

Town of Boonville
August 7, 2018, Regular Meeting Minutes
Harvey E. Smith Municipal Building

The following were in attendance at the 8/7/18 regular meeting: Mayor Pro-Tem William Paul Baity, Commissioners Devin Carter, Bonnie Lasky, and Tony Reece. Also in attendance were Town Administrator Sarah Harris, Finance Officer/Town Clerk Kim Wells, Police Chief Chuck Evitt and Public Works Director Jeff Jones. Mayor Rusty Hunter was absent.

- I. Call to Order and Welcome:** Mayor Pro-Tem Baity called the 8/7/18 meeting to order at 7:02 p.m.
- II. Conflict of Interest Issues and Approval of Agenda:** Town Administrator Harris suggested adding Invoice for Southern Software and Garbage Pickup issue to New Town Business, Sections G and H. Commissioner Lasky motioned to approve the agenda as amended. Commissioner Reece seconded, and the motion passed unanimously.
- III. Adoption of minutes: 6/5 regular session, 6/5 closed session, 5/9 recessed, 6/14 public hearing, 6/14 recessed, 6/14 closed session:** Commissioner Lasky motioned to adopt the minutes of 6/5 regular session, 6/5 closed session, 5/9 recessed, 6/14 public hearing, 6/14 recessed, and 6/14 closed session minutes. Commissioner Carter seconded, and the motion passed unanimously.
- IV. Public Comments:** Mr. Walter Mathis, 204 N. Carolina Ave., notified the Board members of the excessive water and sewer bill his mother-in-law received due to an issue with a toilet in her bathroom. Mr. Mathis stated that because of the Town's policy, there was no adjustment allowed on her bill. Mr. Mathis indicated that other local municipalities allow for adjustments to a resident's water and sewer bill in these instances and requested that the Board members change the Boonville policy to include toilets. Mr. Mathis also discussed the water run-off issue at his home and stated that Department of Transportation (DOT) personnel had informed him that a storm drain needed to be installed on Key St. Mr. Mathis asked why this project had not been completed since funds had been allocated.
- V. Old Town Business:**
 - A. Update on Water and Sewer Projects:** Public Works Director Jones reported on an option to purchase land giving the town road access to the new well site. Discussion followed. It was stated by Mr. Jones that an agreement should be put into place allowing the farmer to continue to have access to his crops using this road. Commissioner Lasky motioned to revise the contract to a cost of \$12,500 to include the road and prepare an agreement with the seller that the leasee can access the farm road. Commissioner Reece seconded, and the motion passed unanimously.
- VI. New Town Business:**
 - A. Resolution for Mutual Aid Agreement:** Town Administrator Harris reported on a resolution to allow the Boonville Police Department to enter into agreements with other agencies. It was stated that retired Chief Jester had discussed this previously, but a resolution had not been adopted. Commissioner Reece motioned to adopt the resolution. Commissioner Lasky seconded, and the motion passed unanimously.
 - B. Consolidated Pipe & Supply Quote for Public Works:** Public Works Director Jones presented the Board members with a list of supplies he needed to replenish his inventory. He stated these supplies could last up to 6 months. Commissioner Lasky motioned to approve the quote from Consolidated Pipe for \$3,761.15 out of water and sewer supplies. Commissioner Carter seconded, and the motion passed unanimously.
 - C. Annexation Request:** Town Administrator Harris reviewed an annexation request from Worth Shover, 2529 Woodruff Rd. She explained that Mr. Shover had received Special Use Permit for his business. Discussion followed. The property does have water, but sewer service is not available. Commissioner Lasky motioned to adopt Resolution# 2019-2, Accepting the Certificate of Sufficiency and Fixing Date of the Public Hearing to 9/4 at 6:45pm. Commissioner Carter seconded, and the motion passed unanimously.
 - D. Feasibility Study on System Consolidations:** Town Administrator Harris reported that Yadkin County had contracted for a feasibility study to be conducted on system consolidations. It was the consensus of the Board members that the Town of Boonville participate as needed.
 - E. Engineering Services Contract for the Waste Water Treatment Plant:** Town Administrator Harris stated that she had forwarded the contract to the Town's attorney for review. The estimated engineering cost to complete the project was estimated to be \$90,000-\$120,000. She stated that there were two other applicants. After scoring the applications, WithersRavenel was the most

qualified. Once the contract is signed, the engineer will present cost options to the Board members at the next meeting. Commissioner Reece motioned to enter into a contract with WithersRavenel, pending attorney review and any revisions. Commissioner Lasky seconded, and the motion passed unanimously.

- F. **Surplus of Public Works Equipment:** Public Works Director Jones presented a proposed resolution to surplus various equipment. Discussion followed. Commissioner Lasky motioned to approve Resolution #2019-2 with a \$5,000 reserve on the Waukesha engine. Commissioner Reece seconded, and the motion passed unanimously.
- G. **Invoice for Southern Software:** Police Chief Evitt presented an invoice from Southern Software for the annual renewal of the RMS system. Funds were already budgeted. Commissioner Reece motioned to pay the invoice. Commissioner Lasky seconded, and the motion passed unanimously.
- H. **Garbage Pickup Issue:** Finance Officer/Town Clerk Wells informed the Board members of an issue brought to her attention by Mr. Donnie Vestal, 529 East Main St. Mr. Vestal discovered that he has been charged for both residential and commercial trash service although he only uses residential service. He indicated that when Waste Management brought out the cans, he told them to remove the second set. Mrs. Wells stated that the total collections for the second set was \$394.45. Discussion followed on the GPS tracking system on the Waste Management trucks. It was the consensus of the Board members to refund Mr. Vestal \$394.45 if Waste Management can verify that they do not have two pick-up services at that location.

VII. Reports and announcements:

- A. **Mayor's report:** Mayor Pro-Tem Baity had no items to report for Mayor Hunter.
- B. **Town Administrator's report:** Town Administrator Harris announced that there would be a formal ceremony to swear in Chief Evitt. She reviewed the current year budget. Ms. Harris stated that there would be a presentation on the Economic Development Strategic Plan at the next Board meeting. She also reported she had been contacted regarding an issue regarding road maintenance in the Stone Crest development. However, Ms. Harris could find no documentations or mention of the topic in any minutes.
- C. **Finance Officer's report:** Finance Officer Wells reported on her predictions on the status of the budget at the end of Fiscal Year 2017. She reminded the Board members that figures would probably change. She will have more accurate figures when Charles Scott does the financials sometime in September. Mrs. Wells reported that the 2003 Ford Crown Victoria had sold through GovDeals with a profit of \$1,271.88.
- D. **Public Works Director's report:** Public Works Director Jones reported that trash cans are being left out for prolonged periods of time. Although two phone tree messages have been sent, the issue continues. Next step will be to put labels on the offenders' cans. Mr. Jones reported that Rural Water personnel had assisted in finding a water leak. Once all work is completed on NC 67, the road and sidewalk will be repaired.
- E. **Police Chief's report:** Police Chief Evitt reported on the progress in the investigation regarding recent break-ins, and that he had conducted a program and presentation for the children at the Boonville Community Public Library. He plans to update and have a larger presence on the Police Department's Facebook page. Chief Evitt informed the Board members that a representative from EMS will attend the next Board meeting with information needed to prepare a State of Emergency ordinance, which is required if the Town of Boonville were to need funding for disaster relief. Commissioner Lasky requested that information be included in the Commissioner's binders.
- F. **Departmental Commissioner's Reports:** The Board members discussed the Speer property on West Main Street. Commissioner Lasky asked the Board members if Mrs. Speer could be contacted to propose an agreement where the Town of Boonville would have first right of refusal to purchase the building. It was the consensus of the Board members that Mrs. Speer could be contacted regarding the proposal.
- G. **Committee reports as needed:** Debbie Cooper, Secretary/Treasurer, BBDDA reported on the last cruise-in. She informed the Board members of the date of the upcoming Community Yard Sale and the Boo Bash on Halloween. The Board members discussed allowing outside residents opportunities to set up for the yard sale in town. The Board members agreed that the BBDDA would be able to use the Town's vacant lot and sub-lease spots to inside and outside residents.

Commissioner Reece discussed Mr. Mathis' request regarding his mother-in-law's water bill. Discussion followed. The Board members asked Town Administrator Harris to research other local municipalities' policies and report at the next Board meeting.

VIII. Closed Session per NCGS 143-318.11(a)(6): Commissioner Lasky motioned to go into closed session per NCGS 143-318.11(a)(6). Commissioner Carter seconded, and the motion passed unanimously at 8:11 p.m.

Commissioner Lasky motioned to ratify Chief Evitts salary of \$53,000 per year and transfer his sick leave from Reidsville, and on anniversary of his 5th year transfer his sick leave from Bald Head Island. Commissioner Reece seconded, and the motion passed unanimously.

Commissioner Lasky motioned to ratify Farron Jester's retirement date of 5/31/18. Commissioner Carter seconded, and the motion passed unanimously.

Commissioner Lasky motioned to accept Stephen Slate's resignation as a full-time employee and continue as part-time employee at a rate of \$12.00 per hour. Commissioner Reece seconded, and the motion passed unanimously.

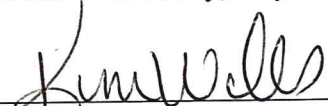
Commissioner Lasky motioned advertise for a Police Officer. Commissioner Reece seconded, and the motion passed unanimously.

