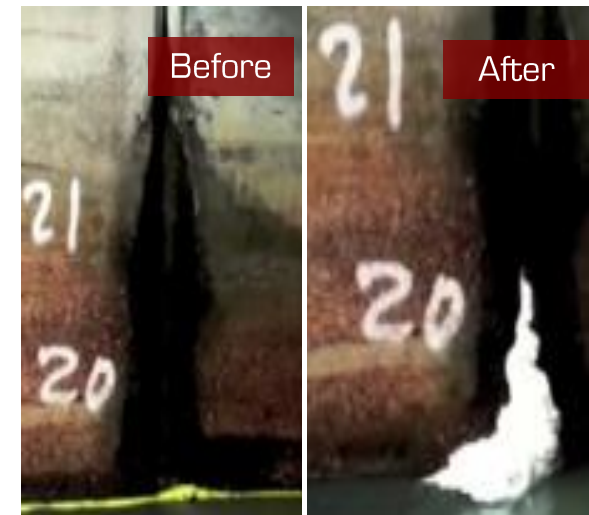


# Addicks & Barker Outlets

## Houston, TX



**PROGRESS PICTURE**



Project Challenges	Solution	Support	Outcome
<ul style="list-style-type: none"> <li>• Massive Voids detected beneath two critical flood control outlet structures</li> <li>• Only other options included long downtime and interruption</li> </ul>	<ul style="list-style-type: none"> <li>• Inject beneath structures to:</li> <li>• Fill Voids (up to 5' deep)</li> <li>• Displace subsurface water</li> <li>• Densify supporting soils</li> </ul>	<ul style="list-style-type: none"> <li>• Quick responsiveness to design solution and mobilize</li> <li>• Coordination between URS and USACE</li> <li>• Continuous monitoring and updates</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Minimal intrusion:</b> Work performed in 10 days without taking structure out of service</li> <li>• <b>Quick Cure:</b> 90% strength in 15 minutes</li> <li>• <b>Cost Savings:</b> 10% of replacement cost</li> </ul>