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P.O. Box 72
Poplar Bluff, MO 63902
Phone 573.785.9621
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FILED
September 2, 2008
Data Center
Missouri Public
Service Commission

SMITH & CO.

ENGINEERS

August 7, 2008

Judge Harold Stearley
P.O. Box 360
Jefferson City, Missouri 65102

Re: **Affidavit for Preliminary Engineering Report
Stoddard County Sewer Company, MO**

Dear Judge Stearley,

This letter is to serve as an affidavit that I, Rodger Williams, P.E., am the principal engineer responsible for preparing the Engineering Report for the Stoddard County Sewer Company Wastewater System. This report was submitted to the Missouri Public Service Commission on June 30, 2008. The report was prepared with the assistance of senior engineer Dan Molloy, P.E. and Jacob Ortega, E.I.T. I have attached the resumes of the three key personnel involved with the development of the above mentioned report.

By my signature below, I certify that I have reviewed the above mentioned report and to the best of my knowledge and belief, all statements contained therein are true in substance and to the effect and to them I pledge my good faith.

We appreciate the opportunity to assist you with this project. If you have any questions, please contact me at 573-785-9621.

Sincerely,
SMITH & CO.
ENGINEERS



Rodger Williams, P.E.
Project Engineer

Attachment

Commission Exhibit No. 4
Case No(s) SC-2008-0289
Date 8-13-08 Rptr KF

ACKNOWLEDGMENT BY INDIVIDUAL

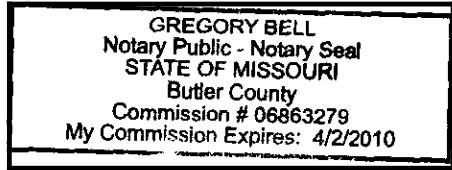
STATE OF MISSOURI)
)
COUNTY OF BUTLER) SS

On this 7th day of AUGUST, 2008, before me appeared Rodger Williams, personally known to me to be the persons who executed the foregoing instrument and acknowledged to me that they executed the same as their free act and deed.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my official seal in the county and state aforesaid the day and year written above.

Gregory Bell
Notary Public

My Commission Expires: 4/2/10



RODGER G. WILLIAMS II, P.E.

SUMMARY

Six years of professional experience in civil engineering. Broad range of project experience includes: water treatment, supply, distribution, and storage design; wastewater collection, pumping, and treatment design; wastewater disinfection; site development and planning; traffic design including, streets, roads, and bridges; preliminary engineering reports for various projects; construction inspection of various projects; airport ramp, runway and taxiway and fuel facilities. Experienced in project and construction management, contract administration, and cost control on projects with engineering and construction costs over \$1 million. Experienced in MDNR, NPDES, 404 and other permitting.

EDUCATION

Arkansas State University, B.S. Civil Engineering, 2002
Twin Rivers High School, Broseley, Missouri, 1995

EMPLOYMENT HISTORY

S.H. Smith & Company, Project Manager/ Project Engineer/Construction Inspector, 2002 to present
Associated Engineering and Testing, Laboratory Technician/Inspector, Summer 2001
S.H. Smith & Company, Laboratory Technician, 1998-2000

LICENSES, REGISTRATION, AND CERTIFICATION

Registered Professional Engineer: Missouri (2007002855)
ACI Certified Concrete Field Testing Technician
Nuclear Gauge Safety Training Course

AFFILIATIONS

American Society of Civil Engineers (ASCE): Associate Member
National Society of Professional Engineers (NSPE): Member
Missouri Society of Professional Engineers (MSPE): Member

PROFESSIONAL EXPERIENCE

Water Supply, Treatment, Distribution, and Storage

Wayne and Butler County PWS # 4 Water Line Extension, Lake Wapappello, Missouri (2007):
Design of plans and specifications for a three water main extensions to serve various small communities.

Stoddard County No. 6 Water Line Extension, Bernie, Missouri (2005): Design of plans and specifications for a water main extension to serve a small community.

Water System Improvements, Puxico, Missouri (2002-2003): Project Engineer and Assistant Resident Inspector for a water distribution system improvements project. Responsibilities included trouble shooting low pressure areas and evaluation of alternatives, design of water system improvements, preparation of design drawings and specifications, and occasional field inspection.