Commissioner Lasky motioned to approve a stipend of \$50.00 per month for Police Chief Evitt's phone. Commissioner Carter seconded, and the motion passed unanimously. It was the consensus of the Board members that the \$50 stipend was be retroactive to Chief Evitt's hiring date.

IX. Recess/Adjourn: Commissioner Lasky motioned to recess until 6:30 p.m. on 9/4 for a presentation of the State of Emergency Plan. Commissioner Carter seconded, and the motion passed unanimously. The meeting adjourned at 9:17 p.m.



William Paul Baity, Mayor Pro-Tem



Kim Wells, Finance Officer/Town Clerk

**RESOLUTION ADOPTING A POLICY FOR MUTUAL ASSISTANCE
WITH OTHER LAW ENFORCEMENT AGENCIES**

WHEREAS, pursuant to North Carolina General Statutes 160A-288, the governing body of a city may adopt appropriate guidelines for the purpose of mutual assistance with other municipal and county law enforcement agencies; and

WHEREAS, pursuant to said laws, the law enforcement assistance to be rendered authorizes lending officers to work temporarily with officers of the requesting agencies, including in an undercover capacity, and lending equipment and supplies; and

WHEREAS, it is deemed to be in the best interests of the citizens of Boonville to adopt a reasonable policy and guidelines whereby reciprocal law enforcement assistance can be both rendered to and obtained from other governmental jurisdictions; and

WHEREAS, such reciprocal assistance is necessary for the effective law enforcement for the protection of the citizens of Boonville;

NOW, THEREFORE, BE IT RESOLVED BY THE BOONVILLE TOWN BOARD, THAT:

1. The Chief of Police is hereby authorized to enter into mutual assistance arrangements with other municipal and county law enforcement agencies, provided that the head of the requesting law enforcement agency makes such a request in writing.
2. The Chief of Police is hereby authorized to permit officers of the Boonville Police Department to work temporarily with officers of the requesting agency, including in an undercover capacity, and the Chief of Police may lend such equipment and supplies to requesting agencies as he/she deems advisable.
3. All such request and authorizations shall be in accordance with North Carolina General Statute's 160A-288, as applicable.
4. While working with a requesting agency, an officer shall have the same jurisdiction, powers, rights, privileges, and immunities (including those relating to the defense of civil actions and payment of judgments) as the officers of the requesting agency in addition to those the officer normally possesses.

5. While on duty with the requesting agency, an officer shall be subject to the lawful operational commands of the officer's superior officers in the requesting agency, but the officer shall for personnel and administrative purposes, remain under the control of the officer's own agency, including for purposes of pay. An officer shall furthermore be entitled to worker's compensation and the same benefits to the extent as though he were functioning within the normal scope of the officer's duties.
6. The Chief of Police is hereby authorized to enter into mutual assistance agreements with other law enforcement agencies in accordance with such reasonable arrangements, terms and conditions as may be agreed upon between the respective heads of the law enforcement agencies.

Commissioner Reece moved for the adoption of the foregoing resolution._

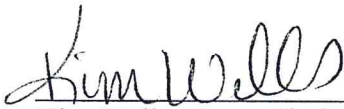
Comissioner Lasky second the motion and, upon vote, the same was adopted.

This the 7th day of August, 2018.

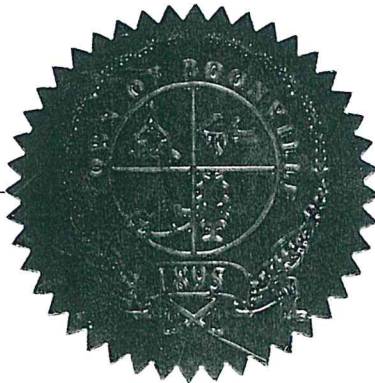


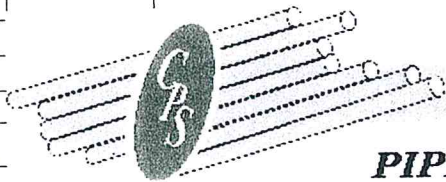
Russell (Rusty) Hunter, IV, Mayor

Attested by:



Kim Wells, Town Clerk





Consolidated

PIPE & SUPPLY COMPANY, INC.

2410 Binford St.
Greensboro, NC 27407
336 314-0349 Phone
205-578-4845 Fax

PO #

DATE:

JOB NAME
ATTENTION
LOCATION

BOONVILLE
JEFF

ITEM	QUANTITY	DESCRIPTION	UNIT PRICE	EXTENSION
1	12	3/4" REPAIR CLAMP F/ IPS 3"	\$41.00	\$ 492.00
2	12	3/4" REPAIR CLAMP F/ IPS 6"	\$54.00	\$ 648.00
3	12	2" DRESSER COUPLING F/ IPS	\$28.00	\$ 336.00
4	12	3/4" DRESSER COUPLING F/ IPS	\$20.00	\$ 240.00
5	10	3/4" MALE ADAPTER H-15428	\$15.75	\$ 157.50
6	10	3/4" FEM ADAPTER H-15451	\$17.00	\$ 170.00
7	12	3/4" QUARTER TURN BALL VALVE	\$7.50	\$ 90.00
8	6	6" X 3/4" CC SERVICE SADDLE	\$59.00	\$ 354.00
9	6	3/4" CORP B-25008	\$54.00	\$ 324.00
10	6	4" DWV COMBO WYE	\$13.75	\$ 82.50
11	100	4" SCH40 PVC PIPE	\$2.00	\$ 200.00
12	100	2" SDR21 CL200 PVC PIPE	\$0.55	\$ 55.00
13	6	3/4" X CL BRASS NIPPLE	\$1.75	\$ 10.50
14	6	3/4" X 3" BRASS NIPPLE	\$2.85	\$ 17.10
15	6	3/4" X 6" BRASS NIPPLE	\$5.50	\$ 33.00
16	1	2" GV FIPT X FIPT W/ 2" OP NUT	\$248.00	\$ 248.00
17	6	562S VALVE BOX	\$40.00	\$ 240.00
18	2	PVC CEMENT GLUE QT	\$9.50	\$ 19.00
19	2	PVC PRIMER QT	\$7.00	\$ 14.00
20	1	TEFLON TAPE	\$0.55	\$ 0.55
21	2	RECTORSEAL QT	\$15.00	\$ 30.00
22				\$ -
23				\$ -
24				\$ -
25				\$ -
26				\$ -
27				\$ -
			Pretax Total	\$ 3,761.15

Thank you,
Randall Greeson

rgreeson@consolidatedpipe.com

ALL QUANTITIES AND MATERIALS ARE OUR INTERPRETATION OF THE PLANS & SPECIFICATIONS
AND ARE NOT GUARANTEED. MATERIAL WARRANTIES ARE LIMITED TO THAT OF THE MANUFACTURERS ONLY.
SALE SUBJECT TO CREDIT APPROVAL 12870. PRICING GOOD FOR 30 DAYS. ALL RETURNS MUST BE
IN RESALEABLE CONDITION AND ARE SUBJECT TO A RESTOCK FEE.

5/2018



Sarah Harris <townadmin@boonvillenc.com>

Feasibility Study

1 message

Wed, Jul 18, 2018 at 8:43 AM

Lisa Hughes <lhughes@yadkincountync.gov>

To: East Bend Town Clerk <eastbend@yadtel.net>, Sarah Harris <townadmin@boonvillenc.com>, Town Manager <townmanager@jonesvillenc.gov>

CC: Perry Williams <pwilliams@yadkinville.org>

The State is offering grants to conduct feasibility studies on system consolidations. Perry and I have spoken in the past about establishing a Public Authority for water and sewer within Yadkin County and that each participating jurisdiction would have representation on the Board. We intent to apply for a grant to conduct the study...again this is only and study and doesn't mean it would be implemented. The County has no interest in owning or controlling this system, but rather to be a partner with the municipalities.

If you think your municipality would want to be included in the study, please let me know, as I am sure we would need to include that in the grant application.

