



ANDREW ERIBO, P.E. – OWNER AND PROJECT PRINCIPAL

Mr. Eribo has nineteen (19) years of diversified, progressive experience in civil, environmental and transportation engineering research, consulting and management. His responsibilities include client relations, project management, and engineering quality assurance and control. His specific experience has encompassed civil site projects; roadway and highway projects; municipal and industrial wastewater systems; storm water collection and retention treatment systems; water treatment plants, distribution and storage systems; landfill gas recovery projects and soil and groundwater remediation systems. Mr. Eribo has also served as an engineering author of contract specifications, and numerous operations, maintenance and training manuals for wastewater and water treatment processes. He is an active member of the American Society of Civil Engineers, American Water Works Association and the Water Environment Federation.

ABBREVIATED ENGINEERING EXPERIENCE & ASSIGNMENTS

1. Transportation Projects

City of Columbus, Ohio 2005 Area Wide Curb Ramp Improvements: Project Principal responsible for overall coordination, client service and engineering quality control on this project that involved improvements to alleviate drainage problems at nine (9) major and minor intersections within the City. The project included analysis of pavement profiles, design of new storm sewers, pavement rehabilitation, and coordination with other City Departments and Utility Agencies.

East 105th Street Bridge/Roadway Improvements ,Cleveland ,Ohio: Project Manager responsible for design and management for 1,000 LF of roadway improvements associated with this bridge project along Quincy Avenue and East 105th Street. REG's design effort included new vertical alignment (Crest vertical curve), horizontal alignment, two detail intersection design, preparation of plan and profile sheets, cross section sheets, maintenance of traffic and detour plan, general notes, utility relocation, traffic control and signing plans, typical sections, hydraulic computations and quantity calculations.

Cleveland Avenue/Edward Street Communication Conduit Improvements, Columbus State Community College, Columbus, Ohio: Project Manager in charge of design, management, construction administration and resident inspection for approximately 3,000 LF of communication duct bank within the college campus. The duct banks consisted of 4 to 8, 4" and 6" PVC conduits encased in concrete. The project included pavement replacement, utility relocations, the construction of several concrete vaults, and tunneling of a 36" steel carrier pipe approximately 25' below grade to convey the conduits under Cleveland Avenue.

2. Storm Water and Wastewater Collection Projects

Big Run South Sanitary Sewer Subtrunk, Columbus, Ohio: Project Manager responsible for the design and management for approximately 4,600 LF of 30" diameter concrete sewer along Big Run South Road from Alkire Road to I-270. The project involved utility relocations, and tunneling underneath Interstate 270. Provisions were also made to reconstruct the entire pavement section and improve drainage in the project area.

Cleveland Avenue Combined Sewer Rehabilitation Project, Columbus, Ohio: Project Manager responsible for design and management of this project involving the rehabilitation and replacement of approximately 4,000 LF of 8", 12", 15", 18", 24", 30", 48", and 54" diameter brick and concrete combined and storm sewers along Cleveland Avenue from State Route I-670 to Mount Vernon Avenue and Sixth Street. The improvements also involved the construction of numerous manholes and catch basins, entire pavement replacement, waterline replacements, and utility line relocations.



Deer Park Relief Sewer Project, Metropolitan Sewer District, Cincinnati, Ohio: Project Manager responsible for the design and management for approximately 4,500 LF of 18", 24", 30" and 36" diameter sewer to eliminate sanitary sewer overflows. The sewer shall be constructed in Galbraith Road, Matson Avenue, and Gail Drive. The project involved pavement replacement, utility relocations, etc.

Upper Scioto Area East Branch Sewer, Case Road to Martin Road Rehabilitation Project, Columbus, Ohio: Project Manager responsible for the report preparation, design and management of this project involving the rehabilitation of approximately 1,900 LF of 42" concrete aerial sewer with manholes. The aerial sewer is supported on concrete piers at 16' intervals and was rehabilitated by sliplining to correct leaking joints. Cured-In-Place Pipe Lining, sliplining with fiberglass and PVC pipe, and joint sealing utilizing rubber seals were some of the methods considered for rehabilitation.

Powell Ditch Improvements, Columbus, Ohio: Project Manager responsible for preparing a design study and detailed construction plans and specifications aimed at mitigating major structural and yard flooding problems along a mile stretch of Powell Ditch. During significant rainfall events Powell Ditch overflows its banks resulting in flooding damage. The study investigated several alternatives including rerouting existing storm water flow, removal/replacement of existing culverts, channel widening and deepening and channel slope stabilization. The drainage area was close to 1,000 acres in size. The SCS TR-55 method was used for hydrologic computations and the U.S. Army Corps of Engineers HEC-2 model for hydraulic computations.

Watkins Road and New World Drive Drainage Improvements, Columbus, Ohio: Project Manager responsible for preparing detailed construction plans and specifications to improve the poor drainage conditions in this area. The improvements primarily consisted of pavement replacement, regrading approximately 9,000 LF of roadside ditches, replacing several culverts, and expanding an existing detention basin. A preliminary study identifying several alternatives was prepared by REG prior to the initiation of the design phase. The estimated construction cost for the improvements is \$300,000.

