City of Port St. Lucie
Procurement Management Division
Nathaniel Rubel, Assistant Director
121 SW Port St. Lucie Blvd,, Port St. Lucie, FL 34984

[FLORIDA DESIGN DRILLING LLC] RESPONSE DOCUMENT REPORT

GEN No. 20240141

Design-Build Services for Eight (8) Wells and the Raw Water Main on Discovery Way

RESPONSE DEADLINE: January 21, 2025 at 3:00 pm

Report Generated: Friday, January 24, 2025

Florida Design Drilling LLC Response

CONTACT INFORMATION

Company:
Florida Design Drilling LLC

Email:
mike@fldrilling.com

Contact:
Mike Black

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West Palm Beach, FL 33411

Phone:
(561) 371-9241

Website:
N/A

Submission Date:
Jan 21, 2025 1:49 PM (Eastern Time)

ADDENDA CONFIRMATION

Addendum #1
Confirmed Jan 20, 2025 2:59 PM by Mike Black

Addendum #2
Confirmed Jan 20, 2025 2:59 PM by Mike Black

QUESTIONNAIRE

1. Respondent Submittals*

Please Upload your COMPLETE response, including any and all required forms listed in the solicitation and the corresponding attachments.

FINAL_FDD_Submittal_City_of_PSL_8_Floridan_Wells.pdf

2. I certify that I have read, understood and agree to the terms in this solicitation, and that I am authorized to submit this response on behalf of my company.*

Confirmed

DESIGN-BUILD SERVICES FOR EIGHT (8) WELLS AND THE RAW WATER MAIN ON DISCOVERY WAY ERFP#20240141 - January 21, 2025

Florida Design Drilling, LLC
7733 Hooper Road
West Palm Beach, FL 33411
(561) 844-2966

Table of Contents *Page*

Florida Design Drilling is pleased to submit our team's qualifications to provide design-build services for the City of Port St. Lucie. As you review our response document, you will note that the Florida Design Drilling team exactly matches your needs.

TAB 1: DESIGN TEAM QUALIFICATIONS AND PERSONNEL EXPERIENCE

HOLTZ CONSULTING ENGINEERS, INC.

HCE's central headquarters in Jupiter and branch office in Stuart allows us to provide responsive and efficient engineering service to all of our clients such as the City of Port St. Lucie

Florida Design Drilling (FDD) has chosen to team with Holtz Consulting Engineers, Inc. (HCE) to be their lead design firm. HCE was founded in March 2006 in Jupiter, Florida to assist utilities, cities, counties, and special districts such as the City of Port St. Lucie with high-quality, responsive, and efficient engineering services on facility and utility improvement projects. HCE has demonstrated our commitment to providing excellence and value on numerous successful projects over the past eighteen years. We are currently successfully providing engineering services to several other local entities and have the expertise, experience, and staffing necessary to accomplish all required tasks under this project.

We specialize in providing responsive and efficient utility engineering services to Clients located primarily in St. Lucie, Martin, and Palm Beach Counties. Our engineering and management expertise include the following areas:

- Water treatment, storage, and distribution.
- Water supply wells and raw water pumping and conveyance.
- Water resource management and alternative water supply.
- Civil, stormwater, and site improvements.
- Permitting of infrastructure improvements.
- Hydraulic modeling of stormwater management, water distribution, raw water conveyance, wastewater collection, and reclaimed water distribution systems.
- Construction management services including inspection and start-up services.
- Grant writing and administration.

HCE staff has extensive experience providing general engineering consulting services to similar government entities in South Florida. We currently serve as a general engineering consultant to the City of Port St. Lucie as well as for several municipal and county utilities and authorities and our staff has provided dedicated service to these clients for many years.

HCE and our design team members provide significant experience and capabilities in all phases of project implementation, including planning, hydraulic modeling, condition assessments, rehabilitation, preliminary engineering and final design, public relations and communication, alternative funding analysis including grant writing and administration, permitting, bidding/procurement, construction services, and project start-up and close-out. Our firm prides itself on providing timely and cost-effective engineering

and management service to local clients, with an emphasis on listening and understanding the needs of our clients on each assignment. As long-time residents of the area and members of the community, we are committed to the success of all of our projects and the Clients that we serve. We are eager to have the opportunity to provide the City of Port St. Lucie with quality engineering services for this contract.

HCE is a privately owned Florida based engineering firm and our current gross annual volume of work is approximately $9 million dollars per year. The officers of the company are as follows: Andrea Holtz (President), David Holtz (Senior Vice President), Steven Fowler (Vice President), Curtis Robinson (Vice President), Christine Miranda (Vice President), Andrea Holtz (Secretary), and David Holtz (Treasurer).

WELL, PIPELINE, AND DESIGN-BUILD EXPERIENCE

HCE has extensive successful experience with general engineering consulting, evaluation, and implementation of over forty Surficial and Floridan well improvement projects for local utilities including the City of Port St. Lucie, Seacoast Utility Authority, and the Village of Palm Springs. We are currently assisting the City of Port St. Lucie with the design and construction of a new 1,350-foot deep Upper Floridan Aquifer Supply well for the City's James E. Anderson (JEA) Water Treatment Plant, Well F-19. Through our experience with City Floridan well projects we have an in-depth understanding of City standards as well as preferences for building design and architecture and site improvements.

HCE has also designed and constructed over a hundred miles of water distribution and wastewater collection, pumping, and transmission projects. These projects included large and small diameter pipelines that have been installed via traditional open-cut methods and by trenchless technologies such as horizontal directional drilling and jack-and-bore methods. We have implemented major new pipelines for the City of Port St. Lucie including a 12,250 linear foot 24-inch reclaimed water main extension.

HCE is also a fully integrated design-build firm, having completed over 45 design-build projects to date, and able to provide turnkey solutions to infrastructure challenges. We are both licensed engineers and contractors experienced in traditional fixed price design -build as well as progressive design-build. Our understanding of construction methods, permitting, scheduling, and budgeting allows us to design projects, while reducing cost and schedules.

GRANTS AND FUNDING EXPERIENCE

HCE has an internal grants team that has provided grant consulting services on over 150 individual grants totaling hundreds of millions in grant funding for local cities and municipalities, including the City of Port St. Lucie, the City of Riviera Beach, the City of Lake Worth Beach, the Village of Golf, the City of Stuart, the City of West Palm Beach, the Village of Wellington, the Village of Tequesta, Okeechobee Utility Authority, and the Town of Manalapan. Our extensive understanding of the technical issues, environmental permitting, and construction activities associated with project implementation is invaluable when developing grant applications for capital improvement projects. We are able to assist with cost estimating and project management as well as procurement and grant compliance activities, including Davis-Bacon compliance and Buy America provisions. Our grant staff has a comprehensive understanding of the grants available and the technical expertise necessary to develop compelling and successful grant applications for the City of Port St. Lucie.

RESUMES

Resumes for the proposed design team for this project are provided at the end of this section.

LICENSES AND CERTIFICATIONS

State of Florida
Department of State

I certify from the records of this office that HOLTZ CONSULTING ENGINEERS, INC. is a corporation organized under the laws of the State of Florida, filed on March 24, 2006, effective March 24, 2006.

The document number of this corporation is P06000043115.

I further certify that said corporation has paid all fees due this office through December 31, 2025, that its most recent annual report/uniform business report was filed on January 6, 2025, and that its status is active.

I further certify that said corporation has not filed Articles of Dissolution.

Given under my hand and the Great Seal of the State of Florida at Tallahassee, the Capital, this the Sixth day of January, 2025

Secretary of State

Tracking Number: 3722635486CC

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Florida dbpr Department of Business & Professional Regulation

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LICENSEE DETAILS

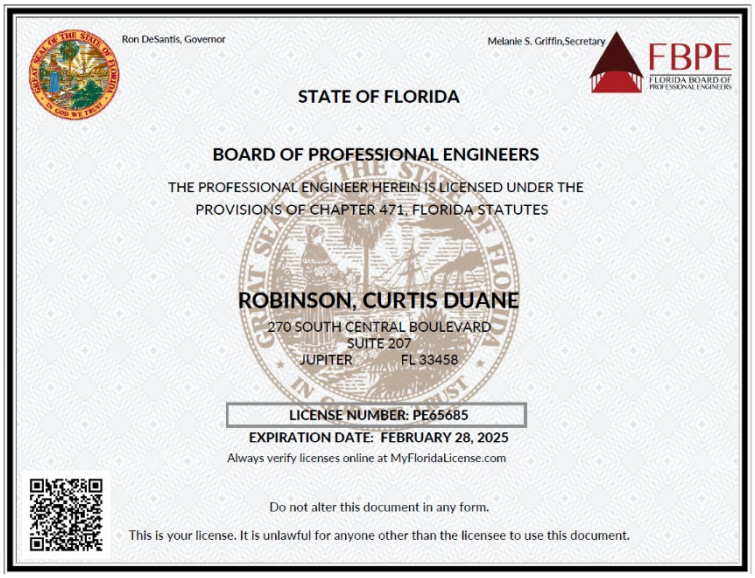
3:14:28 PM 1/15/2025

Licensee Information

Name:	HOLTZ CONSULTING ENGINEERS, INC. (Primary Name)
Main Address:	270 SOUTH CENTRAL BOULEVARD SUITE 207 JUPITER Florida 33458
County:	PALM BEACH

License Information

License Type:	Engineering Business Registry
Rank:	Registry
License Number:	26960
Status:	Current
Licensure Date:	05/05/2006
Expires:	



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ROBINSON, CURTIS DUANE

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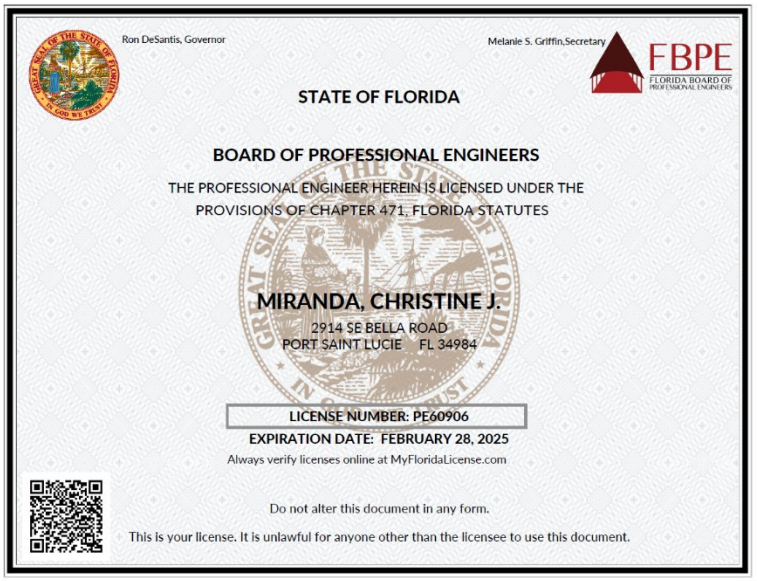

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MIRANDA, CHRISTINE J.