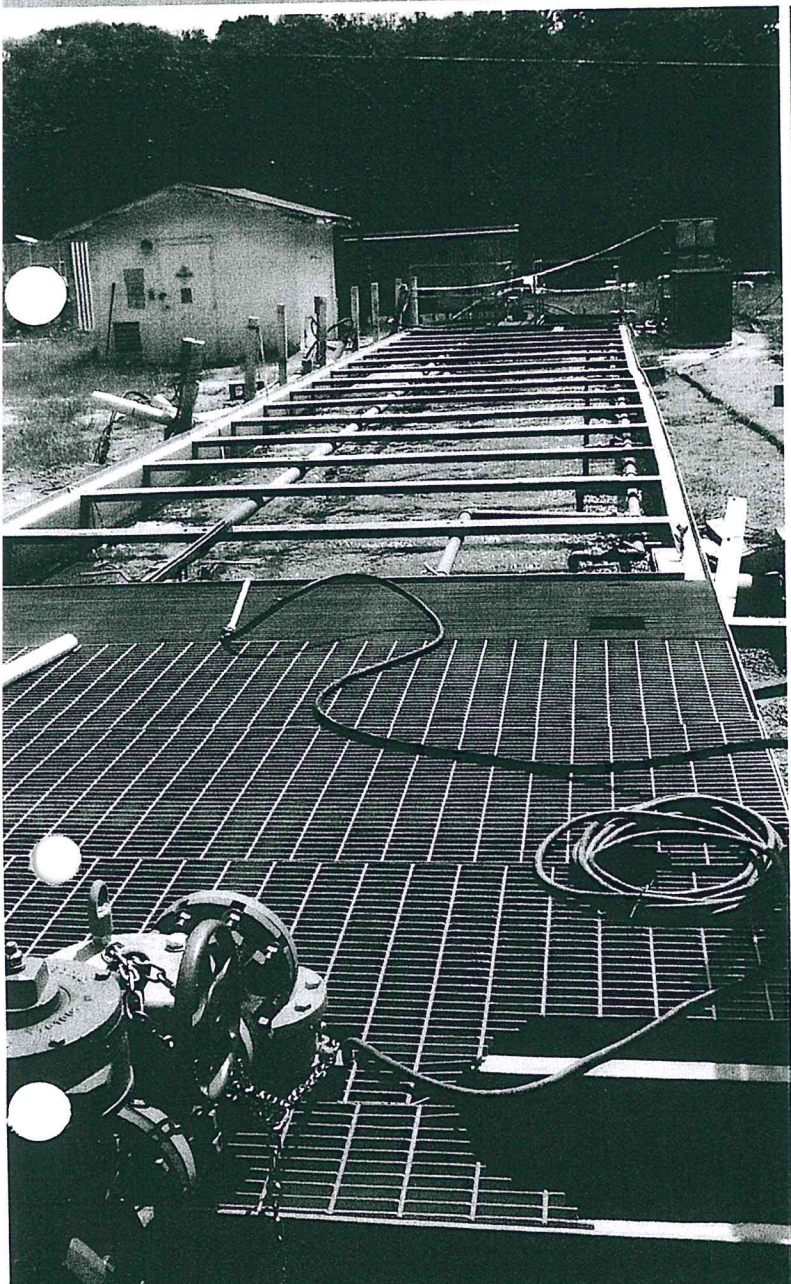
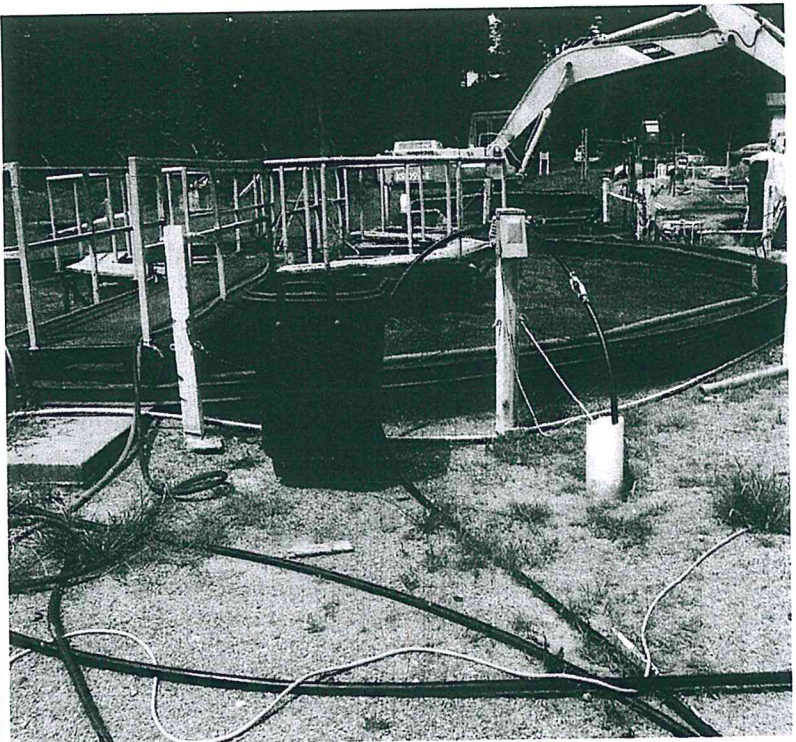
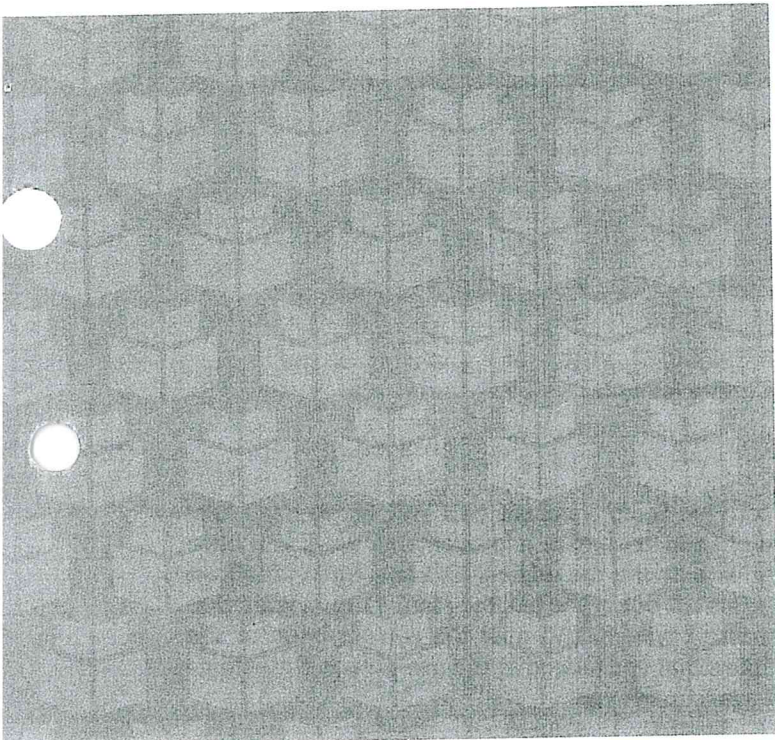
Lisa L. Hughes

County Manager

Yadkin County

(336) 849-7900 voice

(336) 849-7920 fax

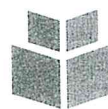


PROFESSIONAL ENGINEERING SERVICES

WASTE WATER TREATMENT PLANT IMPROVEMENTS (RFQ: 2018-001)

TOWN OF BOONVILLE

July 24, 2018



WithersRavenel
Our People. Your Success.

WITHERSRAVENEL

424 GALLIMORE DAIRY ROAD, SUITE C
GREENSBORO, NC 27409



July 24, 2018

Sarah Harris, Town Administrator
110 N. Carolina Ave.
Boonville, NC 27011

Subject: RFQ 2018-001: Waste Water Treatment Plant Improvements

Dear Ms. Harris:

As a frequent technical resource and "sounding board" for Fred Summers of the NCRWA, I have been fully aware of all of the issues associated with the wastewater treatment plant improvements work you have under construction. I know the project has been fraught with issues: the original bids coming in far above the funded amount, the need for a change order to add items left out of the bid, the Plant #1 tank floatation displacement, more costs to install the groundwater control system, and now the current issue of the floatation displacement of the Plant #2 tank. All of the items that you shared at the pre-proposal meeting I had previously talked over with Fred as he sought out ways to assist you.

WithersRavenel has experience on more than a dozen wastewater treatment plants (WWTPs) across North Carolina, but the projects that best demonstrate why the WithersRavenel team is the right team for this project are the ones that display our ability to be responsive, proactive, creative but practical, and tenacious. Achieving the outcome you most desire for this project—salvaging the Plant #2 tank and getting it back into operation at the lowest cost possible—will require those qualities from all parties involved.

I wish I could say there is a "silver bullet" that will eliminate all of the project's issues, but the nature of the project makes that impossible. However, as you review our project understanding discussion, please take special note of the thinking and planning that we have already started on identifying ways that have the goal of accomplishing your desired outcome.

We have partnered with subconsultants with whom we have established relationships on projects that include geotechnical and structural work.

We look forward to the opportunity to work with you to solve this most unusual challenge. If you have any questions or would like to discuss our enclosed qualifications in more detail, please do not hesitate to contact me at (919) 235-0361 or mkoser@withersravenel.com.

We acknowledge that we have received and read all of the addenda issued by the Town of Boonville.

Sincerely,
WithersRavenel

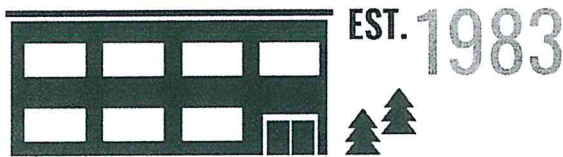
Michael R. Koser, PE
Senior Project Manager/Business Development

Corporate Background

WithersRavenel

Introduction

Founded in 1983 by Hamilton E. "Tony" Withers and Samuel F. Ravenel, WithersRavenel is an Employee Stock Ownership Plan (ESOP) company.



Legal Entity | WithersRavenel, Inc.
Former Name(s) | Withers & Ravenel, Inc.

Our 200+ employee-owners excel at providing the following services:



Geomatics



Environmental



Land Development & Planning

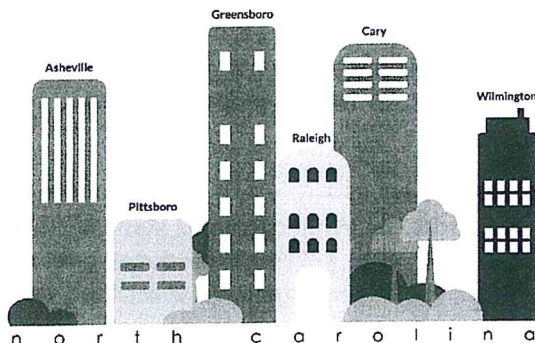


Stormwater



Utilities

Our headquarters is in Cary and we have branch offices in Asheville, Greensboro, Pittsboro, Raleigh, and Wilmington.



