Town of New Castle
Streets Maintenance Standards

SCOPE

Work to be performed shall include all labor, equipment, materials, traffic control, mobilization fees, milling and miscellaneous items necessary to furnish and install one or more courses of hot mix asphalt, chip and seal or crack sealer.

Please price the projects by square yard or square foot and include a total amount.

REFERENCE STANDARDS

All work is to be performed in accordance with the "State Department of Highways – Division of Highways – State of Colorado – Standard Specifications for Road and Bridge Construction", latest edition. The reference items listed below are not reproduced in their entirety.

TRAFFIC CONTROL

The Contractor shall provide the Town with a detailed traffic control plan prior to starting any street work. Unless otherwise provided, the Contractor shall keep the road open to all traffic in accordance with the traffic control plan during the progress of the work. Schedule operations so that only one side of the road is denied to traffic at any time. The road and intersections of access points shall be maintained in a manner that will safely and adequately accommodate traffic. Barricades, warning signs, lights, temporary signals, and other protective devices shall conform with the latest revision of the "Manual on Uniform Traffic Control Devices for Streets and Highways" published by the FHWA.

MILLING

Milling will be performed in a professional manner. Any marring, extensive chipping, cracking of concrete and extensive damage to existing asphalt shall be repaired by the Contractor.

Millings will be removed by Contractor, and milled areas will be swept clean and debris removed prior to tack application.

TACK COAT

Prior to spraying tack coat and beginning overlay work, the surface to be tack coated shall be swept to remove accumulations of loose gravel and debris.

Contact surfaces of curbing, gutters, manholes, and other structures shall be painted with a uniform coating of bituminous material prior to placing asphalt against them. Only the surfaces of the structures that are in direct contact with the asphalt shall be coated. Any over application or tack transference to exposed / visible areas shall be cleaned and removed by Contractor.

Prime coat or tack coat shall not be applied when the surface is wet, or when weather conditions would prevent the proper construction of the prime tack coat. Tack coat shall be applied in a uniform and continuous spread. No more than ½ of the width of the street shall be treated in one application, or sufficient width shall be left to adequately handle traffic. Tack material shall not be placed on any surface where traffic will travel on the freshly applied material, prior to installation of the new asphalt.

CRACK SEALING

This work consists of furnishing and placing a hot poured joint and crack sealant in properly prepared cracks in asphalt pavements. Cracks with a width greater than 1/8" and less than 1" are to be filled with this material. Immediately before applying hot poured joint and crack sealant, the cracks shall be cleaned of loose and foreign matter to a depth approximately twice the crack width. Cleaning shall be performed using a compressed air lance.

Crack sealant will be flush with the pavement surface. Following the filling of the crack, excess sealant shall be leveled off at the wearing surface by squeegee, a shoe attached to the applicator wand, or other means. The contractor shall have blotter material available on the project in the event it is required to prevent tracking or pulling.

3/8" CHIP /SEAL/FOG

This work consists of furnishing and applying bituminous material and aggregate cover coat, followed by a seal coat on an existing surface. Aggregates for cover material shall be crushed stone, crushed slag, crushed gravel, or natural gravel. Aggregates shall be composed of clean, tough, durable fragments free from an excess of flat, elongated, soft, or disintegrated pieces and free from fragments coated with dirt or other objectionable matter. Slag shall be reasonably uniform in density.

The entire road surface that is to receive a chip / seal coat shall be cleaned of loose sand, dust, rock, mud, and other debris that could prevent proper adhesion of the bituminous coating. The cleaning shall be accomplished by power broom, scraping, blading, or other measures. Bituminous material shall be applied by a pressure distributor in a uniform, continuous spread and within the required temperature range. If streaking occurs, the distributor operation shall be stopped immediately until the cause is determined and corrected. The length of spread of the bituminous material shall not be in excess of the area which trucks loaded with cover coat material can immediately cover. Bituminous material shall not be applied on a damp surface, when either the air or pavement surface temperature is below 70 degrees Fahrenheit, or when weather conditions would prevent the proper construction of the seal coat.

If directed, the cover coat material shall be moistened with water prior to spreading, to eliminate or reduce the dust coating of the aggregate. If cover coat material is lightweight aggregate, it shall be moistened with water prior to spreading.

Immediately after the cover coat material is spread, any deficient areas shall be covered with additional material. Rolling shall begin immediately behind the spreader and shall continue until three complete coverages are obtained. Rolling shall be completed the same day the bituminous material and cover coat are applied. The completed roadway surface shall be lightly broomed the following morning to remove excess material, without removing any imbedded material.

A fog seal shall be applied at the rate of 0.1 gallon per square yard of diluted emulsion. The emulsion shall be diluted with water at the rate of 50% water and 50% emulsion.

HOT BITUMINOUS PAVEMENT

This work consists of constructing one or more courses of hot mix asphalt (HMA) pavement on a prepared base in accordance with "State Department of Highways – State of Colorado- Standard Specifications for Road and Bridge Construction", and in conformity with the lines, grades, thickness, and cross section shown that is established.

HMA pavement shall be composed of a mixture of aggregate, filler if required, and asphalt cement. HMA shall be placed only on properly prepared unfrozen surfaces which are free or water, snow, and ice.

Irregularities in the existing pavement or base shall be brought to uniform grade and cross section. Prior to placing tack coat and beginning overlay work, the surface to be tack coated shall be swept to remove accumulations of loose gravel and debris.

Bituminous pavers shall be used to distribute the mixture to the established grade and required thickness over the entire width or partial width as practicable. The HMA shall be compacted by rolling. The type of roller furnished shall be sufficient to obtain the required density while the mixture is in workable condition. Compaction shall begin immediately after the mixture is placed and be continuous until the minimum density of 92% is obtained.

Areas to be patched shall be excavated and squared to a neat line, leaving the sides of the excavation vertical. Prior to placement of the patch, the exposed sides of the existing pavement shall be thoroughly coated with a tack coat. Hot bituminous pavement shall then be placed and compacted in succeeding layers. Maximum compacted pavement depth per layer to be 3".