2914 SE BELLA ROAD
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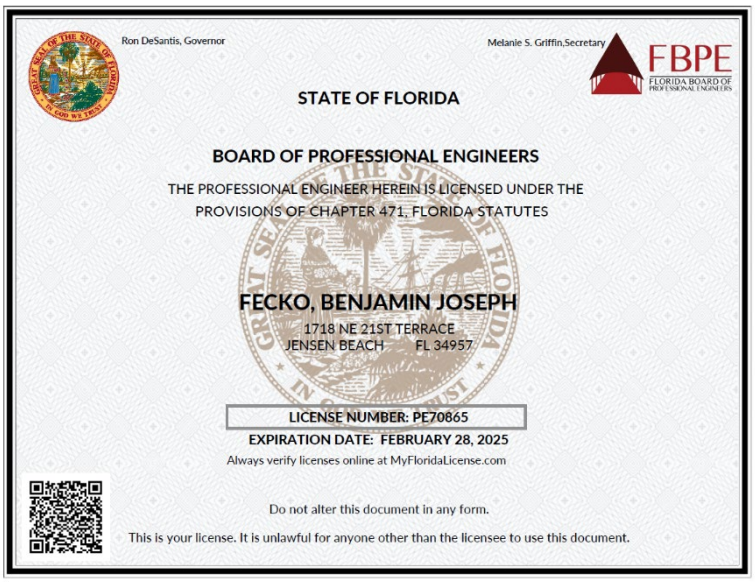

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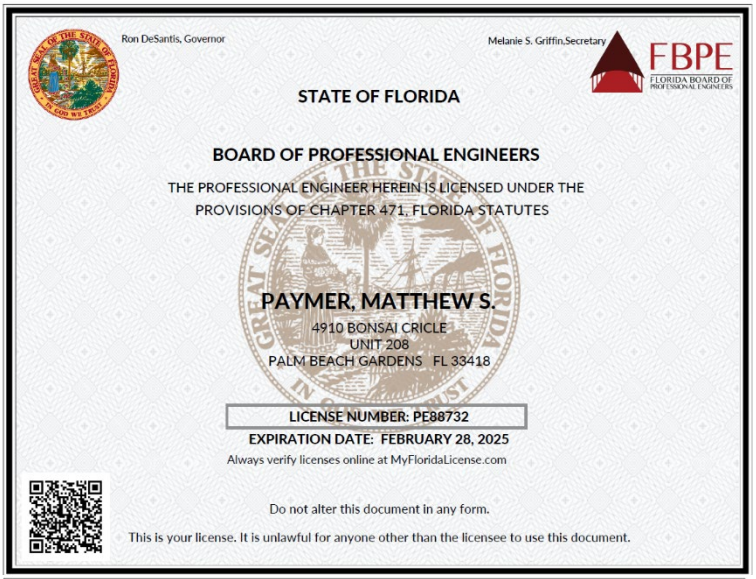

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4910 BONSAI CRICLE
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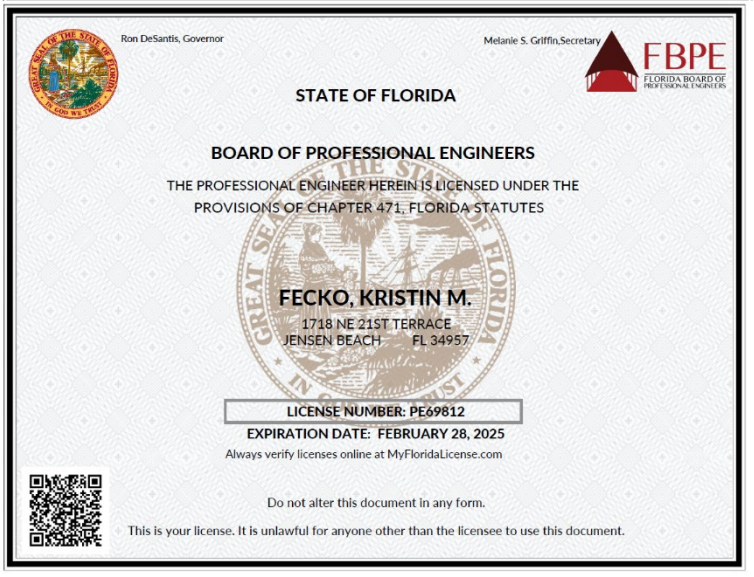

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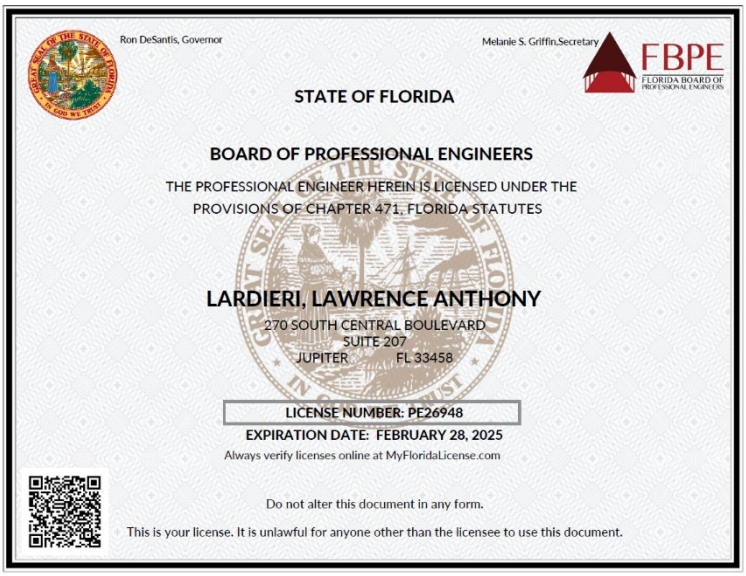

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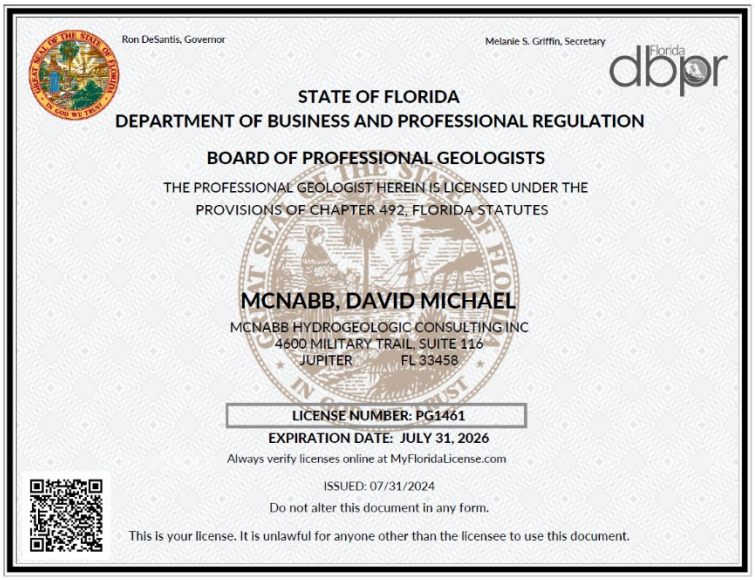

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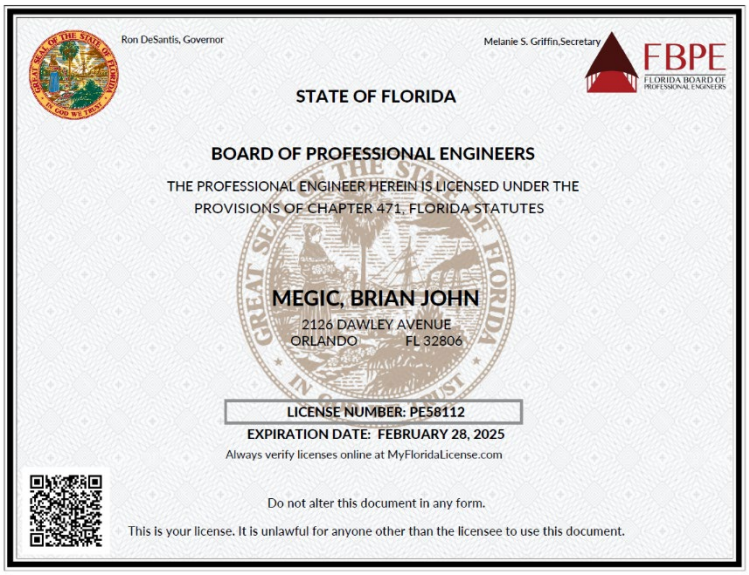

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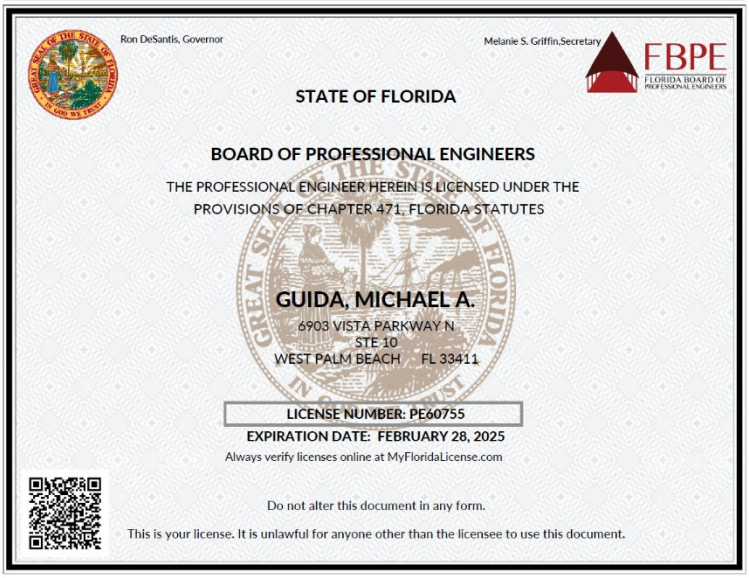

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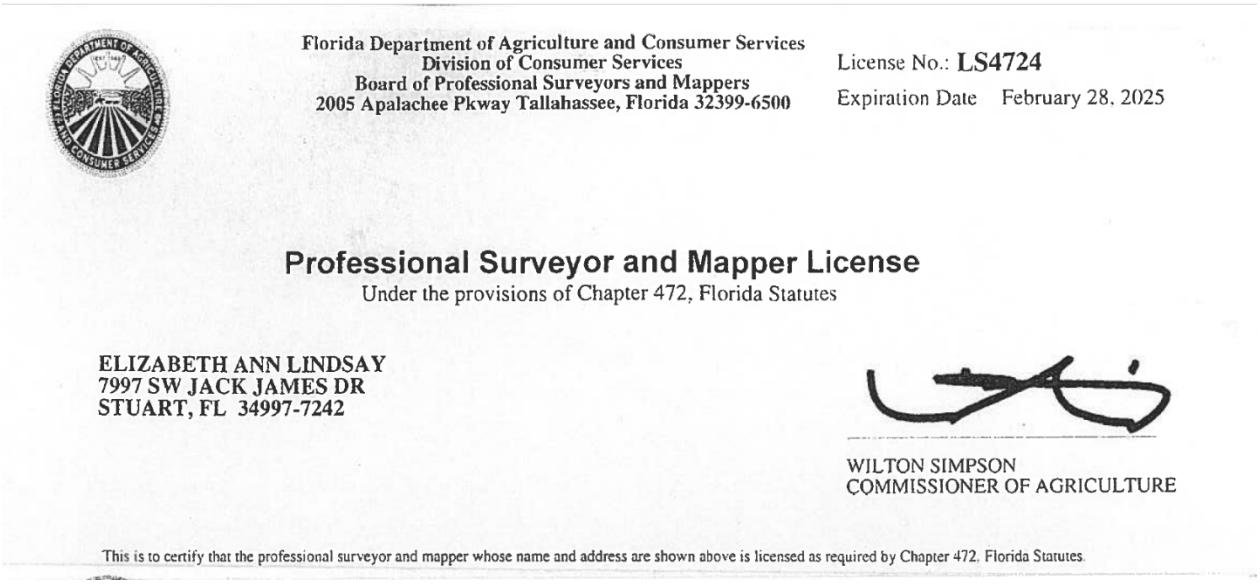

Florida Department of Agriculture and Consumer Services
Division of Consumer Services
Board of Professional Surveyors and Mappers
2005 Apalachee Pkway Tallahassee, Florida 32399-6500

License No.: LS4724
Expiration Date February 28, 2025

Professional Surveyor and Mapper License
Under the provisions of Chapter 472, Florida Statutes

ELIZABETH ANN LINDSAY
7997 SW JACK JAMES DR
STUART, FL 34997-7242

WILTON SIMPSON
COMMISSIONER OF AGRICULTURE

This is to certify that the professional surveyor and mapper whose name and address are shown above is licensed as required by Chapter 472, Florida Statutes.