Wastewater Collection & Treatment

Our staff combines traditional field experience with state-of-the-art technology to provide needs analysis, master planning, computer modeling, water distribution and storage system design and specifications, and wastewater collection and treatment system design and specifications.

Our wastewater design experience encompasses gravity collection systems, sewer pump stations, force mains, low-pressure sewer systems, vacuum sewer systems, POTWs, land application, and on-site systems when needed. *Surveying, environmental assessments, planning, design, construction administration and observation, and grant administration are typically done with in-house personnel.*

GeoTechnologies

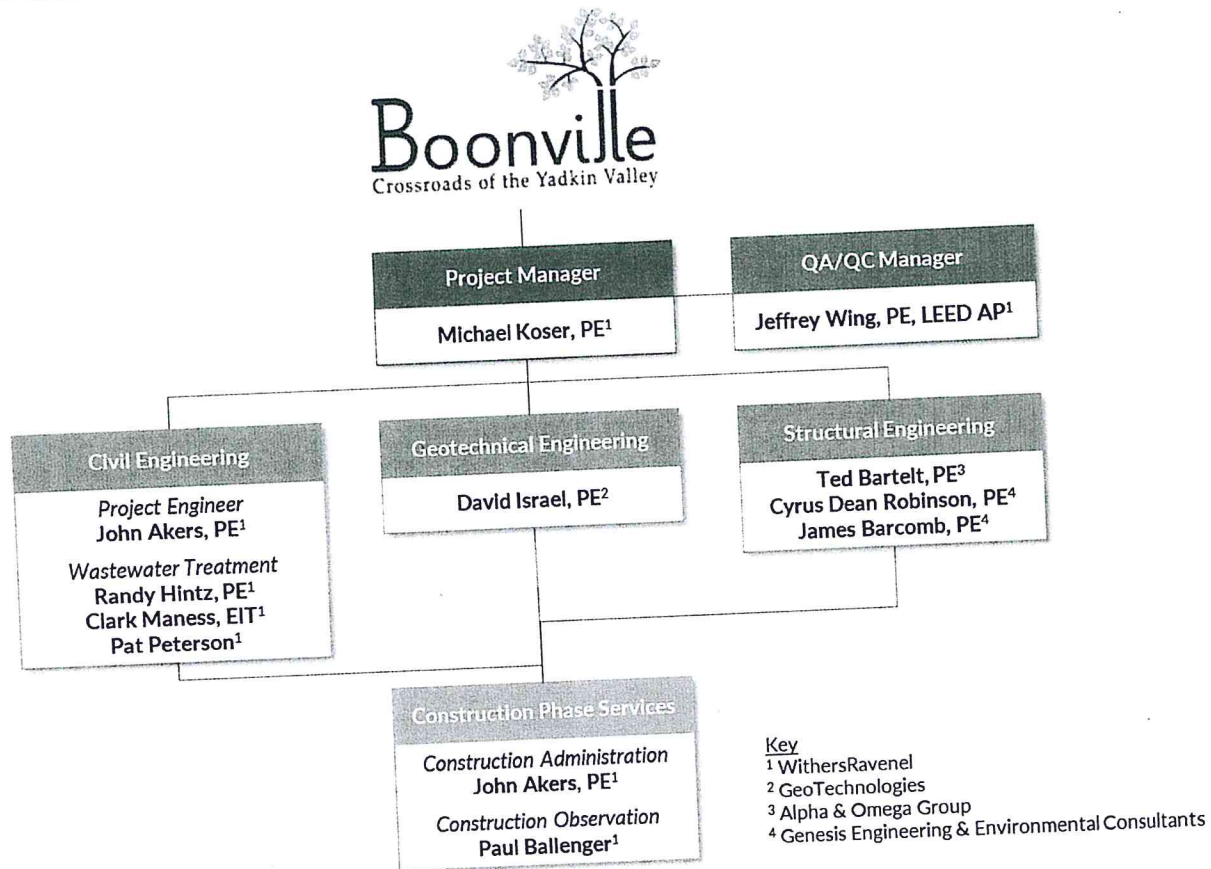
Established in 1992, GeoTechnologies is a full-service geotechnical engineering and materials testing firm that provides engineering services to the engineering and construction community. Located in Raleigh, GeoTechnologies has in-house capability to provide geotechnical engineering consulting services, laboratory testing services, field testing of soil during construction, and in-house drilling of test borings.

Alpha & Omega Group

Established in Raleigh, NC, by company president Ted Bartelt in 1998, Alpha & Omega Group (AOG) is a registered Small Professional Service Firm (SPSF) specializing in civil, structural, and water resources engineering. Combined with the services of Cyrus Dean Robinson (a former AOG employee), AOG brings a wide array of structural analysis and design experience, including buildings, bridges, tanks, and water and wastewater treatment basins.

Project Team

Organizational Chart



Hierarchy of Project Management

A typical project team includes one Project Manager, one Project Engineer, one or more Engineering Support Staff, and one or more CAD professionals:

- **Project Manager** – Overall project vision and development, personnel delegation and management, budget management, and subcontractor coordination
- **Project Engineer** – Oversees and executes design work
- **Engineering Support Staff** – Design support services to the Project Engineer
- **CAD Professional** – Construction document preparation and other CAD-related support services

Availability

WithersRavenel sees our team as an extension of your staff. Each of the WithersRavenel staff members proposed for this contract are available immediately and are committed to fulfilling their duties until the project is completed. Should you require additional personnel to complete emergency or specialized tasks not anticipated in the RFQ, we have ample staff to meet those needs, including resources in our other North Carolina offices that can be mobilized on short-notice.

Resumes

Resumes for key personnel are provided in subsequent pages; additional resumes for support staff are available upon request. For projects that appear in the **References** section, only the individual's role is provided. For projects that do not appear there, the individual's role and a brief description of the project are provided.

Michael Koser, PE
Project Manager | WithersRavenel



BS Civil Engineering, Pennsylvania State University, 1974



Professional Engineer: NC, #033427, 2007

Mr. Koser brings to this project wealth of technical and practical knowledge and experience gained and developed through over 44 years of engineering. His wide field of experience as a civil engineer involving structural design, problem soils, foundations and water intrusion make him perfectly suited to manage and lead this team. Below is a listing of wastewater type projects that display his abilities and prior experience in dealing with difficult, challenging projects that required unique solutions.

Wastewater Treatment Plant (WWTP) Review, Cleveland, NC. *Project Manager See page 13 for description of project work*

EQ Basin Emergency Repair, Troy, NC. *Project Manager See page 13 for description of project work*

Emergency Sewer Repair, Pilot Mountain, NC. *Project Manager See page 14 for description of project work*

Culvert Pipe Reuse, Cleveland, NC. *Project Manager See page 14 for description of project work*

Emergency Response to HDD Blowout under Haw River, Green Level, NC. *Project Manager See page 15 for description of project work*

Deep Jack & Bore for Lynwood Lakes, Greensboro, NC. *Project Manager See page 15 for description of project work*

Jeffrey Wing, PE, LEED AP
QA/QC Manager | WithersRavenel



MAS Environmental Policy and Management (Energy and Sustainability), University of Denver, 2011
BS Civil Engineering, University of Alaska at Anchorage, 1986



Professional Engineer: NC, #030056, 2004

LEED Accredited Professional

NASSCO Manhole, Pipeline, and Cured-In-Place Pipe Assessment and Certification Programs

Mr. Wing has 32 years of experience providing detailed design and coordinating approvals for gravity sewer mains, force mains, and pump stations for various municipal, residential, commercial, and industrial projects. He has reviewed sewer construction plans and coordinated with regulatory agencies regarding permitting and project documentation. In addition, he has worked as a construction observer and surveyor and has managed numerous projects from conceptual planning through design and construction. While with a previous firm, Mr. Wing designed dozens of small on-site wastewater systems.

Northeast Interceptor Improvements, Phase 1, Wilmington, NC. Assistant Project Manager who provided design, bid, and construction phase services for rehabilitation of 2,154 LF of deteriorated 20-inch and 24-inch ductile iron force main by installation of a 100-psi CIPP pressure liner; conversion and rehabilitation of 280 LF of 20-inch ductile iron gravity sewer to force main by installation of a 100-psi CIPP pressure liner; replacement of 210 LF of 20-inch gravity sewer with 24-inch gravity sewer. *Prior experience*

Northeast Interceptor Improvements, Phase 2, Wilmington, NC. Assistant Project Manager who provided design, bid, and construction phase services for relocation of 6,500 LF of the existing 24-inch force main paralleling Hewlett's Creek out of the creek to further improve the reliability of the system. This section of the force main had failed at two of the multiple locations where the force main was damaged and subsequently repaired during construction of an adjacent gravity sewer. The project was completed on an expedited schedule so that a state-imposed building moratorium could be lifted. *Prior experience*

Northeast Interceptor Improvements, Phase 3, Wilmington, NC. Assistant Project Manager who provided design, bid, and construction phase services for expansion of the system to provide capacity for build-out flow conditions, which included approximately 52,500 LF of 24-inch force main with multiple jack and bores and horizontal directional drills. *Prior experience*

Lee County Industrial Park Water & Gravity Sewer, Sanford, NC. Client Relations Manager for the preliminary engineering and routing of 8,000 LF of 16-inch water line and 12,000 LF of 8-inch sewer, which included three aerial pipeline crossings.