Leadington Sewer & Water Improvements, Leadington, Missouri (2002): Assisted in design of plans and specifications for improvements to an existing water and sewer system.

Wastewater Collection, Pumping, and Storage

PWSD #4 of Wayne and Butler Counties (2007): Project Manager and Design Engineer for the preparation of a Preliminary Engineering Report for the development of a new sewer district to serve the area around Lake Wapappello.

Lake Wapappello VFW Hall Recirculating Sand Filter, Lake Wapappello, Missouri(2007): Design plans and specifications for a recirculating sand filter to treat the sanitary sewer from an existing VFW Hall.

South 11th Street Sewer Extension, City of Poplar Bluff, Missouri (2005). Design of plans and specifications for a sewer extension serving a large unsewered area. Inspected project to ensure compliance with the plans and specifications. The project included adding approximately 4,400 feet of new 8" gravity sewer line, 18 manholes, and one 120 foot ditch crossing.

Sewer Improvements, Corning, Arkansas (2003): Project Engineer for detailed design and Resident Inspector of a \$1 million Sanitary Sewer Extension. Design included 18,000 linear feet of 8 inch PVC gravity sewer, 67 four foot diameter manholes, 166 service connections, 4 duplex pump stations, two simplex grinder pump stations, and 10,000 linear feet of 4 inch force main.

Wastewater Improvements, Winona, Missouri (2002-2003): Project Engineer for detailed design and Assistant Resident Inspector of a sewer extension and improvements to a wastewater treatment plant. Design included a duplex pump station, 23 simplex grinder pump stations, 14,000 linear feet of force main, and 4,000 linear feet of 8 inch PVC gravity sewer. The treatment plant was rehabilitated with a new ultra violet disinfection system and new filter media.

Poplar Bluff Sewer Extension, Poplar Bluff, Missouri (2002-2003): Resident Inspector for a Sanitary Sewer Extension that included approximately 29,000 gravity sewer line and 116 four foot diameter manholes. Responsibilities include daily field inspection, pay estimates, field log book, checking grade, and correspondence between Contractor and the City

Other Wastewater Projects:

Holly Trails Sewer Extension, City of Poplar Bluff, Missouri (2005)

Brumitt Sewer Extension, City of Poplar Bluff, Missouri (2004)

Bearden Street Sewer Extension, City of Poplar Bluff, Missouri (2004)

Chelsea Lane Sewer Extension, City of Poplar Bluff, Missouri (2004)

Woodland Hills Sewer Extension, City of Poplar Bluff, Missouri (2004)

Carrie Ann Circle Sewer Extension, City of Poplar Bluff, Missouri (2003)

Site Planning and Development

First Methodist Church Site Design, Poplar Bluff, Missouri (2007): Design Engineer for the project, which included; site grading, parking lot layout and design, and stormwater management plan. Assisted in obtaining all required permitting.

Memorial Baptist Church Site Design, Poplar Bluff, Missouri (2007): Design Engineer for the project, which included; site grading, parking lot layout and design, and stormwater management plan. Assisted in obtaining all required permitting.

Poplar Bluff Library Site Plan, Poplar Bluff, Missouri (2007): Design Engineer for the project, which included; site grading, parking lot layout and design, and stormwater management plan. Assisted in obtaining all required permitting.

N&W Site Plan, Poplar Bluff, Missouri (2007): Design Engineer for the project, which included; site grading, parking lot layout and design, and stormwater management plan. Assisted in obtaining all required permitting.

Manufactures Assistance Group – Site Plan, Poplar Bluff, Missouri (2006). Design Engineer for the project, which included; site grading, utility layout and design, stormwater management plan, parking lot layout and street design. Assisted in obtaining all required permitting.

Stone Crest Subdivision, Desloge, Missouri (2006). Design Engineer for the project, which included; utility layout and design, stormwater collection and management, street design, and lot layout for a 62 lot subdivision. Assisted in obtaining all required permitting.

Housing Authority Administration Building – Site Plan, Poplar Bluff, Missouri (2005). Design Engineer for the project, which included; site grading, utility layout and design, stormwater management plan, and parking lot layout. Assisted in obtaining all required permitting.