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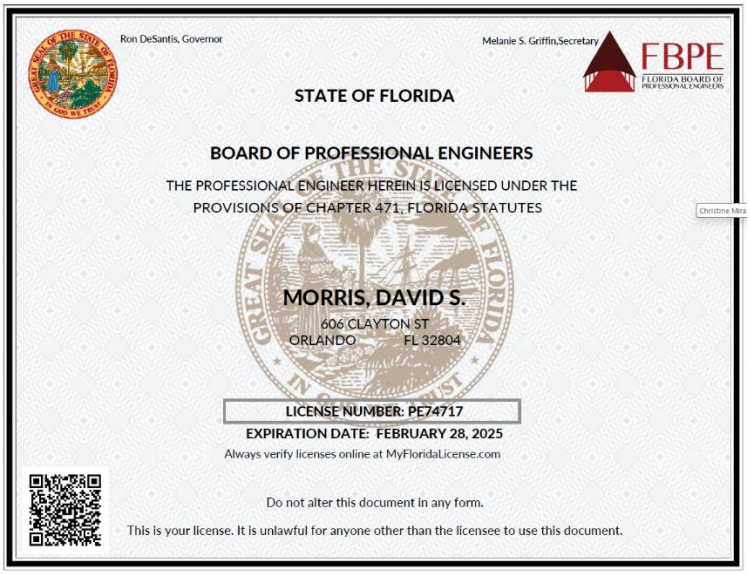

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MORRIS, DAVID S.
606 CLAYTON ST
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SUBCONSULTANTS

We have assembled a team of local, responsive, and cost-effective firms that we believe can provide outstanding services for this project. Our team was selected with the specific needs of the City of Port St. Lucie in mind. Most all the specialty companies on our team have worked successfully with FDD, HCE and/or the City in the recent past and look forward to the opportunity to continue to work with the FDD team in providing continued support to the City of Port St. Lucie. A brief description of the role and qualifications of the design subconsultants is summarized in the following pages.

Hydrogeology Design

McNabb-Miller Hydrogeologic Consulting, Inc. (MMHC), formerly known as McNabb Hydrogeologic Consulting, Inc. is a seven-person, professional geologic/hydrogeologic consulting firm, located approximately 35 miles south of Port St. Lucie in Jupiter Florida, that specializes in providing efficient consulting services for wells completed in the Floridan Aquifer System. As a small firm, every client and project are extremely important. MMHC offers a responsive, efficient, cost-effective, and schedule-driven approach to client services. MMHC has a proven track record of successfully handling large projects. Over the past five years, we have designed, permitted, and provided construction management (CM) services for well construction projects totaling more than $115 million and consulting fees that average $1,656,000 per year.

David McNabb established McNabb Hydrogeologic Consulting, Inc. in 2006, and has provided hydrogeologic services for the City since 2008. He has assisted the City with every injection well permit renewal and mechanical integrity testing project over the last 13 years. In 2024, Rodney Miller partnered with David McNabb and the company name was changed to McNabb-Miller Hydrogeologic Consulting, Inc. (MMHC). Mr. Miller was an onsite staff geologist for the construction and testing of the City's Class I injections at the Westport WWTF and the JEA WTP. Mr. Miller served as the project manager and professional geologist for the City's injection well systems at the Glades WWTF and the Prineville WTP.

As the president of MMHC, David McNabb, P.G. brings over 32 years of South Florida hydrogeologic experience specializing in deep injection design, permitting, and construction management services. Since 2006, Mr. McNabb has specialized in all aspects of deep injection well projects, working on nothing but Class V and Class I injection well projects for the entire time. His strong relationship with injection well regulators (FDEP) results in shortened permitting times for our clients. He will serve as the Principal-in-Charge for this project.

Rodney Miller, P.G. has more than 23 years of experience with a track record of meeting the water supply and wastewater disposal needs of clients. Between 2001 and 2016, Mr. Miller served as a hydrogeologist for the water resources group at a South Florida consulting firm named Arcadis. Mr. Miller has directed numerous Class I injection well systems through design, permitting, construction, testing, reporting and operation and has worked on Class I injection well systems throughout South Florida. Mr. Miller also has provided professional services for the design, construction, testing, monitoring, and rehabilitation of many water-supply wells completed in the Surficial and Floridan Aquifer.

Hydrogeology Modeling and Permitting

Liquid Solutions Group, LLC (LSG) was formed 15 years ago to meet the water resources needs of both utilities and engineering firms. LSG's core expertise includes water resources and water supply engineering, planning, permitting, and modeling for a variety of applications. During the course of its operation, LSG has provided water resources services to a broad array of clients, including large public utilities, small private utilities, utility collaboratives, water management districts, and national

engineering firms. LSG is also certified as a minority business enterprise (MBE) by the State of Florida, Hillsborough County, Orange County, Osceola County, Polk County, and the City of Tampa.

LSG's staff are all licensed in the State of Florida as professional engineers or professional geologists. In addition, all staff have obtained graduate engineering degrees in water resources engineering or geology, and have over 20 years of experience as consulting engineers in Florida. Combined, our staff have over 100 years of combined water resources and hydrogeologic consulting experience in Florida. Furthermore, all LSG engineers are Board Certified Water Resources Engineers (BC.WRE) by the American Academy of Water Resources Engineers (AAWRE), a subsidiary of the American Society of Civil Engineers (ASCE).

LSG staff have performed in a wide variety of water resources projects throughout Florida, including design, permitting and modeling. Recent consumptive use permitting projects include leading the demand projection and groundwater modeling effort for the City of Melbourne as they received the first 30-year duration consumptive use permit (CUP) in the SJRWMD with no RAIs and a significant increase in allocation. Furthermore, LSG strategized, advocated for, and prepared the CUP application that led to Orange County Utilities being issued the first water conservation CUP extension in Florida. LSG is currently involved in 10 separate consumptive use permitting efforts throughout the state. Recent groundwater modeling projects include variable density groundwater flow modeling for the City of Ft. Myers in the SFWMD, variable density groundwater flow and geochemical modeling for the Hillsborough County SHARP Project, variable density groundwater flow modeling for the City of Tarpon Springs concentrate disposal well, and a geothermal modeling effort for a cooling system injection well in Miami-Dade County.

Electrical Engineering and Instrumentation and Control (I&C)

C&W Engineering, Inc. was established in 1992 and provides Electrical and I&C engineering and construction services specializing in municipal facilities. C&W is a certified local Small Business Enterprise (SBE) who is centrally located in West Palm Beach, FL conveniently serving clients (typically civil engineering firms, municipalities and private industry) throughout southeast, southwest and central Florida. C&W's areas of expertise include:

- WTP/WWTP
- Raw Water Supply Wells
- Photometric Analysis
- Pump Stations
- I&C, SCADA, and Telemetry Systems
- Roadway and Parking Lot Lighting
- Power Distribution

C&W has provided electrical and I&C subconsultant services to our clients over the past 30 years on numerous wells and other large projects.

Structural Engineering

Wekiva Engineering, LLC is a consulting engineering firm that provides structural engineering services for projects including water and wastewater facilities. HCE has a working relationship with Wekiva, having worked on various projects together for local utilities such as the City of Port St. Lucie,

Martin County Utilities, and South Martin Regional Utility. In addition to providing structural engineering services, Wekiva is experienced with providing value engineering ideas and solutions and will help ensure the City of Port St. Lucie receives the most cost-effective project design.

Surveying

Betsy Lindsay, Inc. (recently acquired by Haley Ward, Inc.) is a Surveying and Mapping Firm located in Stuart, Florida. The firm is deeply committed to supplying quality surveying services with the same professional staff that you have worked with for the last 25 years and at the present time Haley Ward employs 14 employees, with 4 survey crews. Elizabeth A. Lindsay (Betsy), PLS is the lead Senior Project Surveyor for the Stuart office and has over 45+ years of experience in the Surveying and Mapping Business. Mrs. Lindsay has performed Boundary, Topographic, Quantity, Route, Bathymetric, R/W, Control Survey, and various types of Specific Purpose Surveys. Betsy is well versed in AutoCAD and Softdesk products for the efficient accurate production of survey field data into a quality final survey product. Past experience includes:

- Right of way and topographic surveys for the basis of engineering designs of water, sewer, paving and drainage for numerous projects throughout Palm Beach, Martin, Hendry, Collier, St. Lucie Counties.
- Boundary and Topographic Surveys including the location of wetlands and Mean High water lines to be utilized in engineering designs, subdivision design and preparation of final plats.
- Location of environmentally sensitive lands utilizing traditional survey methods and GPS with RTK.
- Boundary Surveys, Topographic surveys, Title review, legal description preparation and As-Built surveys in support of the restoration of the everglades.
- Establishment of a Geodic baseline using conventional survey methods and development of digital terrain models covering up to 26 miles.
- Data collection and coordination with underground locators for the preparation of detailed Topographical surveys.
- Survey for design of major and minor roadways to Department of Transportation standards.

Geotechnical Engineering

Ardaman and Associates, Inc. is a professional engineering corporation founded in 1959 by Dr. M.E. Ardaman and has continually provided engineering services in the practice of geotechnical engineering. The company was founded in Orlando and has expanded to meet the needs of our client community. Today, Ardaman is one of Florida's largest geotechnical, materials testing, environmental, and geoscience consulting firms. Ardaman employs over 400 professional engineers, scientists, technicians, drilling personnel, technical assistants, and support staff. Over our history, we have worked on more than 150,000 projects throughout the State, the U.S., and worldwide. This vast list of project experience includes services for virtually every type of public and private client associated with development and construction.