Cape Fear Public Utility Authority Quail Woods Pump Station Abandonment, Wilmington, NC. Client Manager for the elimination of Quail Woods Pump Station.

Cape Fear Public Utility Authority Aerial Pipeline Assessment, Wilmington, NC. QC/QA Manager for inspection of 8,000 LF of aerial gravity sewer.

Southern Oaks Sewer Interceptor, Fuquay-Varina, NC. Design, permitting, bidding, construction admin for 4,600 LF of 10-inch gravity sewer interceptor and elimination of Highway 42 pump station.

Water Treatment Plant Upgrade, Red Springs, NC. Preliminary design, USDA funding application, and possible state funding applications to upgrade the existing 1.5 MGD treatment plant.



Kurz Transfer Products Preliminary Engineering Evaluation, Lexington, NC. *Project Manager* who oversaw the evaluation of the current plant's operation, explored other sewer disposal alternatives, and made recommendations for Kurz to replace its existing sand filter system with newer technology. Kurz operates a 1,500 gallon per day recirculating sand filter system to treat domestic waste from its plant. Due to future growth, Kurz needed to evaluate its options for future sewer flows.

John Akers, PE

Project Engineer | WithersRavenel



MS Engineering Management, Air Force Institute of Technology, 1991
BS Civil Engineering, West Virginia University, Institute of Technology, 1983



Professional Engineer: NC, #024645, 1999

Mr. Akers has more than 30 years of experience in wastewater treatment, sewer collection, and grading and erosion control plans. He performs studies, prepares preliminary engineering reports, and conducts software modeling.

Kurz Transfer Products Preliminary Engineering Evaluation, Lexington, NC. *Project Manager* who oversaw the evaluation of the current plant's operation, explored other sewer disposal alternatives, and made recommendations for Kurz to replace its existing sand filter system with newer technology. Kurz operates a 1,500 gallon per day recirculating sand filter system to treat domestic waste from its plant. Due to future growth, Kurz needed to evaluate its options for future sewer flows.

Halifax County Service Authority Pump Station Replacement, Halifax County, VA. *Project Manager/Design Engineer* for the installation of a new suction lift pump station, eight-foot-diameter wet well, and a new six-inch force main. The Lasco Pump Station and four-inch force main was operating near capacity, running between 12 and 16 hours per day, and unable to handle the increased flows being generated in the Halifax County Industrial Park. The innovative design provided for reuse of the existing generator and a plan for change over to the new station, as the old station had to remain in operation throughout the construction period. The project included all survey services including a topographic and utility survey, preliminary analysis and design and final design and contracting package. Permitting included a certificate to construct from VA DEQ and erosion control and stormwater permitting. Additionally, coordination for all crossings under the existing roadways and a rail spur through VDOT and Norfolk Southern Railroad was required.

Sanitary Sewer Study, Walnut Cove, NC. *Project Engineer/Design Engineer* for the development of a Capital Improvements Plan (CIP) for the Town's wastewater collection system, update to the Town's collection system mapping, review and update of Town ordinances to comply with NCDEQ requirements, and development of a Preliminary Engineering Report for a future project based on the new CIP. To produce a comprehensive map of the town's sewer system, approximately 400 manholes were surveyed using GPS. All of this information was incorporated into a GIS data base and made available to the town via a GIS Web Site. The project also involved: 1) Completion of a field investigation of pump stations and the waste water treatment plant, 2) Gathering data, photographing and noting the interior and exterior condition of each manhole, 3) Review of all available data including: maintenance, operational, and inspection records, 4) Conducting interviews with key Town staff and other stakeholders to gain an insight into the Town's needs, concerns, and problems, with its treatment and collection systems, 5) Presenting the results to the Town's Board of Commissioners for approval.



WithersRavenel
Our People. Your Success.

David Israel, PE

Geotechnical Engineer | GeoTechnologies



MS Civil Engineering, University of Florida, 1983

BS Civil Engineering, University of Florida, 1982



Professional Engineer: NC, #14319, 1987

Mr. Israel brings expertise in geotechnical investigations, caisson and pile installation monitoring, construction materials testing and inspections, slope stability analysis, wall analysis/design, pavement design, and real estate transaction environmental evaluations.

Craven County Water Treatment Plant, Craven County, NC. *Geotechnical Engineer* who provided geotechnical engineering services and consulted on construction related issues for a new water treatment plant. The new plant has a projected construction cost of \$30 million and will have a capacity of 3,000,000 gallons per day. The project includes the main treatment plant site, well sites, distribution lines and a new diffuser in the Neuse River.

Havelock Water Treatment Plant Expansions, Havelock, NC. *Geotechnical Engineer* who provided geotechnical engineering services for expansions to their existing water treatment plant. The upgrades will include a new 60-foot diameter waste holding tank; a new pad mounted suction lift pump station, sludge drying beds and a precast effluent pump station. The project is currently under construction.

Johnston County Water Treatment Plant Expansions, Wilson Mills, NC. *Geotechnical Engineer* who provided geotechnical engineering services on a major expansion to the water treatment plant in 2000. The improvement included construction of two new clarifier cone structures, a concrete flocculation/flow splitter structure and a one-million-gallon pre-stressed concrete tank with a diameter of 105 feet.

Chatham Park Schedule 1 Water System, Pittsboro, NC. *Geotechnical Engineer* who provided geotechnical engineering services on a new water distribution system for the Chatham Park development. The system will provide potable water to a new 7,000-acre development that will include over 22 million square feet of office, research, retail, and community space. The initial phase of the system includes construction of a 1,000,000 gallon and a 300,000-gallon elevated storage tanks. Additionally, over one mile of new distribution line is being installed. The project is currently in the design phase.

Morrisville Police Station, Morrisville, NC. *Geotechnical Engineer* who conducted geotechnical investigation for new police station building.

Morrisville Fire Station, Morrisville, NC. *Geotechnical Engineer* who conducted geotechnical investigation for the new fire station building.

Hatcher Grove Baptist Church, Morrisville, NC. *Geotechnical Engineer* who conducted geotechnical investigation for building additions.

Ted Bartelt, PE
Structural Engineering | Alpha & Omega Group



BS Civil Engineering North Carolina State University, 1983



Professional Engineer: NC, #014455

Mr. Bartelt founded Alpha & Omega Group in 1998 and is the president and principal-in-charge of civil and structural engineering projects. His 34 years of experience include investigations of buildings, bridges, dams, and other types of structures as well as bridge design, building design, flood studies, storm water impoundment design, erosion control design, water and sanitary system design, retaining wall design, concrete repair, parking lot design, general site development, project specifications, cost estimates, and construction administration.

Camp Creek Sewer Pipe Foundation Repair, Cary, NC. *Project Manager* for emergency repair project for supports to a 48-inch aerial sewer line that serves as the main interceptor leading to the Town's water reclamation facility. Investigated the three foundation supports that were broken when a tree fell on them during Hurricane Matthew, checking for scour, cracks, and spalls. Documented all damage in a summary report and developed repair plans and an engineer's opinion of construction cost. During the construction, A&O conducted site visits and provided construction administration.

Polymer Group, Inc. Plant Expansion, Little Rock, AR. *Senior Structural Engineer* for a fast-track, design-build project requiring structural design to be performed on-site during construction of the project. An existing warehouse facility was gutted and two new process lines were installed. The work involved the removal of many existing columns, thus requiring the installation of temporary shoring. New columns were installed with more spacing to allow for the installation of new heavy foundations. Provided on-site design and construction observation.

Morton International, Wytheville Plant, Wytheville, VA. *Senior Structural Engineer* who provided design of several equipment mezzanines, support platforms, penthouse addition and service platforms for renovation and production improvements to existing manufacturing facility. The work involved structural steel framing utilizing both I-shapes and tube sections, matching existing equipment and coordination with existing framing and foundations under fast-track conditions while plant was in operation.

Rexam Beverage Can 24-Ounce Upfit, Winston Salem, NC. *Senior Structural Engineer* who provided structural analysis and design for improvements to this 390,000 square-foot aluminum can manufacturing plant. Modifications included foundations and pit for a new can washer and drying oven, a new concrete ramp at a railroad loading dock, and an extension of a metal building which houses vacuum pumps. Scope was later increased to include analysis of the existing roof framing and modifications to an existing mezzanine to accommodate revisions to material handling processes necessitated by the upfit. The project also required the repair of a concrete column that was damaged from improper construction loading.

Victoria Bridge Emergency Repairs, Biltmore Estates, NC. *Senior Structural Engineer* for the in-depth assessment and development of repair plans for the pre-1900 Victoria bridge. The work required non-destructive testing of the structural steel plate through-girders, load rating and analysis of the bridge for legal truck loadings, and the development of repairs to the structural plate girders. The discovery of severely corroded steel column components required the development of emergency repairs by the encapsulation of the steel columns with reinforced concrete.



