

1708 – BRIDGE BACKWALL PROTECTION SYSTEM

SECTION 1708

BRIDGE BACKWALL PROTECTION SYSTEM

1708.1 DESCRIPTION

This specification covers waterproofing protection systems to be applied to the face of a concrete abutment against which a backfill will be placed. Requirements for the systems other than the coal-tar membrane are performance oriented, and not limited to any single methodology to accomplish the desired results.

1708.2 REQUIREMENTS

a. General. Make bridge backwall protection systems of permanent non-biodegradable materials possessing the waterproofing protection qualities outlined below. All materials incorporated into a system must be environmentally acceptable, and not prohibited by any regulatory body. Handle, store and install bridge backwall protection systems in strict compliance with the manufacturer's recommendations.

b. Properties.

(1) The system provides an impermeable layer that adheres to the concrete surface. Such adherence may require the presence of water to activate the system. The activated system prevents lateral movement of water at the interface between the concrete and the impermeable layer.

(2) The system is self healing when punctured by sharp objects. It has the capability to flex and bridge over, or move into and seal any cracks which may develop in the concrete.

(3) Acceptable bentonite based systems contain a minimum of 9 lb of evenly distributed bentonite per square yard of system surface area.

1708.3 TEST METHODS

None required.

1708.4 PREQUALIFICATION

a. Bridge backwall protection systems that are intended for use under this specification must be prequalified. Submit a written request to the Bureau Chief of Construction and Materials, with the following information for each type and brand name being offered:

(1) Name, address and telephone number of the manufacturer. Include the name of the preferred contact person.

(2) Brand name of the system.

(3) Complete technical information on the system, including test reports addressing requirements cited above. Include small sales samples of the system. Larger samples will be requested if further testing is necessary.

(4) Information regarding recommended usage and application instructions. Specifically identify any concrete surface or system curing requirements.

(5) Material Safety Data Sheets.

b. The information will be reviewed by the Bureau Chief of Construction and Materials, and the manufacturer will be advised as to whether or not the product is prequalified.

c. The Bureau of Construction and Materials will maintain a list of prequalified bridge backwall protection systems. Products will remain prequalified as long as the formulation and manufacturing processes remain unchanged, and field experience indicates that the material functions appropriately. Changes in formulation or manufacturing processes will require a new prequalification review.

1708.5 BASIS OF ACCEPTANCE

Prequalification as specified in **subsection 1708.4**.

Receipt and approval of a Type C certification as specified in **DIVISION 2600**.

Visual inspection at destination for condition and compliance with dimensional and other requirements.