Curtis Robinson, P.E.
Client Service Manager
Holtz Consulting Engineers, Inc.

Curtis Robinson joined Holtz Consulting Engineers, Inc. in 2009. Mr. Robinson has over 21 years of experience in the design, permitting and construction administration of water, wastewater, and reclaimed water projects. He has worked on projects in Martin County and neighboring counties totaling over $200 million.

Project Related Experience

Upper Floridan Aquifer Supply Well F-19 – City of Port St. Lucie - HCE is providing professional engineering services related to the survey, geotechnical exploration, design, permitting, bidding, and construction for a new 1,350-foot deep Upper Floridan Aquifer Supply well for the City's James E. Anderson (JEA) Water Treatment Plant. The project design includes the new well, a well head with an 1,840-gpm vertical turbine well pump, a 250 kW LP standby generator, a concrete block building, concrete driveway, fencing, and other site improvements. HCE's team includes a hydrogeologist for well design, an electrical engineer for the electrical and communications design, and a structural engineer for the building design.

Floridan Wellhead F-5 and Raw Water Main- Seacoast Utility Authority – HCE provided surveying, design, permitting, bidding assistance, and construction administrative services for a new Floridan aquifer well including a stainless-steel wellhead, pump, stainless steel discharge piping, and a HDPE and PVC raw water main from the F-5 wellhead to the Hood Road Water Treatment Plant. This project included approximately 3,600 feet of 18-inch raw water main that was installed via open cut and horizontal directional drilling methods parallel to the Eastern Palm Beach-3C Canal and through an existing neighborhood.

Surficial Aquifer Production Well Replacement and Rehabilitation Program – Seacoast Utility Authority-HCE assisted Seacoast Utility Authority with a phased, multi-year program of replacing aged surficial aquifer production wells. HCE has assisted with the replacement of 33 wells in multiple phases. Each phase included separate design documents, permits from the Palm Beach County Health Department and the South Florida Water Management District, and bidding and construction assistance services. The wells were constructed by multiple contractors. The replacement wells are located in the same easements or on the same sites as the original wells. These projects included hydraulic modeling of the raw water system, screened and open-hole wells, new well heads and raw water mains, and associated electrical and instrumentation.

City of Port St. Lucie Glades-Tradition Reuse Water Main Project- HCE provided professional engineering services related to the survey, geotechnical exploration, modeling, design, permitting, bidding, and construction for approximately 12,250 linear foot extension of the City's existing reuse water main originating from their Glades Wastewater Treatment Facility. The proposed extension started from the reuse water main's existing termination near Glades Cut-off Road and extended to the Glades Force Main Repump Station site at the end of SW Tradition Parkway right-of-way. The reuse water main extension allows the City to provide reuse water sales to the Tradition Irrigation Company and provide the transmission for future expansion of the reuse system to future developments.

Martin Downs Inline Booster Pump Station – Martin County Utilities and Solid Waste Department – HCE provided preliminary and final design, permitting, bidding and construction administrative services for an in-line booster pump station at the Martin Downs Master Re-pump Facility. The project included a new pump station with four new duty and jockey chopper-style pumps with VFDs and controlled on influent pressure. Two equalization tanks were included for emergency storage and operations flexibility.

Professional History

2009-Present Holtz Consulting Engineers, Inc.
2003- 2009 LBFH, Inc./Boyle Engineering/AECOM

Education

Bachelor of Science in Civil Engineering, Missouri S&T, 2001
Master of Science in Engineering Management, Missouri S&T, 2003

Registration

Professional Engineer, Registration No. 65685, State of Florida

Harrison Barron, P.E.
Senior Engineer
Holtz Consulting Engineers, Inc.

Harrison Barron is a graduate of the University of Florida and joined Holtz Consulting Engineers, Inc. in October 2016. Since starting at HCE, he has worked as a project engineer on several successful well rehabilitation, water distribution, wastewater collection, and treatment projects, as well as providing permitting and regulatory assistance to various clients.

Project Related Experience

Floridan Wellhead F-5 and Raw Water Main- Seacoast Utility Authority – HCE provided surveying, design, permitting, bidding assistance, and construction administrative services for a new Floridan aquifer well including a stainless-steel wellhead, pump, stainless steel discharge piping, and a HDPE and PVC raw water main from the F-5 wellhead to the Hood Road Water Treatment Plant. This project included approximately 3,600 feet of 18-inch raw water main that was installed via open cut and horizontal directional drilling methods parallel to the Eastern Palm Beach-3C Canal and through an existing neighborhood.

Hood Rd. 36-inch Raw Water Main – Seacoast Utility Authority – HCE provided survey, design, permitting, bidding and construction engineering services for 3,200 linear feet of 36-inch raw water main located in easements and right-of-ways along Hood Road in Palm Beach Gardens, Florida. Over 3,600 linear feet of fiber optic conduit was also designed and constructed as part of the project. The project included PVC, HDPE and ductile iron pipe installed both via open-cut and directional drill methods.

Well Replacement and Improvements Program – Village of Palm Springs –Project engineer for the replacement of Well Nos. 9 & 10 for the Village of Palm Springs. The rehabilitation and replacement of these wells is being executed as multiple projects that are all part of a singular program to improve the Village's raw water systems. The project involves preparation of drawings and specifications of new wellhead piping, valves, pumps, power and controls, as well as connecting the wells to the Village's SCADA system. HCE is also providing construction oversight services, including shop drawing review, conducting progress meetings, and review of contractor applications for payment.

iSIP Projects Neighborhood Water Main and Force Main Replacements – City of Boca Raton– Project manager providing utility locating, geotechnical investigation, survey, design, permitting, bidding and construction services for infrastructure improvements in three neighborhoods. The upgrades generally include construction of larger diameter water mains to replace aged mains, relocation and elimination of rear water service lines, as well as roadway, stormwater, and sidewalk improvements. HCE has completed the design, permitting and construction of the Country Club Village and SW 18th Street neighborhood, which included a 16-inch water main under Interstate-95, and the SW 12th Ave corridor.

Turtle Creek Series Septic to Sewer Conversion- Loxahatchee River District –This project included the survey, design, permitting, bidding, and services during construction of approximately 12,000 linear feet of both gravity and low-pressure sewer systems to serve 138 residences which were on septic systems. The project was broken up into four phases.

Ground Storage Tank Nos. 5, 6, and 7 at the Hood Road Water Treatment Plant – Seacoast Utility Authority- HCE provided professional services for the surveying and site investigation, design, permitting, bidding and construction administration of the addition of three new 2-MG prestressed-concrete ground storage tanks (GST) at the Hood Road Water Treatment Plant (WTP), including associated water main piping extensions, valves and fittings, electrical and instrumentation and site preparation. Work also included various yard piping improvements in the vicinity of the new GSTs.

Professional History

2016-Present Holtz Consulting Engineers, Inc.
2015- 2016 CH2M Hill, Inc.

Education

Bachelor of Science in Environmental Engineering, University of Florida, 2015

Registration

Professional Engineer, Registration No. 91550, State of Florida.

Stephen Fowler, P.E., CGC
Senior Engineer
Holtz Consulting Engineers, Inc.

Mr. Fowler has over 20 years of experience in the design, permitting, and construction of projects that include water and wastewater treatment, pipelines, pump stations, production and injection wells, and reclaimed water production. Mr. Fowler also has experience in construction cost estimating and project management for underground utility general contractors, and in 2016 he obtained his general contractor's license.

Project Related Experience

Village of Palm Springs– Well No. 9 Replacement – Project manager for the engineering and hydrogeological services for the design, permitting, bidding, construction, and testing required to reconstruct one existing surficial aquifer production well in place. HCE performed all coordination with FPL for the design and temporary relocation of existing overhead power lines required to reconstruct the well. HCE completed the design, permitting, and bidding and will provide construction services.

Village of Palm Springs– Kudza Rd Lift Station Emergency Generator – Project manager for the engineering and construction services for the design, permitting, bidding, and services during construction for the installation of an emergency generator and automatic transfer switch at the Kudza Road Lift Station. HCE performed the design, permitting, and bidding and will provide construction services.

Lift Station 12 Improvements– City of Lake Worth Beach – Project manager that provided engineering, permitting, and construction services for a new submersible pump station to replace the existing pump station at the Palm Beach State College Lake Worth Campus. The existing pump station was a two-story building with a below-grade dry pit and wet well.

Emergency Lift Station No. 88 Force Main Replacement– Seacoast Utility Authority – Mr. Fowler was the project manager for the survey, design, permitting, and construction of approximately 1,500 LF of 8" force main along Hood Road and the rehabilitation of Lift Station No. 88 including cleaning and recoating of the wet well, replacing the base plates, base elbows, riser piping, and all above-grade valves and piping. Also included is the disassembly and removal of the temporary force main and all restoration.

Hood Road 36-inch Raw Water Main– Seacoast Utility Authority – Mr. Fowler was the project manager for the survey, design, permitting, bidding and construction engineering services for 3,200 linear feet of 36-inch raw water main located in easements and right-of-ways along Hood Road in Palm Beach Gardens, Florida. Over 3,600 linear feet of fiber optic conduit was also designed and constructed as part of the project. The project included multiple pipe materials which were installed via both open-cut and directional drill methods.

Wastewater Treatment Plant Safety Improvements – South Martin Regional Utility – HCE provided the design, furnishing, and installation of several elevated aluminum platforms and stairways to provide the plant staff safe access to various areas and pieces of equipment for maintenance and operation. The project also included the design of upgraded LED lighting and additional site lighting to be implemented later.

Avenue U and Avenue C Repump Station Improvements- Riviera Beach Utilities Special District – HCE provided survey, design and permitting, and construction administrative services for civil mechanical, and electrical upgrades to the District's potable water repump stations located at Avenue C and Avenue U. At Avenue C, improvements include replacement of station piping, replacement of 60-HP and 70-HP booster pumps, installation of a new generator, and removal of an underground propane fuel tank. At Avenue U, improvements include replacement of lift station piping, installation of two new 100-HP booster pumps, and replacement of existing electrical equipment.

Professional History

2013-Present Holtz Consulting Engineers, Inc.
2013- 2013 Johnson Davis, Inc.
2010-2013 AKA Services, Inc.
2004-2010 LBFH, Inc./Boyle Engineering/AECOM

Education

Bachelor of Science in Environmental Engineering, University of Florida, 2003

Registration

Professional Engineer, Registration No. 69039, State of Florida
Certified General Contractor, Florida, Registration No. CGC1525114

Christine Miranda, P.E.
Senior Engineer
Holtz Consulting Engineers, Inc.

Christine Miranda has been a Client Service Manager and Project Manager with Holtz Consulting Engineers, Inc. since 2012. Ms. Miranda is experienced in successfully managing multiple projects, from small, fast paced projects to large projects with numerous disciplines and subconsultants. She brings over 25 years of experience in the design of water treatment and distribution systems, pumping stations, permitting, and SRF funding assistance.

Project Related Experience

Hood Rd. 36-inch Raw Water Main – Seacoast Utility Authority – HCE provided survey, design, permitting, bidding and construction engineering services for 3,200 linear feet of 36-inch raw water main located in easements and right-of-ways along Hood Road in Palm Beach Gardens, Florida. Over 3,600 linear feet of fiber optic conduit was also designed and constructed as part of the project. The project included PVC, HDPE and ductile iron pipe installed both via open-cut and directional drill methods.