Casey's Commercial Development – Site Plan, Potosi, Missouri (2005). Design Engineer for the project, which included; site grading, utility layout and design, stormwater management plan, and street design. Assisted in obtaining all required permitting.

Other Site Development Projects:

Rick Brittingham – Site Plan, Poplar Bluff, Missouri (2007)
Malden Elementary School – Site Plan, Malden, Missouri(2006)
Dale's Motorcycle – Site Plan, Poplar Bluff, Missouri (2005)
Rone Parking Lot Improvements, Portageville, Missouri (2005)
Bluff Falls Water Park, Poplar Bluff, Missouri (2003)

Bridge Design

Madison County 537 Bridge, Madison County, Missouri (2007). Design Engineer for the project, which included; design of a 65 foot single span box beam bridge, road alignment, and obtained all required permitting.

Butler County 410 Bridge, Butler County, Missouri (2007). Design Engineer for the project, which included; design of a 115 foot three span box beam bridge, road alignment, and obtained all required permitting.

Stoddard County 772 Bridge, Stoddard County, Missouri (2006). Design Engineer for the project, which included; design of a 60 foot single span box beam bridge, road alignment, and obtained all required permitting.

Butler County 630 Bridge, Butler County, Missouri (2005). Design Engineer for the project, which included; design of a 130 foot three span box beam bridge, road alignment, and obtained all required permitting.

Eagle Sky Bridge and Drainage, Patterson, Missouri (2004). Design Engineer for the project, which included; design of a 150 foot three span box beam bridge, road alignment, and drainage along the connecting road.

Bridge Construction Inspection

Butler County 655 Bridge, Butler County, Missouri (2004). Resident Inspector for the project, which included; construction of a 150 foot three span box beam bridge, cast-in-place piles, and road alignment.

Streets, Roads, Airports, Walk Trails, and Drainage

Main Street Paving, Charleston, Missouri (2007): Design Engineer for project which included detailed plans and specifications for removal and replacement of asphalt pavement on Main Street.

Walk and Bicycle Trail Phase 1, Poplar Bluff, Missouri (2007): Design Engineer for project which included design of approximately 3 miles of asphalt trails on the south end of Poplar Bluff.

Qulin Drainage and Paving, City of Qulin, Missouri (2007): Design Engineer for project which included open ditch drainage using CMP for street and driveway crossings for the City of Qulin. This project also included an asphalt overlay on the streets in the City.

Right Angle Taxiway and Fuel System, Poplar Bluff Municipal Airport (2006-2007): Design Engineer for project which included detailed plans and specifications for construction of a right angle taxiway and installation of a new fuel system.

Corning Drainage, City of Corning, Arkansas (2004): Design Engineer and Resident Inspector for project which included open ditch drainage using CMP for street and driveway crossings.

Apron and Ramp Improvements, Poplar Bluff Municipal Airport (2004): Design Engineer for project which included detailed plans and specifications for improvements to an existing ramp and apron.

Runway Slurry Seal and Markings Improvements, Poplar Bluff Municipal Airport, Missouri (2004): Design Engineer for project which included detailed plans and specifications for improvements to an existing ramp and apron.

Velma Street Improvements, City of Poplar Bluff, Missouri (2002): Design Engineer for project which included the realignment, drainage improvements, and paving of an existing gravel street in the City.

Other Streets, Roads, Airports, and Drainage Projects:

Kiwanis Club -- Bacon Park Stormwater, Poplar Bluff, Missouri (2007)

Mills Iron and Supply Stormwater, Poplar Bluff, Missouri (2007)

Schaller Hardwood Stormwater, Poplar Bluff, Missouri (2006)

Jennifer Adamson Stormwater, Poplar Bluff, Missouri (2006)

Wayne Medical Center, Piedmont, Missouri (2006)

High Street Improvements, City of Poplar Bluff, Missouri (2005)

Simmons Tire Stormwater, City of Poplar Bluff, Missouri (2005)

"F" Street Drainage, City of Poplar Bluff, Missouri (2004)

Continuing Education Courses:

