CONSTRUCTION STANDARD SPECIFICATION

SECTION 02576

COLD MILLING

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PART 1 - GENERAL

1.01 SUMMARY

A. Section Includes: Process of removing all or portions of existing asphalt pavement to remove distressed pavement, restore cross-section, improve profile, restore clearances, or improve drainage.

B. Related Sections: Refer to following sections for related work:

1. Section 02222 "Selective Demolition."
2. Section 02510 "Asphalt Concrete Pavement."
3. Section 02578 "Asphalt Concrete Overlay Preparation."

1.02 REFERENCES

City of Albuquerque "Standard Specifications for Public Works Construction"

Section 344 Cold Milling of Pavement Surfaces

1.03 DEFINITIONS

Excessive Grooving: Variation in milled surface in excess of 1 inch (25 mm) from high point to low point across width of surface milled by each pass of milling machine.

PART 2 - PRODUCTS

2.01 EQUIPMENT

Milling Machine: Specially designed and built for milling of bituminous pavements without addition of heat, and ability to plane Portland cement concrete patches in bituminous pavements.

A. Cutting Drum: Minimum 60 inches (1.5 m) wide, and equipped with carbide-tipped butting teeth placed in variable lacing pattern to produce desired finish.

B. Capable of being operated at speeds from 0 to 40 feet (0 to 12 m) per minute, self-propelled, and capable of spraying water at cutting drum to minimize dust while maintaining enclosed cutting area.

C. Capable of removing material next to gutter of pavement being reconditioned, and designed to enable operator at all times to observe milling operation without leaving controls.

D. Adjustable for slope and depth, capable of accurately controlling profile grades and cross slopes within tolerance of plus or minus one inch (25 mm). Equipment shall control profile grades by using either independent grade control or minimum 40 foot (12 m) external reference, and shall also have cross slope elevation controls.

E. Provide smaller machine if required to trim areas inaccessible to larger machine at manholes, gate valve covers, curb returns, and intersections.

1. Cutting Drum: Minimum 12-inch (305 mm) width, mounted on chassis, and ability to be positioned without interrupting traffic or pedestrian flow.

2. Additional equipment may be necessary to remove pavement if areas listed above are inaccessible with 12-inch (305 mm) cutting drum.

F. Milling equipment shall be equipped with means to effectively limit amount of dust escaping from milling operation.

PART 3 - EXECUTION

3.01 PREPARATION

Traffic Signal Loop Detectors: Before cold milling pavement within 300 feet (90 m) of traffic signal, notify Sandia Delegated Representative (SDR) at least 3 working days prior to commencing Work within area.

A. Upon notification, SDR will coordinate marking location of existing loop detectors.

B. Do not cold mill within 12 inches (305 mm) of loop detector conductors.

C. Damage to existing loop caused by milling operation will require replacement of loops in their entirety at Contractor’s expense.

3.02 PROCEDURE

A. General: Cold mill existing pavement surface to depth, width, and grade as indicated in Contract documents, or as directed by SDR. Surface of pavement after milling shall be uniformly rough grooved or ridged as directed by SDR.

B. Cold Milling of Pavement surfaces: Thickness of pavement removal shall be described as nominal thickness, with ranges as follows:

1. Nominal 3/4-inch (19.1 mm) Cut: 3/4 inch (19.1 mm) average of cuts ranging from 0 to 1-1/2 inches (0 to 38.1 mm).

2. Nominal 1-inch (25 mm) Cut: 1 inch (25 mm) average of cuts ranging from 0 to 2 inches (0 to 51 mm).

3. Nominal 1-1/2-inch (38.1 mm) Cut: 1-1/2 inch (38.1 mm) average of cuts ranging from 0 to 3 inches (0 to 76 mm)

4. Nominal 2-inch (51 mm) Cut: 2 inch (51 mm) average of cuts ranging from 0 to 4 inches (0 to 102 mm).

C. Loosened Material: During milling operation, sweep street with mechanical equipment and remove loosened material from site until completion of removal work.

Follow no closer than 50 feet (15 m) behind milling machine, unless otherwise directed by SDR, to remove millings or sweep loosened material.

D. Pavement Transitions: In areas where cold milling is done, but will not be paved within 1 week, overlay with 2-foot (610-mm) minimum width of asphalt concrete pavement transition adjacent to gutters, cross gutters, and structures, and at existing transverse joint lines.

Pavement transition may be omitted when vertical offset between milled surface and adjacent riding asphalt surface is less than 3/8 inch (9.5 mm).

E. Tolerances: When 10 foot (3 m) straight edge is laid on finished surface parallel to centerline of roadway, surface shall not vary from edge of straightedge more than 3/8 inch (9.5 mm), except at intersections or any changes of grade.

1. Adjust to established depth in increments of 1 inch (25 mm) or less.

2. Excessive grooving by cold milling will not be permitted.

3.03 CLEANING

Keep premises free from accumulations of waste materials, rubbish, and other debris resulting from Work. Remove cold milled material from pavement surface, and transport to salvage or disposal areas provided by SDR.

A. Remove and transport demolished material to comply with requirements of Section 02222 “Selective Demolition.”

B. Remove tools, construction equipment and machinery, and surplus materials.

C. Restore to their original condition portions of site not designated for alteration by Contract documents, unless completion of Work is directly affected. of work.

END OF SECTION