City of Stuart Reverse Osmosis Water Treatment Plant- City of Stuart - HCE is responsible for the design of the stormwater management, site work, and yard piping for this 1.5 MGD upgrade to the City of Stuart Water Treatment Facility. The project also included a design of an approximate one-mile 12" RO concentrate force main from the water treatment plant to a deep well injection at the wastewater plant. The site work consisted of new driveways, fencing, stormwater management including two rain gardens, and yard piping to connect the new and existing facilities. Permitting was required through FDEP for the stormwater management and the City of Stuart for the site plan and associated work. HCE is also responsible for the State Revolving Fund (SRF) administration during construction for this project.

iSIP Projects Neighborhood Water Main and Force Main Replacements – City of Boca Raton– HCE is providing utility locating, geotechnical investigation, survey, design, permitting, bidding and construction services for infrastructure improvements in three neighborhoods. The upgrades generally include construction of larger diameter water mains to replace aged mains, relocation and elimination of rear water service lines, as well as roadway, stormwater, and sidewalk improvements. HCE has completed the design, permitting, and construction of the Country Club Village and SW 18th Street neighborhood, which included a 16-inch water main under Interstate-95, and the SW 12th Ave corridor.

Water Distribution Improvements - City of Stuart
Project included design, permitting, and Florida Department of Environmental Protection (FDEP) State Revolving Fund funding assistance, of approximately 59,000 linear feet of 6-inch through 12-inch water mains in existing residential neighborhoods and commercial developments for the City of Stuart. The new mains replaced inadequately sized mains, looped dead ends, old mains, and increase fire protection for the City. The mains are located in City, County, and FDOT right-of-ways.

Port St. Lucie Blvd. Utility Adjustment Plans– City of Port St. Lucie – This project includes preparation of water and sewer utility adjustment engineering plan sheets for three separate projects along Port St. Lucie Blvd. Plan and profile utility sheets based upon FDOT standards were prepared based upon the contract roadway and drainage plans. Utility adjustments for both the water and sewer system included adjustments in place, relocations of several portions of water main and force main systems within the project corridor, and the inclusion of additional fittings and/or extension of mains to provide connections for future development.

Professional History

2012-Present Holtz Consulting Engineers, Inc.
1999-2012 LBFH Inc./Boyle Engineering/AECOM

Education

Bachelor of Science in BioResource Engineering, Rutgers University, 1999

Registration

Professional Engineer, Registration No. 60906, State of Florida

Professional Affiliations

Florida Water Environment Association, Past Director-At-Large

Benjamin Fecko, P.E.
Senior Engineer
Holtz Consulting Engineers, Inc.

Benjamin Fecko holds a Bachelor and Master's degrees in civil engineering from Penn State University. Ben has over 17 years of experience in providing client and engineering services for local water and wastewater utilities. He excels at wastewater distribution and collection system design, permitting, and construction management and, since starting in September 2020, has already become an important member of the HCE team.

Project Related Experience

City of Port St. Lucie Glades-Tradition Reuse Water Main Project- HCE provided professional engineering services related to the survey, geotechnical exploration, modeling, design, permitting, bidding, and construction for approximately 12,250 linear foot extension of the City's existing reuse water main originating from their Glades Wastewater Treatment Facility. The proposed extension started from the reuse water main's existing termination near Glades Cut-off Road and extended to the Glades Force Main Repump Station site at the end of SW Tradition Parkway right-of-way. The reuse water main extension allows the City to provide reuse water sales to the Tradition Irrigation Company and provide the transmission for future expansion of the reuse system to future developments.

Wastewater Treatment Plant and Lift Station Improvements – Village of Indiantown – HCE is providing design and permitting services for proposed improvements at the WWTP to increase the annual average daily flow by 0.45 MGD to a total of 1.2 MGD, AADF, while also providing Class I reliability for operation of the plant, which is required prior to modifying the Village's reuse system to be able to provide Part III Reuse to residential customers. HCE is also providing design and permitting services for the replacement of the 150th Street and Famel Lift Stations as well as rehabilitation and upgrade of the New Hope Lift Station, including all related mechanical, electrical, piping and site work.

Sailfish Ball Field Force Main Replacement – City of Stuart – HCE provided design, permitting, and bidding assistance for the replacement of a portion of the 24-inch force main system located at the Stuart Middle School property. This force main segment went beneath the Middle School property, was adjacent to above grade improvements, and had shown indications of it being at the end of its useful life in the recent years. The existing force main was constructed of unlined ductile iron and based on existing flows at the wastewater reclamation facility was oversized. A new 20-inch force main was routed around the Middle School property for an approximate length of 2,220 linear feet. The new mains were installed by both open-cut and horizontal directional drill methods.

Port St. Lucie Boulevard Utility Relocations- City of Port St. Lucie – HCE completed the design of water and sewer utility relocations over a stretch of 1.8 miles of Port St. Lucie Blvd. in the City of Port St. Lucie, FL. The relocation of utilities was required in coordination for the proposed widening of the roadway and associated drainage improvements along the same route from Parr Drive to Darwin Blvd. The force main and water mains to be relocated varied in size from 2-in to 16-in diameter.

City of Stuart Reverse Osmosis Water Treatment Plant- City of Stuart - HCE is responsible for the design of the stormwater management, site work, and yard piping for this 1.5 MGD upgrade to the City of Stuart Water Treatment Facility. The project also included a design of an approximate one-mile 12" RO concentrate force main from the water treatment plant to a deep well injection at the wastewater plant. The site work consisted of new driveways, fencing, stormwater management including two rain gardens, and yard piping to connect the new and existing facilities. Permitting was required through FDEP for the stormwater management and the City of Stuart for the site plan and associated work.

Professional History

2020-Present Holtz Consulting Engineers, Inc.
2017-2020 Giangrande Engineering and Planning
2011-2017 Gonzalez Companies (St. Louis, MO)
2006-2011 Boyle Engineering/AECOM

Education

Bachelor of Science in Civil Engineering, The Pennsylvania State University, 2004
Master of Science in Civil Engineering, The Pennsylvania State University, 2006

Registration

Professional Engineer, Registration No. 70865, State of Florida

Matthew Paymer, P.E.
Senior Engineer
Holtz Consulting Engineers, Inc.

Matthew Paymer joined Holtz Consulting Engineers, Inc. in June 2015. Since starting at HCE, he has served as a project engineer for the design, permitting, and construction administration of water, wastewater and reclaimed water projects. Matt is a skilled hydraulic modeler and has developed utility models for several clients in South Florida.

Project Related Experience

Western Utility Extension Wastewater System Modeling– Martin County Utilities –HCE provided modeling services to evaluate providing wastewater services to several existing and proposed entities located along the SW Martin Highway corridor between Interstate I-95 and Florida's Turnpike. The project included the sizing, preliminary design, and preliminary cost estimates of over 35,000 linear feet of 4, 6, and 8-inch PVC force main along SW Martin Highway, SW Citrus Blvd., and SW Bush St. required to connect wastewater flow from the Western Utility Extension to the existing MCU wastewater transmission system. HCE also determined the expected peak-hour wastewater flows and connection pressures of the Western Utility Extension entities. Additionally, the project determined the impacts to, and associated improvements required for, the MCU wastewater force main transmission system resulting from the addition of peak-hour wastewater flow from the Western Utility Extension.

Golden Gate Wastewater Modeling– Martin County Utilities –HCE assisted Martin County Utilities by updating their existing wastewater master plan and hydraulic model to incorporate additional wastewater flow to the existing wastewater transmission system due to the construction of new developments within the Tropical Farms service area, most notably the Golden Gate development. The existing MCU wastewater hydraulic model includes numerous MCU owned and operated wastewater pump stations, miles of wastewater pipeline, two (2) inline booster pump stations, and the Tropical Farms Wastewater Treatment Facility. HCE evaluated the expected peak-hour wastewater flows and new lift stations that would connect to the existing MCU wastewater transmission system. HCE worked with MCU to determine a phasing plan that determined the anticipated sequence that new developments would connect to the existing wastewater transmission system. HCE created new hydraulic model scenarios that matched the wastewater flows developed in the master plan update and phasing plan. HCE analyzed the results of the model scenarios to identify additional improvements to the existing MCU wastewater transmission system necessary to support the construction of the new developments during each phase. Improvements to the existing wastewater transmission system included the construction of parallel pipelines and improvements to the existing Dixie Park Inline Booster Pump Station.

Potable, Reclaimed, and Wastewater System Modeling – Seacoast Utility Authority – Matt has developed several calibrated hydraulic models for Seacoast Utility Authority (SUA) of the potable water distribution system, reclaimed water transmission system, and wastewater transmission system and, utilizing those calibrated models, performed several hydraulic modeling scenarios. The hydraulic models were drawn in the ESRI GIS environment as fully connected geometric networks and then imported and developed using Innovyze Infowater hydraulic modeling software. Pipes were assigned diameters and roughness coefficients based on size and material from available SUA record drawings or GIS, node elevations were assigned based on USGS lidar topography, and model boundary conditions were assigned based on information from SUA staff. The models were calibrated to most closely match SCADA records during peak flow conditions or various field tests if applicable (i.e. hydrant flow tests).

Professional History

2015-Present Holtz Consulting Engineers, Inc.

Education

Bachelor of Science in Environmental Engineering, University of Florida, 2015

Registration

Professional Engineer, Registration No. 88732, State of Florida.

Certifications

WaterGEMS Certified Master Modeler

Kristin Fecko, P.E.
Senior Engineer
Holtz Consulting Engineers, Inc.

Kristin Fecko holds Bachelor's and Master's degrees in civil engineering from Syracuse and Penn State University, respectively. She also has a Master's in Technical Communications from the University of Central Florida. Kristin has over 16 years of experience in providing grant research, application, and management experience. She joined HCE in April 2022.

Project Related Experience

SRF, Sewer System Pipe Lining and Vacuum Truck Purchase – City of Lake Worth Beach – HCE is providing planning, design, bidding, and loan application assistance to the City of Lake Worth Beach for their pipe lining remediation program. HCE researched capital purchase regulations to help the City optimize the replacement of their existing vacuum truck. This is a phased program, and HCE is assisting the City to prioritize areas for lining and repair based on a Wastewater Infiltration & Inflow Study of its system.

FDEP Resilient Florida – City of Port St. Lucie, City of West Palm Beach, City of Lake Worth Beach, City of Riviera Beach – HCE submitted planning and implementation funding applications on behalf of several clients to the FDEP Resilient Florida Program. Projects included vulnerability assessments, adaptation planning, stormwater and wastewater improvements to help cities adapt to sea level rise and climate changes. To date, multiple applications have been funded, including nearly $9 million in wastewater improvements.

Fire Department Support Grants - City of Riviera Beach – HCE has submitted applications for funding assistance for the Riviera Beach Fire Rescue department, including applications to the Solid Waste Authority of Palm Beach County, the Firehouse Subs Public Safety Foundation, and FEMA Assistance to Firefighters Grant programs. HCE met extensively with Fire Rescue staff to understand equipment and facility needs.