- Vandeventer Engineering Open House -- Technician Sessions (2007)
- PLC's for Electricians (2007)
- Lemtec Modular Insulated Covers & Lemna Polishing Reactors (2007)
- MWEA/MAWWA Technical Sessions (2007)
- The Application of Ethics in the Practice of Engineering (2006)

DANIEL M. MOLLOY, P.E.
Rt. 3 Box 11211
Doniphan, Missouri
dpmolloy@semo.net

SUMMARY

Over thirty-two years of professional experience in civil engineering. Broad range of project experience includes: water treatment, distribution, and storage design; wastewater collection, pumping, and treatment design; water and wastewater disinfection, computer modeling of water systems; site planning and design; geotechnical exploration and foundation design; soil property characterization and laboratory testing; bridge design; and design and construction of gas spill remediation systems. Teaching experience includes: instructor of basic engineering courses at local community college; and director of water and wastewater related seminars. Experienced in project management, contract writing and administration, and cost control. Strong analytical capabilities and excellent communication skills.

EDUCATION

Defense Language Institute, Washington D.C, Turkish Language Training, 1969 to 1970
University of Missouri-Rolla, B.S., Civil Engineering, 1976

MAJOR EMPLOYMENT HISTORY

S.H. Smith & Company, Project Engineer, 1976 to present
Three Rivers Community College, Part Time Instructor, 1988 to 1998
United States Air Force, Turkish Linguist, 1968 – 1971
Midwest Pool Management – St. Louis, Swimming Pool Maintenance Repairs, and Management – 1965 to 1968

LICENSES, REGISTRATION, AND CERTIFICATION

Professional Engineer: Missouri (E-19634), Arkansas (11213), Indiana (PE19600548), and Alabama (21314)
Class A Wastewater Operator: Missouri (5575).

AFFILIATIONS

National Society of Professional Engineers (NSPE): Member
Missouri Society of Professional Engineers (MSPE): Member

PUBLICATIONS

Richardson, David N., Stephenson, Richard W., and **Molloy, Daniel** (1987). "Soil-Shrinkage Induced Structural Failure." *Journal of Performance of Constructed Facilities*, Vol. 1, No. R, November.

MAJOR PROFESSIONAL EXPERIENCE

Water Treatment, Distribution, Disinfection, and Storage Experience

Anniston Water Distribution, Disinfection, and Storage, Anniston, Missouri (2005).

Project Manager and Engineer of Record for a project which includes: the replacement of most of the City's water lines, looping the lines for better flows and pressures, the rehabilitation of an old water tank, and disinfection facilities.

Poplar Bluff Water Treatment Upgrade Report, Poplar Bluff, Missouri (2005).

Project Manager and Engineer of Record for a project which includes the preparation of a detailed report on the City's present and future water needs which have changed as a result of changes in State regulations on the treatment of surface water. Report covers needed changes in plant operation, needed additions and modifications, and possible alternate sources of water.

Marston Water System Improvements, Marston, Missouri (2005).

Peer review and consultation on a project which included a new water supply well and an iron and manganese removal treatment plant.

East Prairie Water Treatment, Storage, and Distribution, East Prairie, Missouri (2003 to present).

Project Manager, Designer, and Engineer of Record for a project which included four water supply wells, an iron and manganese removal treatment plant, gaseous chlorination facilities, several water line extensions, and a new water storage tank. Performed system start-up and troubleshooting.

Puxico Water Improvements, Puxico, Missouri (2003).

Peer Review and consultation for a project which included deepening an existing water supply well, looping and replacement of water lines, and control instrumentation.

Dudley Water System Improvements, Dudley, Missouri (2002).

Peer Review and consultation for a project which included the replacement and looping of most of the City's water lines, rehabilitation of the iron and manganese removal treatment plant, and disinfection facilities.

Charleston Water Treatment and Storage, Charleston, Missouri (2001)

Peer Review and consultation for an iron and manganese removal treatment plant and a new water storage tank. Performed system start-up and troubleshooting.

Bloomfield Water System Improvements, Bloomfield, Missouri (2000-2001).

Peer review and consultation on a project which included a new water supply well and an iron manganese removal treatment plant.

Cooter Water System Improvements, Cooter, Missouri (2002). Peer Review and consultation for a project which included the replacement and looping of most of the City's water lines, the demolition of an existing water tank, and the construction of a new water tank.

