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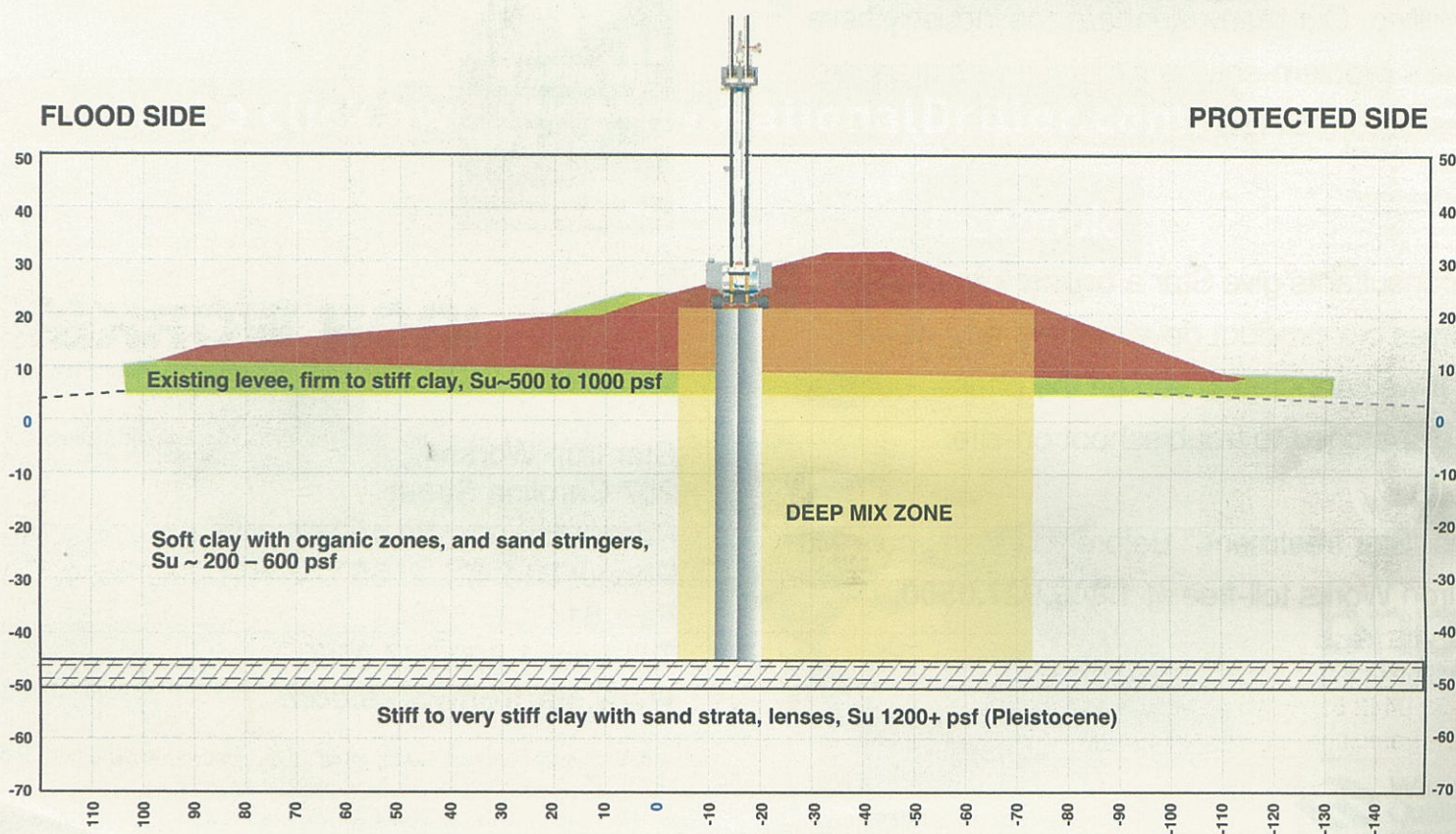
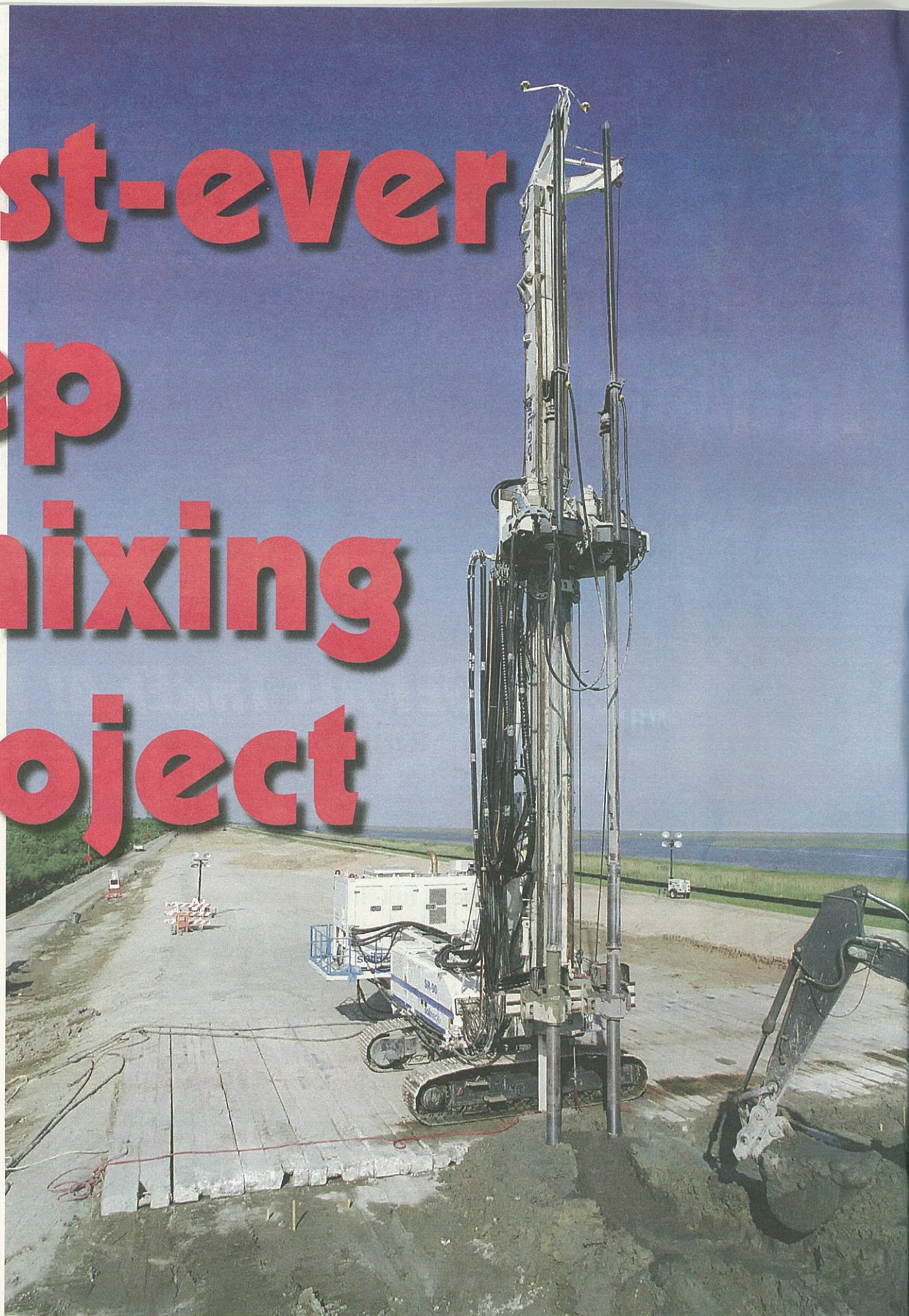
**HAMMERS & BITS
DRILL RIG OPTIONS
DEEP SOIL MIXING**

