



## Southeastern Louisiana University Parking Garage

Hammond, Louisiana, USA



Owner  
**UNIVERSITY OF  
SOUTHEASTERN LOUISIANA**

Engineer  
**SCHRENK & PETERSON  
CONSULTING ENGINEERS**

Completion Date  
**2008**



Xypex Admix C-1000 has been used to successfully waterproof the “roof deck” portions of this parking structure in Hammond, Louisiana. The structure consists of precast columns and beams with “double T” panels forming the suspended slabs.

The double T’s are then topped with approximately 4” of ready mixed concrete.

A typical waterproofing system used in the upper level parking to keep rain water out of the structure would be a polyurethane membrane. However, polyurethane membranes are known to breakdown over a period of 5-10 years due to traffic loads and UV degradation. These membranes must then be replaced.

The use of Xypex in the concrete replaces the Polyurethane membranes and provides a permanent waterproofing of the concrete. In the Xypex system, any moving cracks or joints must be treated with a flexible sealant (typically polyurethane such as Sikaflex 2c or BASF NP2). This crack and joint treatment is similar to that which is used for membrane-treated slabs.

Cracks and joints that can be expected to require flexible sealant treatment will exist at the interface of the double T elements. The concrete overlay can be tooled at this interface at the time of placement or saw cut shortly after placement to provide a formed well for the sealant. Conversely, the concrete can be allowed to crack and the cracks “chased and sealed”. Other areas, such as the interface of the parapet walls and slab, will also likely need detailing and sealing. Prior to construction, a survey of where expected thermal and live load moving cracks are likely to occur should be completed. After construction, a similar survey needs to be completed and any expected movement cracks should be similarly treated.

When this method is followed, Xypex admixture modified topping concrete can eliminate the need for a parking deck membrane for the waterproofing of parking slabs and roof decks. A Xypex modified parking deck will require only that the sealed cracks and joints be maintained with no other concrete waterproofing maintenance required over the life of the structure.