Hayti Heights Water System Improvements, Hayti Heights, Missouri, (2003) Project Manager, Designer, and Engineer of Record for a project which included the replacement of a water supply well, aeration and settling facilities, complete repiping of a pressure filter system, complete revamping of the electric control system, and disinfection facilities.

Williamsville Water Improvements, Williamsville, Missouri (????) Project Manager and Engineer of Record for a project which included disinfection facilities for two water supply wells.

Naylor Water System Improvements, Naylor, Missouri. (1999) Project Manager, Designer, and Engineer of Record for a project which included the replacement of all of the water lines in the City, construction of a new water tank, and a new water supply well. .

Gideon Water System Improvements, Gideon, Missouri (1997) Project Manager, Designer, and Engineer of Record for a project which included looping and replacement of water lines and a new well house.

Haiti Pump Project, near Leogane, Haiti (1996). Designed and participated in the construction of a hydraulic ram pump and water lines which were used to irrigate approximately 25 acres of land.

Whitewater/Allenville Water System Improvements, Whitewater and Allenville, Missouri (1996). Peer Review and consultation for a project which included new water lines, a disinfection facility, and the construction of a new water tank.

Gideon Emergency Water System Disinfection Project, Gideon, Missouri (1994). Project Manager, Designer, and Engineer of Record for a project which included disinfection facilities for the City's wells. This project received an emergency grant from the Department of Economic Development as a result of the deaths of five elderly residents. The deaths were caused by a contaminated water system.

Poplar Bluff Water Treatment Project, Poplar Bluff, Missouri (1993). Project Manager, Designer, and Engineer of Record for a project which included a new surface water treatment plant, rehabilitation and repiping of three sand filters, disinfection

facilities, and high service pumps. Inspected construction of entire project.

Ripley County PWS #2 Water Improvements Project, Ripley County, Missouri (1991). Project Manager, Designer, and Engineer of Record for a project which included water line replacements, a new water tank, water supply well renovations, a well house, and disinfection retention basin facilities.

Doniphan Water Improvements, Doniphan, Missouri (1982 to present). Project Manager, Designer, and Engineer of Record for a various projects which included water line extensions, a water storage tank, disinfection facilities, and a new water supply well.

Van Buren Water Improvements, Van Buren, Missouri (1976 to present). Project Manager, Designer, and Engineer of Record for a various projects which included water line replacements and extensions, disinfection facilities, and two new water supply wells.

Ellsinore Water Improvements, Ellsinore, Missouri (1982 to present). Project Manager, Designer, and Engineer of Record for a various projects which included water line replacements and extensions, a water storage tank, disinfection facilities, and a new water supply well.

Ellington Water Improvements, Ellington, Missouri (1978). Project Manager, Designer, and Engineer of Record for a project which included: water line extensions, a water storage tank, and electric controls.

Water Line Extension Projects, Southeast, Missouri (1976 to present) Project Manager, Designer, and Engineer of Record for dozens of water line extensions ranging in length from less than 100 feet to over a mile.

Wastewater Collection, Pumping, Treatment, and Disinfection Experience

Essex Wastewater Improvements, Essex, Missouri (1976 to 1977). Inspector for a project which included a City-wide collection system; an aerated lagoon with rock filter polishing cells; the construction of an aeration system, blowers, and blower building; three sewage pump stations; start-up, troubleshooting, and a detailed operation and maintenance manual.

Van Buren Wastewater Improvements, Van Buren, Missouri (1979 to 1983). Designer and Inspector for a project which included a highly detailed engineering report; an infiltration/inflow study; an advanced wastewater treatment plant consisting of an oxidation ditch, clarifiers, sludge pumping, sludge drying, filtration, and chlorination; a building to house the filter, laboratory, and electric controls; a new duplex sewage pumping station; a backup generator; start-up, troubleshooting, and the preparation of a detailed operation and maintenance manual. The project was awarded additional grant funds for innovative design. Solar panels are used to heat hot water for the building. Treated wastewater is used as a heat source/sink for the building's heat pump. The plant and its operator have received several state-wide awards.