Moler & Berkeley Roads Storm Sewer Project, Columbus, Ohio: Project Principal responsible for engineering quality insurance and on management of this project including approximately 3,500 LF of storm sewer, ranging in size from 15" to 36" diameter, regarding of roadside ditches and resurfacing of roadway. The project was to alleviate street and yard flooding.

3. Water Storage and Distribution Projects

Alum Creek Area Water Line Improvements, Columbus, Ohio: Project Manager responsible for the design and management of six (6) water line projects totaling over 10,00 LF. The projects will involve the construction of new 6", 8", and 12" lines, utility relocations, pavement replacement, abandoning existing laterals and services, reconnecting new services, valves, hydrants, etc.

River Road Phase III Water Main Improvements, Cincinnati, Ohio: Project Manager responsible for preparing detailed plans and specifications for approximately 10,000 LF of 36" diameter concrete water transmission main. The water main shall extend from Southside Avenue to Wisconsin Avenue and traverse parklands, creeks, and a railroad. REG is coordinating design efforts with Hamilton County officials, utility agencies, and several community associations.

Euclid Avenue Water Main Improvements, Cleveland, Ohio: Project Manager responsible for design and management of approximately 6,500 LF of 12" low service and 2,500 LF of 16" high service ductile iron water main along Euclid Avenue in downtown Cleveland. The project was designed as a part of the Euclid Corridor Streetscape Improvements. The project included fire hydrants, valves, cathodic protection, service taps, pavement replacement, utility relocations and traffic maintenance plans. The estimated construction cost for the project is \$2.0 million.



Mt. Hope, Strimple and Crosby Roads Booster Station and Water Main Improvements, Cincinnati, Ohio: Project Manager responsible for design and management of approximately 19,000 LF of 8" and 12" ductile iron water main improvements. The project was designed to supply water to the Crosby Township Area in the Water West Supply System. The project also included the design of two water booster stations to provide fire supply and increased pressures to outlying subdivisions in the hilly region. The stations were rated for a capacity of approximately 750 gpm each and consisted of three horizontal in-line submersible pumps in a buried concrete vault complete with valving, metering, and electrical SCADA control systems. The distribution system included fire hydrants, valves, pavement replacement, utility relocations, creek crossings, traffic maintenance plans, etc. The estimated construction cost for the project is \$2.0 Million.

Parma Water Reservoir and Pump Station Project, Cleveland, Ohio: Project Manager responsible for preparing plans and specifications for modifications to the pump station and reservoir. Improvements to the pump station included increasing the size of suction and discharge piping and valves for five (5) 10 mgd pumps. The project also included the construction of a concrete overflow/drainage structure for the reservoir, 1,000 LF of 42-inch pre-stressed concrete reservoir supply and discharge water transmission mains and valving, and approximately 2,000 LF of 18-inch reservoir drain line. Approximately 300 lineal feet of tunneling was required for the installation of the discharge main.

Queen Acres Water Storage Tank, Butler County, Hamilton, Ohio: Project Manager responsible for studying the Queen Acres water distribution system and preparing construction drawings and specifications for a 200,000 gallon elevated water storage tank. The village's distribution system was modeled with the CYBERNET hydraulic model. The model was used to determine areas of low pressure and the site for the water storage tank. Double ellipsoidal and pedestal style tanks were investigated for construction.

4. Landfill and Environmental Projects

Sanitary Landfill Gas Extraction System, Urbana, Ohio: Senior Project Engineer responsible for the design and construction coordination of the landfill gas recovery system to arrest methane gas migrating off the landfill. As part of the project, a gas extraction pilot study was conducted to determine gas flow rates, radii of extraction well influence, and the quality of the landfill gas. The final design included the installation of vertical gas extraction wells, monitoring wells, exhaust blowers, and a flare unit.

Groundwater and Soil Treatment Systems, New Hampshire Ball Bearing, Inc., Peterborough, New Hampshire: Project Engineer for the design of an air stripping tower and granular activated carbon columns for the removal of volatile organic compounds from the contaminated groundwater and soil at this superfund site.

Groundwater Treatment System, Laidlaw Waste Systems Inc. Sanitary Landfill, Adrian, Michigan: Project Engineer for the groundwater treatment system utilizing an aeration/air stripping tank to remove organic contaminants from the groundwater.

Leachate Pretreatment System, Laidlaw Waste Systems Inc. Sanitary Landfill, Bellefontaine, Ohio: Project Engineer responsible for the feasibility report and preliminary design of a leachate pretreatment system for this solid waste landfill. The system included aeration facilities and nitrification towers for organic and ammonia removal.

Senecaville Fish Hatchery Water Supply Pump Station and Main, Ohio Department of Natural Resources, Guernsey County, Ohio: Senior Project Engineer responsible for designing the pond water supply pump station and force main. The station was an above ground structure equipped with 25 and 40 hp pumps and supplied river water from a dam to the fish hatchery.



