

Reviewed by:

Robert F. Cauley
 Robert F. Cauley
 Materials and Research
 Engineer



Prepared by:

Craig Graham
 Craig Graham
 July 23, 1997

 RESEARCH UPDATE

Update U97-6

SOPREMA BRIDGE DECK MEMBRANE SYSTEM

HISTORY:

Bridge deck protective systems have been used throughout Vermont for the past twenty five years. Almost all of these systems have used a combination of a preformed sheet and liquid polyurethane membranes, such as the currently approved Royston 10AN and Bituthene 5000 systems. To further explore the feasibility of using different types of bridge deck protective systems, this report documents the installation of a sheet membrane manufactured by Soprema Roofing and Waterproofing on a new bridge between Gilman, VT and Dalton NH (NHDOT Project Dalton/Lunenburg S-4356).

PRODUCT:

Soprema Bridge Deck Membrane, which is manufactured by Soprema Roofing and Waterproofing of Wadsworth, VT and supplied by Quinn/Brown Associates of Norway, ME. A.D.Rossi of St Johnsbury, VT was the contractor. The membrane consists of a primer, and a sheet membrane with a granular material for enhanced bonding capability.

INSTALLATION:

This material was applied on the bridge over the Connecticut between Gilman, VT and Dalton, NH. This was a new steel girder which was slated to replace a historic, but structurally weak bridge. The installation began on June 30, 1997 when the new concrete deck was cleaned and brushed. Primer was then applied, at a rate of 1 gal/200 ft². The temperature was approximately 80 degrees and humid. After the primer dried, the 177 mil thick membrane was applied by torch over the entire bridge deck, and was completed on July 6, 1997. The installation took longer than normally expected as personnel for A.D. Rossi were being trained in the proper application procedures by Soprema and Quinn/Brown personnel.



Project Location, Dalton/Lunenburg S-4356

FOLLOW UP

This bridge membrane system will be evaluated and surveyed by the VAOT in collaboration with the NHDOT. Reports will be issued as significant data are collected.

U97-6

Figure 1.

**Application of
primer**

June 30, 1997

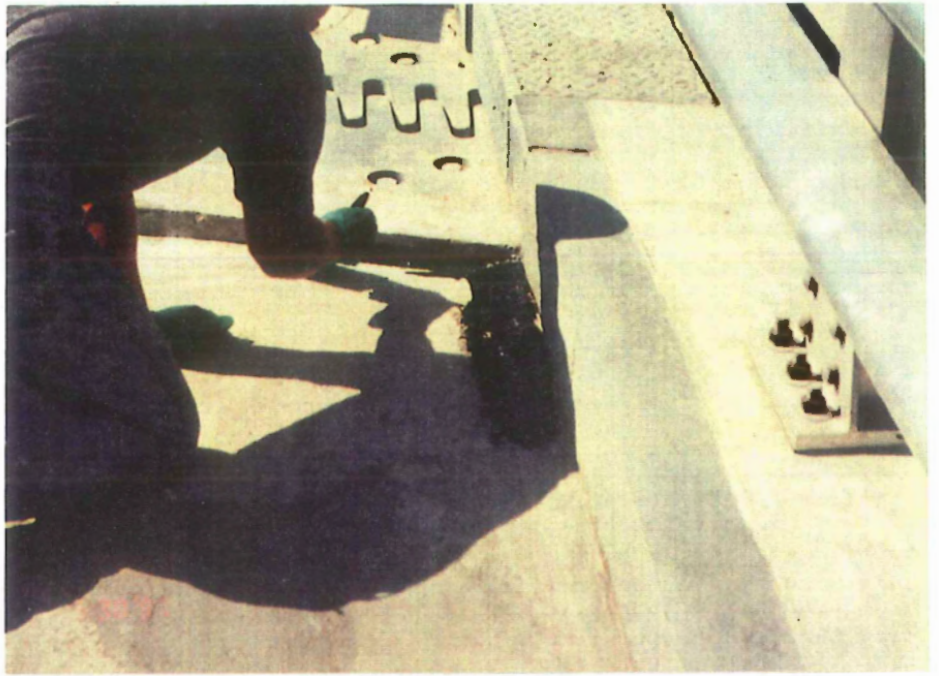


Figure 2.

**Application of curb
membrane**

July 1, 1997



Figure 3.

**Application of sheet
membrane**

July 1, 1997