Ellsinore Wastewater Improvements, Ellsinore, Missouri (1984 to 1988). Peer Review and consultation for a project which included a highly detailed engineering report; a wastewater treatment plant consisting of an oxidation ditch, clarifiers, sludge pumping, and sludge drying; a building to house the laboratory and electrical equipment, a duplex effluent pumping station, and electric controls; a City-wide collection system, septic tanks and service lines for all residences; a new duplex sewage pumping station; a backup generator; start-up, troubleshooting, and the preparation of a detailed operation and maintenance manual. The project was awarded additional grant funds for innovative design. Septic tanks allowed the collection system lines to be six-inch rather than eight-inch diameter. The pretreatment afforded by the septic tanks allowed the plant to be designed for a reduced loading.

Naylor Wastewater Improvements, Naylor, Missouri (1979 to 1983). Primary Designer and Peer Review for a project which included a highly detailed engineering report; a wastewater treatment plant consisting of an oxidation ditch, clarifiers, sludge pumping, and sludge drying; a building to house the laboratory and electrical equipment, a duplex effluent pumping station, and electric controls; a City-wide collection system, four new duplex sewage pumping station; a backup generator; start-up, troubleshooting, and the preparation of a detailed operation and maintenance manual.

Poplar Bluff Wastewater Improvements, Poplar Bluff, Missouri (1979 to 1983). Designer and Peer Review for a project which included a highly detailed engineering report; an infiltration/inflow study; closure of two wastewater lagoons; the elimination of over eight pumping stations; a wastewater treatment plant consisting of an aerated lagoon, blowers, a triplex headworks pumping system, comminuters, a building to house the blowers, headworks pump motors, laboratory and electrical equipment, and a backup generator; a triplex sewage pumping station and electric controls; start-up, troubleshooting, and the preparation of a detailed operation and maintenance manual. Design of the project was the combined effort of three engineers, an architect, and an

electrical consultant.

Puxico Wastewater Improvements, Puxico, Missouri (1981 to 1984). Peer Review and consultation for a project which included a highly detailed engineering report; an infiltration/inflow study; a wastewater treatment plant consisting of a deepened and modified lagoon, an aeration system, and electric controls; a duplex sewage pumping station; start-up, troubleshooting, and the preparation of a detailed operation and maintenance manual.

Arbyrd Wastewater Improvements, Arbyrd, Missouri (1981 to 1984). Peer Review and consultation for a project which included a highly detailed engineering report; a wastewater treatment plant consisting of a facultative lagoon; a City-wide collection system; a duplex sewage pumping station; and the preparation of a detailed operation and maintenance manual.

Piedmont Wastewater Improvements, Piedmont, Missouri (1988 to 1989). Design, Peer Review and consultation for a project which included; a wastewater treatment plant consisting of a deepened and modified lagoon, blowers, a blower building, and a duplex sewage pumping station.

Kennett Wastewater Improvements, Kennett, Missouri (1991 to 1993). Design, Peer Review, and consultation for a project which included a detailed engineering report; a wastewater treatment plant consisting of a deepened and modified lagoon; an aeration system, blowers, a blower building; renovation of one sewage pump station; replacement of two sewage pump stations; a duplex sewage pumping station; and the preparation of a detailed operation and maintenance manual.

Charleston Wastewater Improvements, Charleston, Missouri (2003). Project Manager, Designer, and Engineer of Record for a project which included a wastewater treatment plant consisting of a deepened and modified lagoon, an aeration system, blowers, and a blower building;

East Prairie Wastewater Improvements, East Prairie, Missouri (2004). Project Manager, Designer, and Engineer of Record for a project which included a wastewater treatment plant consisting of a deepened and modified lagoon, an aeration system, blowers, and a blower building;

Doniphan Pump Station Replacement, Doniphan, Missouri (1982). Project Manager, Designer, and Engineer of Record for a project which included the construction of a new main pump station for the City. The old pump station was badly damaged during

recording flooding of the Current River.

r System Improvements, Advance, Missouri (1999-2002): Peer Review and consultation for a project which included a of 3-cell facultative lagoon, pump station upgrade, and closure of existing wastewater treatment plant.