FDEM Residential Undergrounding of Power Lines- Village of Golf - HCE is responsible for the grant application and management for a nearly $2.2 million power line undergrounding initiative throughout the Village. HCE coordinates with the project engineer, manager, Village staff, and State personnel to manage reimbursements to the Village, maintain documentation, and provide closeout services at the completion of project construction.

FDEM Low Pressure Grinder Electrical Panel Replacements – City of Port St. Lucie - HCE provided design, bidding, construction management, and grant application and management support to replace nearly 1,000 residential electrical panels with generator receptacles. This allows for residential sewage stations to pump immediately after storm events and prevent sewage overflows at multiple low pressure grinder locations.

Funding Research – City of Port St. Lucie, City of Lake Worth Beach, City of Riviera Beach, Village of Tequesta - HCE provides research and networking support to assist clients in finding funding opportunities and encourage regional partnerships, in order to help realize planned capital projects and system analyses.

Professional History

2022-Present Holtz Consulting Engineers, Inc.,
2019- 2022 Cotleur & Hearing (FPL Contract)
2016-2018 Giangrande Engineering & Planning
2014-2015 Gonzalez Companies
2011-2013 St. Louis University
2005-2011 LBFH, Inc./Boyle Engineering/AECOM

Education

Bachelor of Science cum laude in Civil Engineering, Syracuse University, 2003
Master of Science in Civil Engineering, The Pennsylvania State University, 2005

Master of Arts in English, Technical Communications, University of Central Florida, 2014

Registration

Professional Engineer, Registration No. 69812, State of Florida

Brad Gilbert, E.I.
Associate Engineer
Holtz Consulting Engineers, Inc.

Brad Gilbert is a graduate of Florida Gulf Coast University and joined Holtz Consulting Engineers, Inc. full-time in August 2022 after being an intern the summer prior. Since starting at HCE, he has served as a project engineer for the design, permitting, and construction administration of several water and wastewater projects and has assisted in grant writing and administration on several projects. Brad is skilled in hydraulic modeling and has developed utility models for clients in South Florida.

Project Related Experience

S Congress Ave Force Main Project– Village of Palm Springs –HCE provided modeling services to evaluate providing wastewater services to several existing and proposed entities located along the S Congress Ave corridor between Forest Hill Blvd and Summit Blvd. The project included the sizing, preliminary design, and preliminary cost estimates of 5,600 linear feet of 4-inch force main.

Reconstruction of Surficial Aquifer Wells No. 9 & 14– Village of Palm Springs –HCE provided professional services for the survey, modeling, design, permitting, bidding, assistance, and construction administration for the rehabilitation and replacement of existing surficial aquifer wells. The projects involve hydraulic modeling of the Village of Palm Spring's raw water system, pump selection, preparation of drawings and specifications of new wellhead piping, valves, pumps, power and controls, as well as connecting the wells to the Village's SCADA system. HCE is also providing construction oversight services, including shop drawing review, conducting progress meetings, and review of contractor applications for payment.

Grant Administration for Low Pressure Grinder Electrical Panels Replacement– City of Port St. Lucie – HCE prepared the grant application that was awarded for the City of Port St. Lucie replacement of 991 residential low-pressure grinder pump station electrical panels with new panels that include generator receptacles. HCE also provided grant management and administration services during the project including monthly and quarterly progress reports, review of preconstruction videos, pay applications, and project close-out forms.

iSIP Projects Neighborhood Water Main and Force Main Replacements – City of Boca Raton– HCE provided utility locating, geotechnical investigation, survey, design, permitting, bidding and construction services for infrastructure improvements in several neighborhoods. The upgrades generally include construction of larger diameter water main and force mains to replace aged mains, relocation and elimination of rear water service lines, as well as roadway, stormwater, and sidewalk improvements. HCE has completed the design, permitting and construction of the Boca Square neighborhood, which included installation of approximately 2,500 linear feet of 12" DIP force main and 23,300 linear feet of water main ranging from 4" to 12".

Wastewater Hydraulic Modeling and Master Plan– South Martin Regional Utilities – Brad is developing a calibrated hydraulic model for South Martin Regional Utilities (SMRU) of the wastewater transmission system. The model will be used to evaluate infrastructure improvements required to meet future conditions based on estimated wastewater flows from planned developments and potential build-out developments based on zoning in the service area. The hydraulic model was created using the Bentley WaterGEMS hydraulic modeling software. Pipes were assigned diameters and roughness coefficients based on size and material from available SMRU record drawings or GIS, node elevations were assigned based on USGS lidar topography, and model boundary conditions were assigned based on information from SMRU staff.

Professional History

2022-Present Holtz Consulting Engineers, Inc.

Education

Bachelor of Science in Environmental Engineering, Florida Gulf Coast University, 2022

Registration

Engineer Intern, License No. 1100026149, State of Florida.

Lawrence Lardieri, P.E.
Principal Engineer
Holtz Consulting Engineers, Inc.

Lawrence Lardieri brings over 47 years of comprehensive utility engineering experience to the HCE team. Mr. Lardieri has diverse experience in the water and wastewater sector, and has worked on projects including master planning, sanitary sewer collection/transmission, pump station design, and facility rehabilitation, among others. As part of this contract, he will provide design, general engineering guidance and quality assurance.

Project Related Experience

Emergency Lift Station No. 88 Force Main Replacement– Seacoast Utility Authority – HCE provided survey, design, permitting, and construction administration services of approximately 1,500 LF of 8" force main along Hood Road and the rehabilitation of Lift Station No. 88 including cleaning and recoating of the wet well, replacing the base plates, base elbows, riser piping, and all above-grade valves and piping. Also included was the disassembly and removal of the temporary force main and all restoration.

iSIP Projects Neighborhood Water Main and Force Main Replacements – City of Boca Raton– HCE is providing utility locating, geotechnical investigation, survey, design, permitting, bidding and construction services for infrastructure improvements in three neighborhoods. The upgrades generally include construction of larger diameter water mains to replace aged mains, relocation and elimination of rear water service lines, as well as roadway, stormwater, and sidewalk improvements. HCE has completed the design, permitting, and construction of the Country Club Village and SW 18th Street neighborhood, which included a 16-inch water main under Interstate-95, and the SW 12th Ave corridor.

26th Street & Flagler Drive Stormwater Improvements – City of West Palm Beach – Assisting the City of West Palm Beach with the replacement of all underground public utilities along 26th Street including water, gravity sewer, and stormwater. HCE is providing professional engineering services including field investigation, survey, and design for numerous existing utilities in an existing residential neighborhood along 26th street in West Palm Beach. In addition to complete utility replacement, this project includes roadway reconfiguration, design of new crosswalks and traffic calming facilities, and improvements to the existing landscaping. This project includes significant amounts of public outreach and coordination with the City and includes unique challenges due to the age of the existing infrastructure.

Wastewater Treatment Plant and Lift Station Improvements – Village of Indiantown – HCE is providing design and permitting services for proposed improvements at the WWTP to increase the annual average daily flow by 0.45 MGD to a total of 1.2 MGD, AADF, while also providing Class I reliability for operation of the plant, which is required prior to modifying the Village's reuse system to be able to provide Part III Reuse to residential customers. HCE is also providing design and permitting services for the replacement of the 150th Street and Famel Lift Stations as well as rehabilitation and upgrade of the New Hope Lift Station, including all related mechanical, electrical, piping and site work.

Tropical Farms Wastewater and Water Treatment Facilities - Martin County - Engineer of record for and directed design and permitting of the on-site master surface water management system for expansion of the existing wastewater treatment plant and water treatment plant, both located on the same site. Was also responsible for preparation of the paving, grading, and drainage improvements, and design of four on-site wastewater lift stations.

Professional History

2020-Present Holtz Consulting Engineers, Inc.
1989- 2020 LBFH, Inc./Boyle Engineering/AECOM
1988-1989 William M. Bishop Consulting Engineers
1986-1988 R.J. Vilardi and Associates, Inc.
1984-1986 Lardieri Engineering and Construction
1975-1984 Palm Beach County Water Utilities/Seacoast Utilities Authority
1974-1975 City of Boynton Beach

Education

Bachelor of Science in Civil Engineering and Construction Technology, Temple University, 1974

Registration

Professional Engineer, Registration No. 26948, State of Florida

David McNabb, P.G.

McNabb-Miller Hydrogeologic Consulting, Inc.

Project Related Experience

McNabb-Miller Hydrogeologic Consulting, Inc. (2006-present) - President/Senior Hydrogeologist

Florida Power & Light Turkey Point Clean Water Recovery Center Injection Well System – Provided design and permitting services for the FPL Clean Water Recovery Center Class I injection well system. Currently providing construction administration services for the injection well system. This project is being performed with Holtz Consulting Engineers, Inc. as a sub-consultant to McNabb-Miller Hydrogeologic Consulting, Inc.

City of Hollywood Southern Regional WWTP Deep Injection Wells Design and Permitting – Provided design, permitting and construction administration services for the deep injection well system at the City's Southern Regional WWTP.

Ft. Lauderdale Prospect Lake WTP Deep Injection Well System – Provided design and permitting services for the Ft. Lauderdale Prospect Lake Clean Water Center WTP. Currently providing construction administration services for the injection well system.

Florida Power & Light Okeechobee Clean Energy Center Deep Injection Well System – Provided design, permitting, construction administration and reporting services for the deep injection well system at the FPL Okeechobee Clean Energy Center.

Florida Power & Light West County Energy Center Deep Injection Well System – Provided design, permitting, construction administration and expert witness services for the deep injection well system at the FPL West County Energy Center. Also provided mechanical integrity testing and injection well system permit renewal services.

Fort Pierce Utilities Authority Water Treatment Facility Industrial Deep Injection Well IW-2 – Provided consulting services for design and permitting of Class I Industrial deep injection well IW-2 at the Authority's Water Treatment Facility.

Port St. Lucie Injection Well Systems – Provided regulatory compliance assistance for each of the City's deep injection well systems. Services provided included operating permit renewals and mechanical integrity testing of the City injection well systems. Additional services included plugging and abandonment of the Northport WWTP injection well system, acidization of the Glades WWTP injection well, and repair of the JEA WTP injection well.

LBFH, Inc. (2003 – 2006) - Hydrogeology Manager

Hydrogeology manager focused primarily on deep injection well, Aquifer Storage and Recovery (ASR) well, and production well design, permitting and construction management projects.

Arcadis, Inc. (2002 – 2003) - Deep Injection Well Services Program Manager

Served as the firm's program manager for deep injection well design, permitting, and construction oversight projects. Duties included project business development for deep injection well projects. Additional responsibilities included technical quality control of Groundwater Program projects.

CH2M HILL, Inc. (1995 – 2002) - Project Manager and Hydrogeologist

Was responsible for managing projects involving siting, design, construction oversight, testing, and obtaining permits for deep injection wells and ASR wells.

Florida DEP, Underground Injection Control (1992-1995) - Professional Geologist

Responsibilities included the review and evaluation of Class I and Class V injection well and ASR well permit applications and proposed well construction and testing plans.