Cyrus Dean Robinson, PE

Structural Engineering | Genesis Engineering & Environmental Consultants



BS Civil Engineering, Catholic University, 1962

AAS Civil Engineering, Brevard College, 1957



Professional Engineer: NC, #008547

Mr. Robinson has more than 50 years of experience as a structural engineer. He has been active in the design and construction of water and wastewater treatment facilities since 1971—first as an employee of a large consulting firm specializing in water and wastewater, and then in private consulting engineering practices starting in 1973. In addition, Mr. Robinson has participated in value engineering studies for projects. His knowledge is enhanced because he has participated in multiple education seminars on welding design, welding inspection, bridge inspection and design.

Cary Wastewater Treatment Plant, Cary, NC. *Senior Structural Engineer* for design of interior walls, baffles, and platforms for two existing 165' diameter clarifiers and one new 165' diameter clarifiers. These tanks were all prestressed concrete tanks and the interior walls could not be attached to the prestressed tank walls.

Granite Falls Water Treatment Plant, Granite Falls, NC. *Senior Structural Engineer* for design of the following structures related to the upgrading of an existing water treatment plant by adding a filtration system.

- Clearwell, Reinforced Concrete, 500,000-gallon capacity
- Raw Water Pumping Station - 10' x 22' x 40' deep.
- Plant Pumping Station - 10' 22' x 20' deep.
- Backwash Clarifier.

Spruce Pine Water Treatment Plant, Spruce Pine, NC. *Senior Structural Engineer* for design of the following structures related to the upgrading of an existing water treatment plant by adding a filtration system.

- Backwash Clarifier
- Clearwell, Reinforced Concrete, 200,000-gallon capacity.
- Pumping Station & Miscellaneous Plant Buildings.

Wastewater Treatment Neutralization System, NC. *Senior Structural Engineer* for design of three independent underground structures to provide chemical addition to neutralize a high pH waste stream. Work also included water and sewer lines, access roadways, utility bridge and miscellaneous structures.

Wastewater Treatment Complex, NC. *Senior Structural Engineer* for design of structures for treatment of waste from manufacturing operations. This work was designed and constructed in several phases using several construction contracts. Following is a listing of structures.

- Aeration Basins (2) 60' x 60' x 24' deep covered.
- Surge Basins (2) 30' x 30' x 24' deep covered.
- Pump Wet Well 12' x 60'
- Blower, Electrical and Service Building, approximately 3,000 SF
- Clarifiers (2) 40' diameter.
- Sludge Processing Building, approximately 3,200 SF
- Chemical Tanks and Containment.

- Digester 60' x 60' x 30' deep.
- Pipe and Utility Bridges
- Modifications to existing tanks, pump stations and structures

Lexington Wastewater Treatment Plant, Lexington, VA. *Senior Structural Engineer* for design of sludge storage tanks and miscellaneous structures.

Lorton Wastewater Treatment Plant, Lorton, VA. *Senior Structural Engineer* for design of structures for 1 MGD Treatment plant with the following structures: Aeration Basins 85' x 125'; (2) 55' Diameter Clarifiers; Pumping Station; Centrifuge Building 24' x 36' - two story; Digester Building Modifications; 24' x 24' Alum Building - one story; Conversion of existing pumping station to storage including internal buttresses to resist increase in lateral loads from increased fill height.

Veeco Worker Housing Project, Monterey, VA. *Senior Structural Engineer* for design of foundations for steel treatment tanks, foundations for water storage tank, pumping stations and miscellaneous treatment structures.



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James Barcomb, PE

Structural Engineering | Genesis Engineering & Environmental Consultants



BS Civil Engineering, North Carolina State University, 1988

MCE Civil Engineering, North Carolina State University, 1993



Professional Engineer: NC, #022997

Mr. Barcomb has more than 25 years of project experience in the design and construction of numerous structural industrial and highway projects throughout the State. His fields of expertise include management and design of multi-discipline projects, preparation of construction plans, specifications, estimating, and supervision and direction of personnel.

Tank Evaluation and Replacement, NZNA, Franklinton NC. *Principal Engineer* engaged in evaluation of existing concrete foundations of on-site storage tanks for adequacy of seismic and wind resistance of current code and use.

Tank Foundation Installation, NZNA, Franklinton, NC. *Principal Engineer* engaged in design of new concrete foundations with existing buildings for new process storage tanks. Evaluation of existing soil conditions and construction demands.

Filter Press Replacement, NZNA, Franklinton, NC. *Principal Engineer* responsible for evaluating existing structures for modification to facilitate removal of existing equipment, tanks and platforms for replacement and design of new foundations.

Concrete Silo Evaluation, Southeastern Grain, Wilson, NC. *Principal Engineer* responsible for evaluation of silos for adequate strength to remain in use and provide safe access for 120-foot tall concrete silos following combustion of sileage and subsequent flooding of structure with over 65-feet of water.

Oxidizer and Stack Foundations, PRTI, Youngsville, NC. *Principal Engineer* responsible for design of equipment foundations for new equipment to be placed above existing stormwater drainage pipe.

References

Wastewater Treatment Plant Improvements

MAGGIE VALLEY, NC

WithersRavenel is providing professional engineering services for the design and permitting of chemical feed improvements at the existing wastewater treatment plant. The scope of work includes preliminary and final design of chemical feed improvements, permitting assistance, and limited construction administration. WithersRavenel will review existing treatment plant operational data (from DMRs) and other data collected by staff related to pH of influent and effluent wastewater. We will also coordinate and consult with the process equipment manufacturer regarding the cause and potential solutions related to low pH at the existing wastewater treatment plant, and through testing help determine the appropriate chemical dosing level.

RELEVANCE
✓ WWTP Experience
CONTACT
Nathan Clark, Town Manager Town of Maggie Valley (828) 926-0866 nclark@townofmaggievalley.com

Water Treatment Plant Expansion

WEAVERVILLE, NC

WithersRavenel is preparing a Preliminary Engineering Report Amendment to support a funding application for expanding the Town of Weaverville's potable water system capacity. The document will allow the Town to evaluate practical alternatives for expanding its water supply. The report will include descriptions and maps of the project area and the existing water system. The PER will then outline the need for the project and include an analysis of alternatives, cost opinion, and conclusions and recommendations.

RELEVANCE
✓ Innovative Alternatives Analysis
CONTACT
Selena Coffey, MPA, ICMA-CM, Town Manager Town of Weaverville (828) 645-7116 scoffey@weavervillenc.org

Gallimore Road Pump Station Evaluation

BREVARD, NC

WithersRavenel provided wastewater pump station evaluation services and an engineering alternatives analysis to determine the current condition and operating parameters of an existing wastewater pump station. The result of this work included a detailed report of the current condition of the station's infrastructure, including structural, mechanical, and electrical/instrumentation components, and a detailed flow/pumping analysis.

Based on the results of the station evaluation, an engineering alternatives analysis was developed to achieve the owner's desire to cost effectively increase the capacity of this station. This analysis included the rehabilitation/upgrade of numerous existing system components and the complete replacement of the facility.

RELEVANCE
✓ Innovative Alternatives Analysis
CONTACT
David Lutz, Public Works Director City of Brevard (828) 884-2171 dlutz@citcom.net

Wastewater Treatment Plant (WWTP) Review

CLEVELAND, NC

WithersRavenel is preparing a conceptual expansion design for the Town's existing wastewater treatment plant (WWTP) from 0.27 million gallons per day (MGD) to either 0.40 or 0.50 MGD. WithersRavenel is evaluating four treatment alternatives for the proposed expansion project that will each include the installation of biological nutrient removal technology to meet more stringent nitrogen and phosphorus limits, the installation of sludge thickening processes to reduce sludge volume, and the installation of a new aeration basin and secondary clarifier. The

work has included a full sewer basin flow study to determine future WWTP capacity; preliminary hydraulic, biological treatment, and layout designs; and an opinions of probable construction cost for each alternative.

RELEVANCE
✓ WWTP Project
CONTACT
Cathy Payne, Town Clerk Town of Cleveland (704) 278-4777 704-278-4777

EQ Basin Emergency Repair

TROY, NC

The Town of Troy has a 26 MGD capacity lagoon that was converted to an EQ basin when the current treatment plant was constructed in 1982. On July 29, 2013, at 9:45 AM, Mike Koser in the WithersRavenel Greensboro office received a phone call from the Troy Town Manager, Greg Zephir, with the news that the EQ Basin had developed a major leak that was discharging directly into Densons Creek. The leak had just been discovered and appeared to be eroding the EQ basin embankment, prompting concern about full failure of the embankment.

WithersRavenel responded immediately to the site, contacted the NCDEQ Fayetteville Regional Office, and contacted GeoTechnologies, who mobilized to the site that same afternoon. With no reasonable way to implement a managed draining of the EQ basin and with extreme concern over the integrity of the embankment, NCDEQ recommended that the Town allow the EQ basin to drain down to a point where either the source of the leak could be safely closed or the leakage would stop.

Emergency measures were placed at the discharge point of the leak to prevent further erosion of the embankment and planning was initiated to develop a repair. GeoTechnologies developed a plan for the repair that could be accomplished by a local contractor. The repair involved segmental removal of an abandoned pipe that had been left in place in the embankment and backfilling of the void with competent, compacted, and tested soil.

The repair was accomplished without any further need to lower the level of the basin and without any further discharge to the creek. Because of the immediate response to the problem by the Town and WithersRavenel and the expedited repair, no penalties were assessed for the discharge of roughly 3 million gallons of untreated waste.