**SPECIAL SECTION:
MANUFACTURER SPOTLIGHTS**



Largest-ever Deep Soil-mixing Project

Three SR-90 hydraulic rotary rigs and two single-auger rotary rigs (SR70 and SR80) are at work in New Orleans on the biggest deep soil-mixing job ever performed in the United States.



The consolidation of the LPV 111 levee is part of a vast number of projects designed to increase the level of protection to New Orleans in case of severe weather events. The major project was awarded to a joint venture of Archer Western/Alberici in alliance with Treviicos, the U.S. branch of Trevi Group. Treviicos is taking charge of the geotechnical aspect of the works, and creating the buttresses necessary for the structural reinforcement by adopting a deep soil-mixing process. The construction of buttresses via deep soil-mixing will create structural continuity along the entire length of LPV 111, and prevent the levee from giving way – even in case of

(Continued on Page 12)



(Soil Mixing - Continued from Page 10)

surf surge.

The buttresses are composed of multiple structural elements formed by two overlapping columns installed using a double-auger Soilmec SR-90 rotary rigs, fitted with two special helicoidal attachments that mechanically break up the soil during drilling and inject it with a cement mix. Because of the size of the structural elements composing the buttresses (64 inches overlapped by 8 inches, producing a total width of 10 feet, with 1.9 cubic yard of mix injected every 3.3 feet), the machines must deliver elevated power and, as such, play a key role in terms of quality and production output. For more confined areas due to logistical restriction, single-auger rigs (Soilmec SR70 and SR80) were mobilized to the site.

To enable the construction of two columns of mixed soil at a time, the SR-90 rigs were outfitted in the TTM (Twin Turbo Mix) version, and equipped with an auxiliary unit and two shafts, and two drilling and injection attachments. The SR-90s also feature a control system on the pumps of the mixing plant to allow monitoring of the flow rate and quantity of material flowing to the attachments.



The machines also ensure the correct positioning of the columns, thanks to the Drilling Mate System, which provides full monitoring of all vital

functions of the rig, and controls axial deviation from the set parameters through the Drilling Position System. This device is of basic importance for

guaranteeing the quality of the structural elements and their adherence to the parameters contained in the project specifications. **ND**