5. Wastewater Treatment Projects

City of Toledo, Ohio Bay View WWTP Wet Weather Treatment Grit Facility: Project Principal currently responsible for design and construction services for this \$14 million dollar 25,000 SF Grit Treatment Complex. The facility is being designed to treat wet weather flows up to a peak capacity of 232 mgd. The facility shall include two (2) mechanically-cleaned bar screens, one (1) screenings conveyor/compactor, six (6) 20-foot dia. X 25-foot deep vortex grit tanks, two (2) grit classifiers (washers), nine (9) grit pumps, a screenings and grit unloading area with roll-off containers, and an odor control system.

Southerly Wastewater Treatment Plant New Headworks Phase I, Columbus, Ohio: Project Manager for design services related to the extension of the existing Main Drain System and several large junction and diversion chambers for the 108" Plant Influent Sewer. The Main Drain System Extension included the installation of approximately 2,100 feet of 8" through 48" FRP piping and connected existing structures at the plant to the New \$60 Million Dollar Headworks Complex. The large concrete chambers/structures included two 30 ft. diameter x 25 ft. deep Inter-connector Sewer Inlet and Outlet Chambers, a 60 ft. diameter x 45 ft. deep Influent Junction Chamber, and a 36 ft. diameter. x 25 ft. deep Outfall Diversion Structure.

City of Toledo, Ohio Bay View WWTP Wet Weather Effluent Pumping Station: Project Principal responsible for design and construction services for this new 212 mgd effluent pumping station. The pumps shall be used to lift wastewater to the Maumee River during wet weather and/or high river stage events. The pump station shall consist of a large wet well structure and five (5) variable speed 300 hp vertical axial flow propeller pumps. The concrete structure for the pump station shall be partially buried and supported on piles. The estimated construction cost for the project is \$6 million dollars.

Jackson Pike Wastewater Treatment Plant Flushing/Dilution Water Improvements, Columbus, Ohio: Project Manager responsible for overall improvements to the existing flushing water system. A detailed design memorandum and plans and specifications were prepared for the improvements in 2001. The project involved the renovation and upgrade of two existing flushing/dilution water pump stations with strainers, the abandonment of an existing pump station and the installation of over 5,000 feet of 6" through 24" ductile iron piping throughout the plant. Each pump is rated for approximately 1,700 gpm and will be used for dilution and flushing water service. Each pump will be operated by a variable frequency drive. A comprehensive model of the flushing water system was developed using the CYBERNET 3.1 distribution model. The project was implemented to maintain adequate flow and pressures in the plant's flushing and dilution water systems.

6. Water Treatment Plant Projects

Water Treatment Plant Improvements Phase II, Defiance, Ohio: Senior Project Engineer responsible for the design of this conventional lime softening water treatment expansion. Responsibilities included coordinating the efforts of supporting design groups, and implementing the recommendations in the feasibility study. The project involved the provision of new low service and high service pump stations, pre-sedimentation basins, solids contact clarifiers, recarbonation basins, dual media filtration facilities, and numerous chemical feed systems. Project complications included maintaining treatment plant operation during construction and working within tight site constraints.

Richard Miller Water Treatment Plant, Cincinnati, Ohio: Project Manager/Engineer responsible for preparing a comprehensive equipment audit for this 220-mgd surface water treatment facility. The purpose of the audit was to assess the condition of major treatment plant equipment, develop a financial framework for making equipment upgrade decisions, and develop guidelines for prioritizing equipment upgrades. The audit was performed over a three-month period. Factors such as age, existing condition, reliability, and relative importance of the treatment process were used to prioritize equipment upgrades. Recommendations from the audit are expected to be included in the water treatment plant's ten-year capital improvement program.



PROFESSIONAL HISTORY

Owner/Principal Ribway Engineering Group Inc., Columbus, Ohio	May 1994 - Present
Project Manager/Senior Project Engineer URS Consultants Inc., Columbus, Ohio	November 1991 - April 1994
Project Engineer Jones and Henry Consulting Engineers Inc., Toledo, Ohio	June 1986 - October 1991

EDUCATION

BSc. Civil/Environmental Engineering, Cum Laude, June 1986, University of Toledo, Ohio
One year Masters Coursework in Chemical Engineering, University of Toledo, Ohio
MBA Coursework in Progress, Ohio State University, Columbus, Ohio

ACADEMIC HONORS

Graduation - Cum Laude
Outstanding Award Senior Capstone Project, Civil Engineering
Phi Kappa Phi National Honor Society, Tau Beta Pi Engineering Honor Society
National Deans List, Sophomore Year

REGISTRATION AND MEMBERSHIPS

Registered Professional Engineer - Ohio
Member – American Society of Civil Engineers, American Water Works Association, Water Environment Federation

CERTIFICATIONS

OSHA 40 Hr. Trained Hazardous Waste Site Worker
Confined Space Entry Training