Mobil Oil Corporation (1987-1992) - Exploration Geologist

Was responsible for conducting large-scale regional geologic studies to assess the hydrocarbon potential of numerous Mesozoic rift basins. Also conducted short-term and long-term mapping projects for much of Southeast Asia and South America, using conventional and computer-aided techniques.

Education

1985, B.S. Geology, Indiana University
1991, M.S. Geology, University of Texas at Arlington

Rodney J. Miller, P.G.

McNabb-Miller Hydrogeologic Consulting, Inc.

Project Related Experience

McNabb-Miller Hydrogeologic Consulting, Inc. (2024-present) - Vice President/Senior Hydrogeologist

Ft. Lauderdale Prospect Lake WTP Deep Injection Well System – Providing construction administration services and technical support for the Ft. Lauderdale Prospect Lake WTP. This project is being performed while teamed with Brown & Caldwell. Drilling is scheduled to commence in February 2024.

FPL Turkey Point CWRC Deep Injection Well System – Providing construction administration, technical support and partial onsite oversight services. Injection well DIW-2 and dual-zone monitor well DZMW-2 complete and being operationally tested as of July 2024. Construction of the second and final injection well (DIW-3) ongoing as of July 2024.

Port St. Lucie Westport WWTF Injection Well System – Prepared report tabulating, plotting and interpreting water quality data for 2023. Prepared similar reports for several previous years.

JLA Geosciences, Inc., Jupiter, FL (2016 to 2024) - Senior Hydrogeologist

FPL Okeechobee Clean Energy Center Floridan Aquifer Wells – Professional geologist and client contact for construction of six large-diameter Floridan Aquifer production wells; five wells completed in the Upper Floridan Aquifer (UFA) and one dual-zone well completed in the UFA and Avon Park Producing Zone. Project includes a multi-well aquifer performance test and analysis. Project completed under an aggressive 24 hours per day, seven days per week schedule. Responsible for construction management and field oversight. Prepared construction and testing completion reports.

Stuart Floridan Aquifer Test Well – Prepared design and technical specifications for bidding of subsurface portion of a Floridan Aquifer test well. Performed contract administration, construction management and oversight. Prepared construction and testing completion report.

Palm Beach County Lake Region (Belle Glade) Floridan Aquifer Well – Performed contract administration, construction management and oversight of a Floridan Aquifer production well. Prepared construction and testing completion report.

FPL Turkey Point Cooling Canal System – Prepared plan and specifications to perform testing and rehabilitation of multiple Floridan Aquifer supply wells used for supplemental water into the cooling canal system. Prepared specifications and performed construction management of two additional Floridan Aquifer wells. Performed contract administration with Holtz Consulting Services and Florida Design Drilling to equip the wells with vertical turbine pumps, electrical and instrumentation.

Arcadis, West Palm Beach, FL (2001 to 2016) - Hydrogeologist / Senior Hydrogeologist

Sunrise – Performed lead role in contract administration, construction management and oversight of two Floridan Aquifer test wells. Provided oversight and analyzed comprehensive testing performed to evaluate complex hydraulic and water quality profile. Florida Design Drilling performed the drilling and construction services.

Tequesta, Seacoast Utility Authority (SUA), Highland Beach – Performed construction oversight and conducted aquifer performance testing of four separate Floridan Aquifer production wells.

Education

1999, B.S. Geology, Ashland University, Ohio
1999, B.S. Environmental Science, Ashland University, Ohio

Professional Licenses

State of Florida, Professional Geologist, No. 2504

Brian Megic, PE, D.WRE | Principal Engineer

Firm/Location:
LSG, Geneva, FL

Education:
ME, Civil Engineering, University of Florida, 1998
BSCE, Civil Engineering, University of Florida, 1996

Years of Experience:
26

Registrations & Certifications:
Professional Engineer No. 58112 (FL) and No. 95024 (TX)

Highlights:
Currently tracking WMD WUPs, rulemaking issues and performing WUP modeling for Toho

Has provided water resources engineering, facilitation, permitting, peer review, and water supply advocacy services to the STOPR Group utility consortium since their inception in 2006

Expert user of regional groundwater flow models developed by the water management districts

SFWMD WUP Modification, Toho, 2020-2022: Providing groundwater modeling in support of a WUP modification to the SFWMD to consolidate Toho's main and Northeast District WUPs, modify the currently permitted wellfield pumping distribution, and add Toho's proposed 160-Acre Site AWS Project, which will increase Toho's groundwater allocation from approximately 45 to 53 MGD AADF. Mr. Megic is also assisting with the development of water and reuse demand and non-potable water supply projections to support the application.

WUP Tracking and Reporting, Toho, 2020-Present: Performing a weekly review, evaluation, and report of new WUP or WUP modification applications submitted to the SFWMD within Osceola County. Applications are reviewed to determine if they could have an adverse impact on Toho, or if the applicants are existing or potential new customers to the water or reuse systems.

STOPR Group Water Supply Planning, Advocacy, and Peer Review Services, 2006–Present: On-going professional water resources engineering consulting, permitting, peer review, and water supply advocacy services on the following specific tasks:

- 2020 CFWI RWSP Development (2017-2020): On the Hydrologic Analysis Team (HAT) developing the East Central Florida Transient–Expanded (ECFTX) groundwater flow model and the Groundwater Availability Team (GAT) estimating the Floridan aquifer sustainable yield.
- CFWI Rule Development (2020-2021): Served as a technical representative assisting with the review and development of proposed water use permitting rule language related to impact analyses, saline water intrusion, and conservation (completed in June 2021).
- SFWMD Reservation Development (2007-2021): Reviewing, evaluating and commenting on the SFWMD's Kissimmee Basin Reservation rule and models developed (completed February 2021).
- Evaluation of recent FDEP wastewater and reuse regulations (on-going).
- 2015 CFWI RWSP Development: Representative on the HAT developing the ECFT groundwater model; the MFL team developing MFL constraints for the RWSP; the GAT estimating the sustainable yield of groundwater resources; the RWSP team in developing reclaimed water supply and demand projections; and water supply advocacy review of the RWSP.

Indian Ridge SFWMD WUP; Toho; Osceola County, Florida; 2019-2020: Performed regional transient groundwater modeling in support of a modification to integrate Toho's Seralago GC WUP allocation into Toho's Indian WUP.

Northeast District SFWMD WUP; Toho; Osceola County, Florida; 2018-2019: Developed potable and reclaimed water demand projections and performed regional groundwater modeling of a new 2 MGD groundwater withdrawal and associated 2 MGD allocation reduction via substitution credit.

Education
BS in Electrical Engineering, 1993
Florida Atlantic University

FL Registration:
PE No. 60755

Professional Associations:
Florida Engineering Society (FES)
Florida Institute of Consulting Engineers (FICE)

Professional Experience:
C&W Engineering, Inc. - 5 years
MAG Engineering – 14 years
Delta G Consulting – 9 years
Smith Seckman Reid, Inc. – 2 years
Steven Feller, P.E. – 3 years
C&W Engineering – 2 years
Teele & Associates – 1 year

Michael A. Guida, P.E.

C&W Engineering, Inc. - President/Electrical Engineer

Professional Employment History

Michael has over 30 years of proven experience in commercial, industrial, health care, educational, residential and photovoltaic designs for construction. His experience includes electrical engineering design and project management of various municipal, commercial, industrial, educational and health care facilities. He has project managed and coordinated/designed projects with Electrical, HVAC, Plumbing and Fire Protection systems through to completed construction. He has a firm knowledge of FFPC, NFPA codes, Florida Building Code and of course NEC.

Representative Projects

Palm Beach County Lift Station Rehabilitation Project B, Bid Pkg. 2
Work Included new service wires, conduit, main service, control panel; sizing for pumps and voltages.

Okeechobee Deep Well Injection System
Designed two new deep injection wells including power and control systems monitored remotely through SCADA.

Okeechobee Utility Authority Water Treatment Plant – High Service and other Plant improvements
The work included filter effluent transfer pump rehabilitation and provided server improvements to the ground storage tank, a new sludge thickener, including new high service pump station, modifications to the existing electrical system and a new main breaker.

Martin County Golden Gate Vacuum Sewer Pump Station
The project included conversion of septic to vacuum sewer including a new pump station building with VFD equipment, generator, ATS switch, building lighting and miscellaneous field instruments.

West Palm Beach ECR Water Reclamation Facility
The project included GBT building, HVAC evaluation and design, electrical and HVAC load calculations, design.

Palm Beach A-7 Pump Station
Upsizing of pumps to 12HP, reuse the power service, reuse and modify control panel, wet well level control system, RTU points.

Palm Beach E-3 and G-9 Sanitary Pump Station Improvements
The work included Electrical Engineering and design of new control panels, conduits, service conductors, main breakers. New RTU system, as needed. New remote telemetry system.

Pembroke Pines WWTP Rehabilitation, Phase 1
The project included Electrical Engineering and design of new control panels, conduits, service conductors, main breakers. RTU system, as needed and new remote telemetry system.

C&W Engineering, Inc.
6903 Vista Parkway North, Suite 10
West Palm Beach, FL 33411
(561) 642-5333

David S. Morris, P.E.
Principal Engineer
Wekiva Engineering, LLC

Summary

Mr. Morris has 18 years of experience in the field of structural engineering, where he has been intimately involved during all phases of design and construction for new and existing structures and facilities. In addition, he routinely performs field observations and performs structural evaluations of existing structures. His technical expertise combined with his knowledge and experience of construction practices results in effective and economical designs with exceptional results.

Experience

Mr. Morris has especially extensive experience providing structural engineering services for infrastructure projects, including water treatment, wastewater treatment and water conveyance facilities. Mr. Morris' responsibilities include performing structural calculations and the preparation of structural calculations. Mr. Morris can conduct analysis based on sound fundamental principles including finite element modeling in commercial software packages (Risa-3D and Autodesk ROBOT Structural Analysis). He has provided structural engineering services to government agencies, consulting engineers, architects and other design professionals alike. His structural engineering experience includes the design of environmental structures, low-rise building structures, reservoirs, retaining walls, spillways and channel structures.

An exemplary listing includes:

- City of Port St. Lucie Upper Floridian Aquifer Supply Well F-19, Port St. Lucie, FL
- Orange County Oak Meadows WSF Well Houses, Orlando, FL
- South Bermuda WRF Upgrades and Expansion, Kissimmee, FL
- South Martin Regional Utility SMRU WWTP Filter and CCC Improvements, Hobe Sound, FL
- OIA – WS 110 South Terminal C, Phase 1 Lift Station #3, Orlando, FL
- Talleyrand Pump Station Gate Replacement, JEA, Jacksonville, FL
- Turnpike WRF Dewatering Facility, Leesburg, FL
- MacDill AFB Headworks and Grit Improvements, Tampa, FL
- City of Oviedo WWTP Expansion, City of Oviedo, FL
- EWRF Phase V, Orange County, FL
- Eustis Eastern WWTP Expansion, City of Eustis, FL
- Airport SWWTP Improvements, Hernando County, FL
- Lift Station No.1 Improvements, City of Orlando, FL
- Cape Canaveral WWTP Improvements, City of Cape Canaveral, FL
- Zephyrhills WWTF Upgrades, City of Zephyrhills, FL

Education

M.S. Civil Engineering, University of Central Florida, 2011
B.S. Civil Engineering, University of Central Florida, 2008

Registration

Professional Engineer: California, Texas, Louisiana, Florida and Georgia.

