

OVERVIEW: Tarmac Outfall / Dissipater at Fort Campbell / 101st Airborne Division, Clarksville, Tennessee

Just prior to the deployment of troops for the current war effort, a new tarmac airport runway apron for the airstrip nearest Gate 7 was constructed at Fort Campbell. The new tarmac measuring an amazing 2800-feet long by 500-feet wide replaced an earlier one that featured five separate and distinctive turnaround aprons. While the new tarmac was designed in one solid mass the issue of groundwater runoff needed to be addressed.

The scope of the project was to create a drainage feature that included taking all water to one side and directing it to a holding basin at the southwest corner of the tarmac. A 72-inch concrete outfall was the collecting point for the flow and needed a means for which to discharge water and at the same time dissipate its energy prior to being released into the basin to eliminate massive erosion to the ground surface. Engineers specified the use of A-Jacks armor units, ArmorFlex Class 50s hand-placed units and mattresses to control the flows. An area of 1,936 square feet of mats was installed and abutted two rows of 48-inch A-Jacks interlocked to dissipate the water flow velocity. Additional matting was placed behind the two rows of A-Jacks to complete the project and serve as a ditch adjoining the basin. This opposed to Rock Riprap as an alternative.

The entire project from beginning to end took two days including site prep. Four laborers and one piece of heavy equipment (a track hoe) were used to complete the project. Due to the extreme issue of security the contractor who didn't have first hand experience with installing A-Jacks or ArmorFlex completed the work without the benefit of a manufacturer's representative and was extremely pleased with the outcome.



PRODUCT: Armortec ArmorFlex Class 50s Articulating Concrete Block (ACB) Units, Cabled mattresses and A-Jacks AJ-48 Concrete Armor Units

AMOUNT: 1,936 Square Feet of ArmorFlex Class 50s
43 A-Jacks AJ-48 Armor Units

DATE: Summer 2002

OWNER: U.S. Army Corps of Engineers, Louisville District

ENGINEER: L.P.A. Group
Columbia, NC
Andy Busbee
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CONTRACTOR: Lane Construction Co. Inc., Meriden, CT., Phone 203-235-3351

SUBMITTED BY: David Kees

DATE: February 2004