Williamsville Sewer System Rehabilitation, Williamsville, Missouri (1982). Project Manager and Engineer of Record for a project which included: television and smoke testing of sewer lines; repairs to damaged lines; sewage pump station and force main upgrades.

Poplar Bluff Unsewered Areas Project, Poplar Bluff, Missouri (1998 to present). Project Manager and Engineer of Record for a multiple projects which included the construction Sewer extensions and sewage pump stations.

Winona Wastewater Improvements, Winona Missouri (2004 to present). Project Manager and Engineer of Record for a project which included: the construction new sewer lines and sewage pump stations to serve unsewered areas of the City; a treatment plant upgrade consisting the addition of a new automatic filter, renovating an old filter, substantial changes to the plant piping and hydraulics, and a new ultraviolet disinfection system.

East Prairie Sewer Rehabilitation Project, East Prairie, Missouri (2005 to present). Project Manager and Engineer of Record for a project which included nine-hundred feet of cured-in-place plastic pipe and three hundred feet of standard sewer line. This is a fairly new technology for Southeast Missouri. It allows sewer lines to be repaired without any excavation or other surface disturbances.

Site Planning Experience

Site Plans (1993 to present). Project Manager, Designer, Engineer of Record and Peer Review for projects which included the design of grading and paving plans, utilities, storm water detention, and several lighting and irrigation systems. Clients have included Poplar Bluff Industries, Home Depot, Ryan's Steakhouse, Sonic Drive In, Kerasotes Theaters, Briggs and Stratton, the Missouri National Guard, the State of Missouri, Poplar Bluff School District, Potosi School District, Farmington School District, Doniphan School District, Herculanum School District, the City of Poplar Bluff, the First Assembly of God Church, Stoddard County, Butler County, the City of Doniphan, the City of East Prairie, and private developers.

Bridge Experience

Bridges, Southeast Missouri, (1989 to present) Engineer of Record and Peer Review for projects which included the construction of dozens of bridges in Southeast Missouri. The Bridges range in size from small simple single span to complex multiple span structures. Concrete I-beam, T-beam, and box beam have been used for deck support. Foundations have consisted of footings keyed into rock, driven piles, and drilled piers. Bridges have been constructed in the following Counties in Missouri: Iron, Madison, Cape Girardeau, Bollinger, Wayne, Stoddard, Mississippi, and Dunklin.

Geotechnical Experience

Geotechnical Projects, (1978 to 1993) In charge of all soils, asphalt, and concrete testing. Also in charge of quality control projects and subsurface explorations. Prepared reports on quality control projects. Also prepared over one-hundred geotechnical reports for projects all over Southeast Missouri.

Additional Engineering Experience

Middle River Land Reclamation Project, Calaway County, Missouri (1991). Designer and Peer Review for a project which included the design of work needed to reclaim open pit coal mines and ponds. The highly acidic ponds were neutralized. Several hundred acres of open pits and spoil piles were landscaped and revegetated.

Plan, Poplar Bluff, Missouri (1993): Project Manager and Engineer of Record for a project which included: the design of paving and grading plans for a new Justice Center (jail). Project also included the design of a pedestrian tunnel under U.S. Highway 67. The tunnel connects the Justice Center and the Butler County Courthouse and allows for more secure movement of prisoners between the two facilities..

Van Buren Boat Landing, Van Buren, Bluff, Missouri (2002): Designer and Peer Review for a project which included: the design of paving and grading plans for a new canoe and boat landing on the Current River.

Material Estimator (1987 to 1993). Retained by prominent local contractor to do material projects. take-off

Environmental Remediation Projects (2003 to present). Designed and assisted in construction of liquid/vapor vacuum extraction devices, water gas separators, and dissolved phase aeration systems. One unit is in operation and is discharging treated water at pollutant levels below those required in its NPDES Permit. Two others are under construction.

Teaching Experience

Three Rivers Community College, Poplar Bluff, Missouri (1988 to 1998). Instructor of evening

Seminars (1994 to present). Organizer and speaker at Smith and Company sponsored seminars for water and wastewater operators. Courses have been approved for continuing education credit for operators in Missouri and Arkansas. Course topics have included: basic and advanced electrical systems; coating systems; pumps; pipe valves and fittings; sewer construction methods; water wells; basic and advanced water treatment methods; basic and advanced wastewater treatment systems; disinfection systems; and utility finances.

