

**WATER AUTHORITY OF DICKSON COUNTY, CUMBERLAND RIVER PROJECT  
CONTRACT E-1, 5 MGD ULTRAFILTRATION MEMBRANE  
DICKSON, TENNESSEE**

**OWNER**

Dickson County Water Authority  
121 S. Main Street  
Dickson, Tennessee 37055-1813  
Contact: Bruce Trotter  
Telephone: 615-441-4188

**ENGINEER**

Barge Waggoner Sumner and Cannon  
211 Commerce Street, Suite 600  
Nashville, Tennessee 37201-1808  
Contact: Judy Alford, P.E.  
Telephone: 615-254-1500

**% SELF PERFORMED: ±70%**



**PROJECT**

This project consisted of constructing a new 5 MGD Ultrafiltration Membrane Water Treatment Plant incorporating Zenon membrane equipment into a two-story concrete structure, including two (2) interior concrete pretreatment tanks with mixers; four (4) interior concrete membrane tanks, four (4) inline static mixers; chemical feed systems including Alum, Sulfuric Acid; Sodium Hypochlorite; Fluoride and Powdered Activated Carbon; a High Service Pump room with four (4) 400 H.P. high service pumps; a poured-in-place concrete clearwell and a 5000 square foot Administration/Maintenance area within the Treatment Building Complex that included a control room, laboratories, offices and other facilities. The Building Superstructure was constructed of architectural masonry and has a structural steel supported metal roof panel system. Additionally, there was a poured-in-place concrete two-compartment Residuals Clarification System. Site grading included the development of a site for a 500,000-gallon raw water storage tank, access road loop, two (2) lagoons and a polishing pond for solids retention on a 50-acre site. An instrumentation and control system was provided for fully automatic operation of the new plant including interface with the Raw Water Intake Pump Station and a Booster Pump Station.

**Water Authority of Dickson County**

121 South Main Street, Dickson, Tennessee 37055  
615.441.4188 Fax 615.441.9987



March 12, 2004

Mr. Mike Klien  
3D Enterprises  
3257 Lochness Drive  
Lexington, KY 40517

To Whom It May Concern:

3D Enterprises Contracting Corporation was the general contractor for the Water Authority of Dickson County's 5MGD enhanced coagulation membrane filtration plant on the Cumberland River in Dickson County Tennessee. The project was the first membrane plant to be constructed in the State of Tennessee.

A very tight construction schedule was required in order to bring the project on-line in the required time frame. 3D provided perhaps the best field personnel that I have worked with over the years. Both quality and schedule were maintained even through one of the wettest winters on record. Change orders were kept to a minimum and the project was completed within the projected budget.

The Water Authority of Dickson County will continue to include 3D Enterprises on a pre qualification list for future projects. Please contact me at (615) 441-4188 regarding any questions concerning this project.

Sincerely,

Lance Smith  
Technical Services Director  
Water Authority of Dickson County