RELEVANCE
✓ Emergency Response ✓ Innovative Design ✓ Wastewater Project
CONTACT
Greg Zephir, Town Manager Town of Troy (910) 572-3661 manager@troy.nc.us

Emergency Sewer Repair

PILOT MOUNTAIN, NC

The Lola Lane area of Pilot Mountain is serviced by a PVC gravity line and a PVC force main that run parallel to and are located in the embankment of two farm ponds. After the upper pond experienced a catastrophic breach of the embankment, approximately 18 feet of both the gravity line and the force main were left exposed across the width of the breach.

A pipe replacement design was proposed by another consultant which resulted in a contractor's bid of over \$50,000, but prior to start of construction a second location of exposed sewer, caused by stream erosion, was discovered on the same line.

WithersRavenel was contracted to investigate the problem and develop an emergency fix. Using an ingenious approach involving adding steel casings to surround but not replace the exposed PVC pipes at the breach area and restoring cover and armoring the exposed pipe and relocating the stream at the stream erosion area, the repair at BOTH areas is being constructed for only \$47,470.

RELEVANCE
✓ Emergency Response ✓ Innovative Design ✓ Cost-Effective Solution ✓ Wastewater Project
CONTACT
Michael Boaz, Town Manager Town of Pilot Mountain (336) 444-3000 mboaz@pilotmountainnc.org

Culvert Pipe Reuse

CLEVELAND, NC

During the construction of the Amity Hill Pump Station, the force main from the pump station was routed under Highway 70 using a unique routing through an abandoned RCP culvert. While Highway 70 was being widened, the NCDOT discovered an abandoned 72-inch RCP pipe that was later discovered to have been a cattle crossing installed during the earlier construction of Highway 70. When we were made aware of the pipe, we immediately began working with NCDOT to preserve and extend the culvert to the limits of the road widening so that it would be available for use by the Town when the pump station was constructed. The Town paid \$600 to extend the culvert and saved the \$200,000 a bore under the road would have cost.

RELEVANCE
✓ Innovative Design ✓ Cost-Effective Solution ✓ Wastewater Project
CONTACT
Cathy Payne, Town Clerk Town of Cleveland (704) 278-4777 704-278-4777

Emergency Response to HDD Blowout under Haw River

GREEN LEVEL, NC

The design of the Town of Green Level Basil Holt to Burlington force main required crossing of the Haw River. To achieve this, WithersRavenel designed a 400-foot horizontal directional drill (HDD) crossing to run under the river.

During construction of the HDD pipe, a frack out occurred. Although the materials being released were non-hazardous, organic drilling mud, the release still qualified as a pollutant discharge. WithersRavenel responded by alerting the appropriate NCDEQ personal to conduct a site visit. Because there was no way to stop the release, NCDEQ agreed to allow the construction to continue with the assurance that all efforts would be made to maximize the capture and minimize the amount released.

To provided added protection against possible action by NCDEQ, WithersRavenel proactively initiated a detailed sampling and monitoring program. Upon completion of the construction, all date and findings were provided in a report to NCDEQ and the work was accepted without any penalties assessed on the Town.

RELEVANCE
✓ Emergency Response ✓ Wastewater Project
CONTACT
Rodney Gunn, Public Works Director Town of Green Level (336) 578-3443 town-email@greenlevelnc.com

Deep Jack & Bore for Lynwood Lakes

GREENSBORO, NC

The roughly 300 residences that make up the Lynwood Lakes subdivision had neither municipal water nor municipal sewer service. Most of the wells did not meet minimum construction standards, and many of the septic systems were nearly 40 years old with a history of malfunctions; combined, these conditions increased the risk of contamination to the water supply and local groundwater and posed a serious risk to human health.

WithersRavenel was hired by the City of Greensboro to provide a complete suite of engineering services to design the approximately five miles of 8-inch water mains and approximately six miles of 8-inch sanitary sewer mains to service the neighborhood. Work included preliminary engineering, surveying, environmental area delineation, design, plans and specifications, permitting, easement acquisition documents, construction administration and inspection, and contractor prequalification assistance.

The most difficult design requirement imposed by the City was "no pump stations." To achieve this, WithersRavenel developed a very aggressive alignment that hugged the shoreline of the two Lynwood lakes. To assuage citizen concerns for the lake and to preserve 100+ year old trees, over 1,000 feet of jack and bore was used to construct the sewer with over 800 feet of that being up over 25 feet deep.

RELEVANCE
✓ Innovative Design ✓ Wastewater Project
CONTACT
Melinda King, Manager, Construction Division City of Greensboro (336) 373-2372 melinda.king@greensboro-nc.gov

Project Understanding & Approach

Project Understanding

Although the scope of work includes only a few items, the main issue—the salvage/replacement of Treatment Plant #2—is a significant one because it is not a simple or straightforward issue. Our understanding of the scope of work defined by the Town is as follows:

1. Design a salvage plan or replacement plan for Treatment Plant #2.
2. Design a modification to the influent splitter box to work with the three plants at completion of construction.
3. Oversee and administer the construction of items 1 and 2, and completion of original contract.

From superficial, external-only examination of the Plant #2 tank, it is our belief that the tank can be salvaged, and our project approach is based on that notion. We also are confident that the most cost effective and fastest method to salvage of the tank will be as a single unit without dismantling it.

We have a number of concepts that we will explore once we have acquired the additional needed information, but at present we can offer the following general concepts:

- *Concept #1: Restraining the tank in place or raising it to allow removal of the soil and debris that has accumulated under the tank.* Removal of the material under the tank can be a combination hand labor/small equipment effort coupled with or followed by flushing with water. Once the foundation slab is cleaned, the tank can be lowered back into place.
 - **Variation #1:** Support the tank with exterior end-bearing or friction piles or soil anchors with the length of the piles determined by the geotechnical investigation. The worst case would be extending the piles to competent rock to make them end-bearing piles.
 - **Variation #2:** Install supports through the bottom of the tank to bear on the concrete foundation slab.
- *Concept #2: Temporarily sealing off the area around the tank so that it can be filled with water to refloat the tank.* Once the tank is floated, external agitation combined with directional injection and removal of the water can be used to liquify the deposition and remove the mud and debris until the deposition is completely removed. The water would then be gradually drained out to lower the tank back into place.

Whatever the means that is used to salvage the Plant #2, it will be our strong recommendation to incorporate another item into the scope of work and into the corrective action for the plant: installing a subdrain for the plant. Since the cause of the floatation of both Plant #1 and Plant #2 was water getting in below the tanks, we strongly recommend that a subdrain be installed that will protect this from happening again. Our concept is to create an infiltration drain (French drain or perforated pipe) that will prevent water from accumulating around and getting under the tanks. The drain would only have to function when the tanks are dewatered using temporary mud pumps to discharge the collected water, but it may be possible to use the abandoned lagoon outfall piping to allow this to be a full-time gravity discharge system.

Work Plan

Task 1 – Kickoff Meeting

We will request a meeting of our team with the Town at the site to collect and discuss the background and receive answers to pertinent questions that will help us focus our site investigation. At the meeting we will offer for discussion all of our preliminary ideas on how to salvage the Plant #2 tank for reuse. The purpose of the discussion will be to eliminate any that are mutually concluded are not feasible or undesirable by the Town so that the next step—data gathering—can be focused to address only the viable options. With the

anticipation that the construction will be undertaken as a change order to the Turner Murphy contract, it is suggested that a representative of Turner Murphy should also be present to offer input into the alternatives screening discussion.

A detailed inspection of the Plant #2 tank will be requested so that we can inspect for any damage that may limit the viability to the tank salvage or restrict the salvage methods that can be implemented for the tank.

Task 2 – Data Gathering

Construction plan information and drawings will be reviewed to determine the necessary field measurements that are needed for developing the salvage alternatives for evaluation. At a minimum, field measurement/survey of legacy components of the plant site will likely be required for such features as the abandoned lagoon area, the lagoon overflow structure, the piping, any underground utilities, etc. Subsurface soils and depth of rock will need to be investigated in discrete areas. Use of a drill rig versus hand auguring for subsurface exploration cannot be determined at this time.

Task 3 – Select Salvage Alternative

Using the results of Task 1 and 2, alternatives for salvaging the Plant #2 tank and reestablishing it sitting on the foundation slab will be fleshed out sufficiently to determine the feasibility, pros and cons, potential for success, and approximated cost to implement. The alternatives will not be designed in detail but merely developed conceptually to a level of completion required to perform the needed evaluation. Following a meeting with the Town to review and discuss the alternatives and the evaluation factors, an alternative will be selected for design.

Task 4 – Design/Prepare Construction Documents

With the anticipation that the construction will be undertaken as a change order to the Turner Murphy contract, WithersRavenel will meet with the contractor to discuss the selected alternative and to ascertain what plans, specifications, and construction documents are needed to secure a quote and perform the construction. It is not anticipated that any additional permits will be needed to implement the salvage or complete the construction. Once the construction documents are finalized, WithersRavenel will prepare a detailed Opinion of Probable Construction Cost prior to issuing the documents to the contractor for preparation of the change order proposal.

Task 5 – Change Order Review/Negotiation/Award

When the change order proposal is submitted, the proposed costs will be validated and any that are determined excessive will be discussed and negotiated. Once the total change order cost is finalized, the change order will be processed and awarded.

