

# Ingenuity That Pays

## Polyurethane Foam Proposal Saves Univesity in Waterproofing Costs

**Lakeland, Florida**

### The Ambulatory Care Center (ACC)

Building on the downtown campus of the University of Florida required extensive weatherproofing due to prolonged water intrusion since its construction in 1994. The schematic focused on addressing the needs of the Architectural, Mechanical, Civil, and Electrical systems of the basement of the ACC Building. The underground space desperately needed internal and external weatherproofing to adequately address the standing water and intrusion caused by constant external





The University of Florida contracted the design team to assess the spacing requirements and necessary alterations for a long-term solution. After discussions with the facility staff, other vendors and testing from specialists, Foundation Professionals of Florida provided three potential options as solutions. The solutions proposed each had their own merits and drawbacks due to spatial constraints, associated costs, and workflow expectations.



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While restoring the area to its original condition required replacing a bush and two pallets worth of sod, the job was completed with no **digging, no excavation, no sheet piling, no dewatering, no shoring, no tree removal, no access ramps, and most importantly, no closing down emergency room access!**









The foundation professionals completed the waterproofing injection services by using a structural plural component polyurethane grout. Polyurethane Foam P2-011. They understood the purpose of the remediation program, and the specified work consisted of filling and sealing concrete cracks and openings to stop the water intrusion into the basement.



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The project consisted of remediating approximately 410 feet of basement foundation and walls from the outside the building and approximately 120 feet treated from inside the basement itself.







The biggest challenge the Foundation Professionals of Florida faced was convincing the UF Health Administrators to trust they could completely stop the water intrusion and dry up the basement by injecting Polyurethane Foam from outside of the building. The Administrators struggled to comprehend the task could be accomplished for 1.2 million dollars instead of the 4.8 million dollar initial proposal. The University had received quotes and work schedules to waterproof the basement via conventional means, but those proposals were projected to span an entire year!



The Foundational Professionals of Florida completed the work in 34 days, saving UF Health 3.5 million dollars with zero interruptions to their daily activities!



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The improvements to the basement were accomplished by injecting the structural hydrophobic expansive polyurethane grout into the near-surface soils, starting at a depth of 2 feet below the existing basement foundation at roughly 22 feet below ground surface.

The injection system was designed to deliver single or multi-component polyurethane grouts over 100 feet below ground, simultaneously sealing leaks while permeating loose and wet soils in all directions. The mini drill rig used to install the polymer grout injection points was roughly 30-inches wide by 84-inches long. They installed injection points 3-feet apart and 22-feet below ground. The majority of the polymer was injected at the foundation and wall connection locations.

