5.06 JOINT SEALING AND JOINT FILLER MATERIALS

5.06.01 GENERAL

These instructions cover the inspection, sampling and testing of materials used for filling and sealing joints in concrete and various kinds of pipe.

5.06.02 HOT TYPE JOINT SEALING COMPOUND

(a) General.

Hot type joint sealing compound is manufactured and packaged in lots or batches and is offered for sampling in separate containers or pails.

(b) Basis of Acceptance.

See Special Provision 90P/M-192 (latest revision).

(c) Methods of Inspection and Sampling.

Inspection and sampling of hot type joint compound is limited to securing samples from filled shipping containers and submitting them to the Materials and Research Center for testing. Samples will be taken by a representative of the Department, and must be available for testing in the Materials and Research Center a minimum of ten working days prior to the date the material is required for installation.

Samples shall be taken as set forth in subsection **5.16.27**.

5.06.03 COLD APPLIED, CHEMICALLY CURED JOINT SEALING COMPOUND

(a) General.

These sealants are silicones, polyurethanes, etc. which react chemically with the air to cure after placement.

(b) Basis of Acceptance.

See Special Provision 90P/M-97 (latest revision).

(c) Methods of Inspection.

Inspect the material visually before it is used. The Engineer should be satisfied that the shipment can be identified with the certification.

5.06.04 PREFORMED EXPANSION JOINT FILLER FOR CONCRETE

(a) General.

These materials are preformed resilient materials that are embedded in concrete when it is placed. There are two types as follows: Type A, Redwood Board Expansion Joint Filler, and Type B, Preformed

Expansion Joint Filler. The Type A and Type B materials represent the level of quality of material required and are not to be confused with a Type A or Type B certification.

These materials are used where the joint will not open to more than its initial width as constructed and will be sealed after installation with a joint sealing compound.

(b) Basis of Acceptance.

See Standard Specifications Manual Subsection 1503.

5.06.05 PREFORMED ELASTOMERIC COMPRESSION JOINT SEALS FOR CONCRETE

(a) General.

These joint seals are a preformed elastomeric open-cell compression type intended for use in sealing joints in concrete pavement and bridges. A lubricant-adhesive is part of the system.

(b) Basis of Acceptance.

See Standard Specifications Manual Subsection 1504.

(c) Methods of Inspection.

The Type C certification shall be reviewed and the material will be inspected by the Field Engineer before it is used. He should satisfy himself that the shipment is identified and that he has received the proper material.

5.06.06 MATERIALS FOR FILLING AND SEALING JOINTS IN PIPE

(a) Plastic Joint Compound for Concrete and Vitrified Clay Pipe.

(1) General: This is a blend of asphalt or tar, an inert mineral filler and a sufficient amount of suitable solvent to produce a plastic, workable material.

(2) Basis of Acceptance.

See Special Provision 90 P/M-131(latest revision).

(3) Methods of Inspection and Sampling: Inspection and sampling is limited to securing samples from filled shipping containers and submitting them to the Materials and Research Center for testing. If the material has been sampled, tested and accepted prior to shipment, the Field Engineer should inspect the material before it is used to satisfy himself that each package is identified with the test report and that no damage has occurred during handling, shipping and storage. If the material has not been sampled, the District Materials Engineer should be advised so arrangements can be made for sampling. Samples shall be taken as set forth in subsection **5.16.27**.

(b) Factory Molded Joints.

(1) General: These joint rings which comply with ASTM C425, are applied to standard and extra strength vitrified clay pipe by the pipe manufacturer. They are molded and fused to both bell and spigot ends of the pipe and form a seal by a uniform compression of the mating surfaces and are designed to ensure a watertight, root resistant joint.

(2) Basis of Acceptance.

Type D Certification.

(3) Methods of Inspection and Sampling: The Field Engineer should inspect each piece of pipe at destination before it is placed to ensure that it is identified with the test report and that the pipe and joint materials have not been damaged during shipping, handling and storage.

(c) Materials for Joints in Cast Iron Pipe.

(1) Lead and Jute.

a. General: The lead is shipped in bars which are melted on the project as they are needed and the jute is shipped in coils or rolls.

b. Basis of Acceptance: These materials are accepted upon receipt of a Type D certification and visual inspection.

c. Methods of Inspection: Since neither of these materials are inspected prior to shipment, they must be inspected by the Field Engineer. The jute should be inspected for cross-sectional uniformity and freedom from defects that would allow the entrance of the melted lead into the pipe.

(2) Rubber Seals.

a. General: These seals are normally installed at the point of pipe manufacture.

b. Methods of Inspection: The seals should be inspected at destination and prior to installation to determine the presence of imperfections that could cause leakage of the joint.

c Basis of Acceptance: See Standard Specifications Manual Subsection 1505.