ITEM SPECIAL - SAWING AND SEALING BITUMINOUS CONCRETE JOINTS

DESCRIPTION:
This work shall consist of cutting and sealing transverse joints in the new bituminous concrete overlay of box beam bridges. Bituminous concrete joints shall be constructed directly over, and in line with, the existing underlying transverse abutment joint of the box beams.

MATERIALS:
The joint sealant shall meet the requirements of Item 205.64, Joint Sealants, Hot-Poured, for Concrete and Asphalt Pavements, Acceptable Alternate Materials are:

- A Silicone Sealant meeting Federal Specifications TT-S-00943A Class A One-Part Silicone Sealant (SF-5-00943A), Class A One-Component sealants, such as those manufactured by General Electric, Silicone Products Division, 405 Executive Park Drive, Cincinnati, Ohio 45242-1527-193830 Dow Corning, 400 Technic Center, Suite 103, Milford, Ohio 45150-0317-35800 or Sop-Scale Cold-Appplied, Low-Modulus, Two-Component Polymeric Compound Horizontal sealant as manufactured by W.R. Meadows, Inc., P.O. Box 543, Joliet, Illinois 60431-9002-39076.

CONSTRUCTION DETAILS:
A) Generally, the contractor shall conduct his operation so that the cutting, cleaning and sealing of transverse joints is a continuous operation that will be performed as soon as practical after the paving, but no later than four (4) days after completion of the asphalt concrete surface course. Traffic shall not be allowed to knead together or damage joint cut prior to sealing.

B) Cutting of transverse joints, the contractor shall saw to put transverse joints to the dimensions shown in the details on this sheet. The joint shall be cut direct above each box beam abutment joint. The blade or blades shall be of such size that the full width and depth of the cut can be made with one pass. Dry or wet cutting will be allowed. Joints shall extend the full width of the bridge.

C) Cleaning joints: Dry jointed joints shall be thoroughly cleaned with a sufficient amount of compressed air to remove any dirt, dust, or lingering material. Wet joints shall be washed clean of all cuttings by flushing with a jet of water and with other tools as necessary. After flushing, the joint shall be blow out with compressed air. When the surfaces are thoroughly clean and dry, and just prior to placing the joint sealant, compressed air having a pressure of at least 90 P.S.I. shall be used to blow out the joint and remove all traces of dust.

IN THE EVENT FRESHLY CUT JOINTS BECOME CONTAMINATED BEFORE THEY ARE SEALLED, THEY SHALL BE RECLEANED OF ALL FOREIGN MATERIAL BY HIGH PRESSURE WATER JET.

D) Sealing joints, the joint shall be thoroughly dry when the sealant is placed. After cleaning and drying, a bond-breaker material shall be applied to the bottom of the groove.

HOT-Poured JOINT SEALANT MATERIAL shall be heated in a kettle or melter constructed as a double boiler, with the space between the inner and outer shells filled with oil or other heat transfer medium. Positive temperature control and mechanical agitation shall be provided. Heating must be in strict accordance with the manufacturer's recommendation. Joint sealant material shall never be kept heated at the pouring temperature for more than four (4) hours and shall never be reheated, sealed left in the applicator at the end of a day's work shall not be used.

HOT-Poured SEALANT MATERIAL shall be applied immediately through a nozzle, which must project into the same joint, filling from the bottom up. The sealant shall completely fill the joint in such a manner that, after cooling, the level of the sealant will not be higher than 3/4" below the pavement surface. Any depression in the cooled seal, greater than 3/4", shall be brought up to the specified limit by further addition of hot-poured sealant. Care shall be taken in the sealing of the joints so that the final appearance will present a neat line.

THE COLD APPLIED SEALANT MATERIALS POLYURETHANE, SILICONE, AND POLYMERIC COMPOUNDS SHALL BE INSTALLED AS PER MANUFACTURERS RECOMMENDATIONS. EXCEPT AS MODIFIED BY THIS DRAWING. THE SEALANT SHALL BE INSTALLED WHEN THE AMBIENT TEMPERATURE IS 40 DEGREES F OR HIGHER. TRAFFIC SHALL NOT BE ALLOWED ON THE JOINT FOR ONE HOUR AFTER APPLICATION OF THE SEALANT.

METHOD OF MEASUREMENT:
The quantity to be paid for under this item will be the number of linear feet of joints sawed and sealed as per the above requirements.

BASIS OF PAYMENT:
The unit price per linear foot for item special - sawing and sealing bituminous concrete joints shall include the cost of all labor, materials, and equipment necessary to complete the work, including the furnishing and placing of the joint sealing material.

ITEM 560 - 2" DEEP JOINT SEALER, AS PER PLAN
This item shall meet the material (section 2) and sealing (section 3) specifications of item special - sawing and sealing bituminous concrete joints.