Task 6 – Construction Contract Completion

Once the change order has been finalized, and construction is underway, our construction administration and construction quality control personnel will be mobilized. A damage review/testing/inspection checklist will be developed and provided to the contractor for finishing the construction. This checklist will include the Plant #2 tank salvage, any components for Plant #2 or any parts of the total wastewater treatment that may have been affected by the Plant #2 displacement and completion of the remaining construction. We will use both ground photos and UAS (drone) photography to document and monitor the work.

Task 7 – Close-Out

Upon satisfactory completion of the construction salvage of Plant #2 and completion of the remaining construction, the necessary close out documents and record drawings will be prepared and certifications provided to satisfy the Town, the funding agency and any outstanding construction permits.

Proposed Meetings

The following is listing of the proposed meetings and attendees anticipated for the salvage of Plant #2 and the completion of the construction:

	Town	WithersRavenel	Contractor	Funding Agency
Kick-Off Meeting	✓	✓	✓	
Salvage Alternative Selection Meeting	✓	✓	✓	✓
Contractor Change Order Review Meeting	✓	✓		
Preconstruction Meeting	✓	✓		✓
Construction Coordination Meeting	✓	✓		

Construction Quality Control

Construction quality will be assured by the WithersRavenel team by assigning a seasoned, senior person to provide full-time monitoring during critical stages of the construction. This person will have the necessary experience to resolve many construction problems independently and, when needed, will be capable of relaying the problem specifics so that a resolution can be determined by someone not on site. Defects and deficiencies will be identified through scrupulous observation and by diligently enforcing the requirement that the contractor allow and arrange for inspection of all work. Daily reports, augmented with photos will be provided to document the progress. As an added measure of protection, the contractor will have to show proof that any of the components or equipment that was affected by the issue with Plant #2 were not damaged and have retained their value to the Town. As a way of further protecting the Town, extended warranties may be requested on any items that are questionable.

Construction Phase Administration

Our standard construction phase administration services typically include reviewing submittals, responding to RFIs, providing clarifying drawings/sketches when needed, reviewing contractor change order requests, processing owner change order requests, reviewing contractor progress payment requests, substantial completion and final completion inspections, reviewing contractor project closeout documents, and preparing record drawings.

Requests for Information (RFI)

Our first point of contact for all construction questions is the on-site representative. All issues and questions that are resolved at that level are communicated to the design team and are documented in the daily report. For issues requiring design team input, the contractor will be instructed to submit an RFI which will then be reviewed by the design team and a written response provided with any necessary supporting drawings, sketches or information included.

Submittals Processing

Submittals are reviewed by the design team and a written response provided for each submittal item noting the submittal as either "No Exceptions Noted", "Correct as Noted/Resubmittal Not Required" or "Revise and Resubmit". For other than the "No Exceptions Noted" determination, a markup up or clarifying information as to the deficiencies in the submittal are provided to the contractor.

Contract Changes

Owner initiated changes are prepared and submitted to the contractor as a Work Change Directive using EJDCD form C-940 when the need is immediate or as a Field Order using EJDCD form C-942 when no change in contract time or cost is anticipated. A request for proposal is used for Owner-initiated changes that are not urgent, and where a change in contract time and/or cost is anticipated. Once the proposal is

provided by the contractor, the costs and time extension requested is evaluated and verified through independent confirmation. Once agreement is reached on the cost and time extensions, the change is incorporated into the contract using EJCDC form C-941.

Project Close-Out

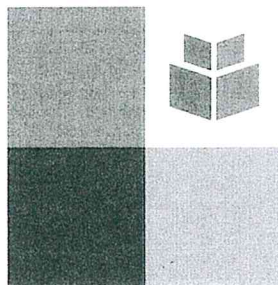
When the contractor feels the work is substantially complete, he will be instructed to submit that as a request whereupon an inspection will be performed on the work. Using EJCDC form C-625, Certificate of Substantial Completion will be prepared and submitted to the Town for approval. The Certificate of Substantial Completion will include a listing of items requiring completion or correction prior to final inspection. When the contractor declares that the work is complete, a final inspection will be performed. Any remaining deficiencies or defects will be provided to the contractor in a written document to include expected times for correction. Prior to processing the final payment, the contractor will be required to submit for review all documents required by the construction contract including but not limited to consent of surety to release final payment, release of liens documentation from all suppliers and subcontractors, and a declaration of any outstanding claims against the owner. Once all of the items have been determined satisfactory or resolved, final payment will be recommended. Record drawings will be prepared as needed to document the final construction and provided to the Town and any permitting agencies involved.

Budget/Cost Control Scope and Approach

The scope for this effort will include the evaluation of the initial change order cost proposed by the contractor followed by a detailed scrutiny of any contractor recommended or claimed change that will increase the project cost. When the change order cost proposal is presented by Turner Murphy for salvage of Plant #2 and completion of the construction, WithersRavenel will compare the proposed costs to those developed in Task 4. Any of the costs that are determined to be excessive will be investigated by checking with other contractors and then negotiated with Turner Murphy. Once a fair price has been agreed for the change order and the work is underway, the onsite construction representative will make the necessary measurements of materials incorporated into the work to prevent any overcharging by the contractor. When any construction issues arise that could increase the cost, the onsite construction representative will engage the WithersRavenel team as needed to recommend alternatives that will prevent the additional cost. If any additional costs become needed, the WithersRavenel team will investigate cost saving measures to implement to recover the overage on other parts of the construction and hold the line on the overall project cost.

Schedule

Task	Duration	Start	Finish	2018				2019		
				SEP	OCT	NOV	DEC	JAN	FEB	MAR
Project Kick-Off Meeting	1 Day	Tues 9/4/18	Tues 9/4/18							
Data Gathering	14 Days	Wed 9/5/18	Mon 9/24/18							
Select Salvage Alternative	14 Days	Tues 9/25/18	Fri 10/12/18							
Alternatives Review Meeting	1 Day	Tues 10/9/18	Tue 10/9/18							
Design/Prepare Construction Documents	14 Days	Mon 10/15/18	Thu 11/1/18							
Change Order Review/Negotiation/Award	5 Days	Fri 11/2/18	Thu 11/8/18							
Construction Contract Completion	60 Days	Fri 11/9/18	Thur 1/31/19							
Close Out	21 Days	Fri 2/1/19	Fri 3/1/19							



WITHERSRAVENEL
424 GALLIMORE DAIRY ROAD, SUITE C
GREENSBORO, NC 27409

RFQ for Engineering Services Waste Water Treatment Plant

	Proposal Requirements:	Davis Martin Powell	WithersRavenel	WkDickson
1	Corporate background, experience and statement of qualifications	1	1	1
2	Project staffing and organization including key principal and associate staff; identification of any associate firms and their key principal and associate staff and their responsibilities	1	1	1
3	Identification of Team Project Manager	1	1	1
4	Project Team organizational chart	1	1	1
5	Detailed resumes of the project team members and relevant project experience	1	0.5	0.5
6	Minimum five (5) client references from similar projects within the last 5-6 years including telephone number and email contact information	1	1	1
7	Evidence of understanding the Scope of Work	1	1	1
8	Describe the anticipated project approach including work plan, proposed meetings, schedule, scope of work and approach to project budget control including if a third-party cost control consultant will be utilized	1	1	1
9	Describe in detail steps that will be taken by your team to guard the Owner against defects and deficiencies in the work of the contractors during the construction phase	1	1	1
10	Explain how your team manages the process of reviewing subcontractor submittals, clarification requests, and issuance of bulletin drawings, reviews of contractors' cost proposals, review and justification of change orders, payment requests, final inspections and assembly of the project close-out documents.	1	1	1
	Total Met	10	9.5	9.5
	Selection Criteria:			
1	Specialized, appropriate expertise for the type of project	0.5	1	1
2	Organizational chart and project team expertise	0.5	1	1
3	Proposed design approach and innovative design solutions for projects of these types	0.5	1	1
4	Project quality control plan including recent experience with cost control, change orders, and maintaining design and construction schedules	0.5	1	0.5
5	Current workload of the firm's personnel	0.5	1	0
6	Record of successfully completed projects without major legal or technical problems.	0	0	0
	Total Met	2.5	5	3.5
	GRAND TOTAL	12.5	14.5	13



**RESOLUTION DECLARING CERTAIN PROPERTY TO BE SURPLUS AND
AUTHORIZING THE DISPOSITION OF SAID PROPERTY BY INTERNET
AUCTION OR PRIVATE SALE**

WHEREAS, G.S. 160a-267 & 270(c), allow the Town to sell personal property by private negotiation and at electronic auction upon adoption of a resolution or order authorizing the appropriate official to dispose of the property; and

WHEREAS, the Town Board of the Town of Boonville, North Carolina, has determined that the Town owns certain personal property that is no longer needed or usable by the Town; and

WHEREAS, the property is described below:

Brush Bandit 12" four cylinder John Deere
WattSaver Electric motor 5 Horse Power
Marathon Electric Motor 20 Horse Power
Waukesha Enginator model 2000 serial number RU17080 - 5000 reserve

NOW, THEREFORE, BE IT RESOLVED by the Boonville Town Board that the Finance Officer/Town Clerk is authorized to sell by private negotiation or at electronic auction @ www.GovDeals.com at the earliest convenience the surplus property described above as per the terms and conditions as specified in the GovDeals Service contract approved by this Council and in accordance with G.S. 160A-267 or 270(c). The terms of the sale shall be net cash.

Adopted on this the 7th day of August, 2018.

Russell (Rusty) Hunter, IV, Mayor

Attested to:

Kim Wells, Town Clerk