Computer Modeling Experience

Computer Analysis (1975 to present). During senior year at the University of Missouri wrote a program based on the Hardy Cross method for analyzing flows in piping networks. Since then have used hydraulics programs, particularly those marketed by Haestadt Methods to model water, sewer, and drainage systems. The most complex of these models was one prepared for a pumping system in East Prairie, Missouri. It modeled the performance of five sewage pumping stations sharing a common forcemain. Upon completion of construction the stations were found to be behaving as predicted. Several complete water systems have also been modeled.

1048 County Road 526
Poplar Bluff, MO. 63901

Phone: 573-718-3122
E-mail: ortega.jacob@gmail.com

Jacob Ortega

Education

- 1993 – 1997 *George W. Brackenridge H.S.* *San Antonio, TX.*
High School Diploma.
- 1998 - 2004 *San Antonio College* *San Antonio, TX.*
Associate in Science, Physical and Natural Science, December 2003
Cumulative GPA: 3.25
- 2004 - 2007 *University of Texas at San Antonio* *San Antonio, TX.*
Bachelor of Science Degree in Civil Engineering.
Graduated May 12, 2007. Cumulative GPA: 3.17.
Recognized as Engineer-In-Training (EIT) by Texas Board of Professional Engineers June 26, 2007.

Work experience

- 2007 – Present *S.H. Smith & Co, Inc.* *Poplar Bluff, MO.*
Design Engineer

Over one year of experience as a design engineer having worked on several preliminary engineering reports and final design projects in the field of civil engineering. The majority of my time with Smith & Co. has been spent working on drinking water and wastewater system adjustments and rehabilitation.

ENGINEERING EXPERIENCE:

Birch Tree Wastewater Treatment Plant Engineering Report, Birch Tree, Missouri (2008)

Assisted by performing needed technical and field research for the engineering report and completed initial drafts. I also assisted in the preparation of all cost estimates.

Wayne County PWS No. 2 Emergency Grant II Engineering Report, Patterson, Missouri (2008)

Assisted by performing needed technical and field research for the engineering report and completed initial drafts. I also assisted in the preparation of all cost estimates.

Birch Tree Utility Relocations, Birch Tree, Missouri (2007)

Assisted in design of plans and preparation of technical specifications for the relocation of the area's water and sewer lines in preparation for the expansion of Highway 60 to four lanes.

Highway 67 Utility Relocation - Lodi, Lodi, Missouri (2007)

Assisted in design of plans and preparation of technical specifications for the relocation of the area's water lines in preparation for the expansion of Highway 67 to four lanes.

Highway 67 Utility Relocation - Silva, Silva, Missouri (2007)

Assisted in design of plans and preparation of technical specifications for the relocation of the area's water lines in preparation for the expansion of Highway 67 to four lanes.

Cape LaSalle Ave, Cape Girardeau, Missouri (2007)

Assisted in design of culvert sizes and plan view layouts for the entire storm water system underneath the proposed roadway.

Dominion - Eagle Sky Sewer, Patterson, Missouri (2007)

Assisted in design of an entire land application system including piping and sprinkler layouts as well as the lagoon sizing and configuration.

2002 - 2007

USAA

San Antonio, TX.

Policy Service Representative

I was a licensed auto insurance first line underwriter and policy service provider focused on customer service for our association's members.

1996 - 2004

U.S. Army Reserves

San Antonio, TX.

Sergeant and squad leader for 91R section [Food Inspection].

I developed and oversaw training for our unit's section, which was part of a U.S. Army reserve hospital. My service in the U.S. Army produced my strong work ethic and ability to pay close attention to important details.

1998 - 2001

West Corporation

San Antonio, TX.

Section Leader

I entered West as an inbound phone representative processing orders for products and services. I then became a section leader, where I assisted phone representatives with questions and provided quality assurance for the company.

1996 - 1998

Church's Chicken

San Antonio, TX.

Restaurant Team Member

My job requirements included customer service as well as cooking, cleaning, and cashier responsibilities. Even before graduating from high school I learned the importance of multi-tasking.