1 1/4 inches in height, this longitudinal face shall be sloped in a manner acceptable to the Engineer so as not to create a hazard to traffic using the facility during periods when construction is not in progress. Transverse faces that are present at the end of a working period shall be tapered in a manner approved by the Engineer. Milling operations shall be conducted to preclude the possibility of pavement runoff collecting along milled joints and creating a traffic hazard.

Milled surfaces to be overlaid with asphalt concrete shall be covered with a dense graded asphalt course before the end of the paving season. If this is not accomplished, prior to the placement of the overlay course, the Contractor shall repair any damage occurring to the milled surface.

Damage to milled surfaces, prior to overlaying, resulting from traffic or other causes such as, but not limited to, raveling, fuel spillage or any contaminants which would inhibit bond, shall be repaired or remilled by the Contractor in a manner approved by the Engineer.

The Contractor shall maintain drainage at catch basins, according to the details shown on the plans, or in a manner approved by the Engineer.

Method of Measurement

The quantity shall be measured as the number of square yards of pavement surface milled in accordance with the plans and this specification.

In no case will a deduction in area be made for minor unmilled areas due to catch basins, manholes, transverse joints, or minor low areas in pavements from the measured surface area that has been milled. Minor unmilled or low areas are those areas of 10 square yards or less.

Basis of Payment

The unit price bid per square yard shall include the cost of furnishing all labor and equipment necessary to complete the milling, including the removal of pavement by other means, the removal and disposal of milled material, the removal and hauling of milled material to a designated storage area when indicated on the plans or proposal and cleaning the resultant surface after milling. No payment will be made for additional cleaning that may be necessary just prior to placement of any overlaying pavement courses. The cost of that work shall be included in the price bid for the various pavement courses.

Overlay courses shall be paid for under their respective items.

The cost of maintaining drainage shall be included in the price bid for maintenance and protection of traffic.

The cost of providing temporary pavement wedges of asphalt concrete around drainage structures, manholes, valve boxes, bridge abutments and beginning the ends of milled pavement shall be paid for as outlined in Section 619-5.12 of the specifications.