HALEY WARD
ENGINEERING | ENVIRONMENTAL | SURVEYING

Elizabeth A. Lindsay, PLS

Regional & Senior Project Manager

blindsay@haleyward.com | 772.286.5753

Elizabeth "Betsy" has 45 years of experience in land surveying and is a Licensed Professional Land Surveyor. Her expertise includes computations and coordination for survey related projects including land subdividing, platting, submerged land lease exhibits, environmental field surveys, bathymetric surveys, road right-of-way and construction surveys, boundary surveys, client liaison, and project management.

PROFESSIONAL HISTORY

2023 – Present
Haley Ward, Inc.
Regional Manager | Senior Project Manager
1998 - 2023
Betsy Lindsay, Inc.
President
1993 - 1998
Keith and Schnars, P.A.
Director of Survey

PROJECT EXPERIENCE

Pinehurst WTP 2 | Palm Beach County - In 2018, BLI was hired to survey the existing conditions and topographic survey of a portion of the Water Treatment Plant #2 on Pinehurst Drive to support the design of new wells. Betsy's professional experience supported the project from the beginning to the completion of the project. In 2019 our team supported additional topo design efforts for multiple components on this site. The cost for both surveys was $15,400 and delivered to the client.

PBC WTP 2 & 8 | Palm Beach County – Construction staking and Asbuilt survey the wellfield improvements for PBC Water Utilities WTP 2 with (5) well sites & WTP 8 with (4) sites. Betsy is supporting the crews to establish site control and stake pipes, fitting at each well, waterlines, electrical conduits along with asbuilts. We are currently still working on this project. The estimated cost will be $49,300.

CORE EXPERTISE:
Surveying
Project Management

EDUCATION:
A.A., Civil Engineering
Miami Dade Community College, Miami, Florida (1983)

REGISTRATIONS:
Professional Land Surveyor
State of Florida #4724

CERTIFICATIONS:
Certified 40 Hazmat/Health and Safety Training

AFFILIATIONS:
Florida Surveying Mapping Society (FSMS State Chapter)
Florida Surveying Mapping Society (IRC Chapter)
The Treasure Coast Chapter of the Florida Surveyors and Mappers Society (Past President, 1996 – 1997)
Adjunct Teaching Certification (2001 – 2003) Surveying at Technical Specialty Level at Indian River Community College

MARK ZRALLACK P.E.
SENIOR PROJECT ENGINEER

ARDAMAN & ASSOCIATES, INC., PORT ST. LUCIE AND WEST PALM BEACH

EDUCATION

B.S. Civil Engineering, University of Central Florida, 2011

REGISTRATION

Professional Engineer, Florida, No. 86546, 2019

EXPERIENCE

Mr. Zrallack has 14 years of experience as a civil engineer, 11 years with Ardaman, and assumed management of the Port St. Lucie and West Palm Beach Branch Office. In this capacity, he manages the day-to-day operations of the Geotechnical, Construction Materials Testing, and Environmental departments. He previously supervised the Construction Services Department. He has overseen the construction materials testing and inspection of many projects in Palm Beach County, along the Treasure Coast, including St. Lucie County, consisting of roadways, commercial and residential developments, stormwater drainage projects, and bridges. He supervised various construction quality assurance testing and inspection services for private and public sector clients.

Continuing Service Contracts for Geotechnical and Construction Engineering Services
Mr. Zrallack provides contract and project management oversight on numerous geotechnical and construction material testing projects for various municipalities under continuing contracts on a wide range of utility engineering, stormwater management, roadway, and infrastructure projects. Ardaman's services included subsurface exploration and geotechnical engineering analyses along with construction materials testing of soils, concrete, pavement materials (asphalt, base, and subgrade), and masonry units. Projects include utility services, roadways, stormwater systems, parking garages, and buildings.

- ***St. Lucie County***
- ***Indian River County***
- ***City of Palm Beach Gardens***
- ***Martin County***
- ***City of Port St. Lucie***
- ***City of West Palm Beach***

Geotechnical Engineering and Material Testing Services – Palm Beach, Martin, and Broward County, Florida
Mr. Zrallack is the Project Manager for various construction projects in Palm Beach, Martin, St. Lucie, Indian River, Okeechobee, and Broward Counties. He provides coordination for construction projects between the client, contractor, and field representatives. He is the quality control manager for the construction material testing department and is the engineer in charge of lab testing practices. He assists with roadway asphalt evaluations and provides recommendations for resurfacing. He is responsible for the accreditation and compliance of the lab with the Construction Materials Engineering Council (CMEC) program. He conducts Property Condition Assessments involving an extensive inspection of the structural, electrical, plumbing, HVAC, fire safety systems, and ADA compliance associated with the buildings.

New Fieldhouse Building, 117th Court North, Palm Beach Gardens. Florida
Mr. Zrallack served as a Project Geotechnical Engineer for the new fieldhouse building for the City of Palm Beach Gardens. Ardaman performed a subsurface exploration and geotechnical engineering evaluation for the project, consisting of shallow foundations in addition to providing pavement recommendations for surface parking.

Kravis Center Expansion, Okeechobee Boulevard, West Palm Beach, Florida
Mr. Zrallack served as a Project Geotechnical Engineer for the Kravis Center Expansion project. Ardaman performed a subsurface exploration and geotechnical engineering evaluation for the project, consisting of shallow and deep foundations, ground improvement programs, and driven sheet pile walls. Ardaman also provided construction materials testing and vibration monitoring services during the project's construction phase.

TAB 2: CONSTRUCTION TEAM QUALIFICATIONS AND PERSONNEL EXPERIENCE

FLORIDA DESIGN DRILLING, LLC

Florida Design Drilling (FDD) is a licensed water well and general contractor and leading provider of water well drilling and water resource construction services located in West Palm Beach, Florida specializing in solutions for industrial, irrigation, and commercial clients. With over 30 years of professional experience, our rigs and equipment are specifically engineered to meet the challenges of Florida's water drilling projects. Our large bonding capacity allows us to manage multiple and complex projects while delivering unparalleled performance to ensure optimal water resources and sustainability.

For over 100 years, the Ringdahl family of Florida Design Drilling has been trusted with some of America's most challenging municipal, industrial, irrigation, and commercial water drilling projects. As fourth generation inheritors of this legacy, Florida Design Drilling has embedded the values of hard work, excellence, and honesty into our culture to uphold the water drilling heritage of our family.

Florida Design Drilling offers smart drilling services to a variety of clients including municipal, industrial, irrigation, and commercial customers. We are committed to producing high-yield water wells that perform dependably throughout their lifespan.

We also specialize in services in general contracting, surface facilities, underground utilities, water treatment plants, wastewater treatment plants, and well rehabilitation. We are committed to finding affordable turnkey solutions regardless of a project's size or difficulty level.

FDD is a privately owned Florida company, and our current gross annual volume of work is approximately $37 million dollars per year. The officers of the company are as follows: Dan Ringdahl (CEO), Noah Ringdahl (President), Paula Williams (Controller), Jeanine Alfieri (Secretary), Michael Black (Vice President), Brandon Holst (Vice President – Wells), and Jeffrey Holst (Senior Vice President – General Construction).

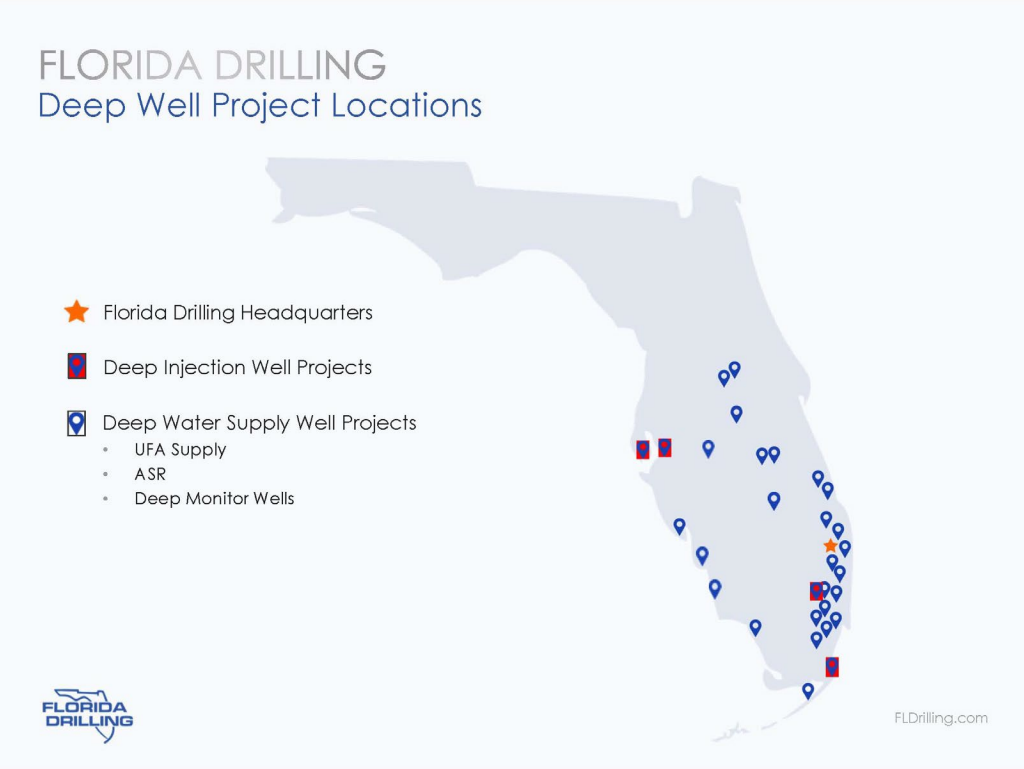
FLORIDAN AQUIFER WELL PROJECT EXPERIENCE

FDD is an industry leader with extensive deep well construction experience. We have constructed over 20 Upper Floridan Aquifer Water Supply Wells and over 50 Deep Water Wells Constructed into the Upper Floridan Aquifer, or deeper. FDD is the only water well contractor in Florida that actively performs construction of all types of deep water wells: Upper Floridan Aquifer (UFA) Supply, Aquifer Storage and Recovery (ASR), Lower Floridan Aquifer (LFA) Test Wells, Underground Injection Control (UIC) Deep Injection Wells, and all related Monitoring Wells.

Additionally, FDD is the only water well Contractor in Florida that has completed full Design-Build water well services for both Upper Floridan Aquifer Water Supply and Deep Injection Wells.

FDD is fully equipped to complete this important project for the City of Port St. Lucie. Our deep well drilling rigs are designed and built in house with assistance from specialty subconsultants, subcontractors, and professional engineers. We also own and operate all equipment necessary for deep well construction and testing including not only the drilling rigs, but transformers, generators, all tooling, cementing, logging, and trucking equipment.

FDD has successfully completed deep well projects for Florida Power and Light, Polk Regional Waer Cooperative, City of St. Petersburg, TECO, Seacoast Utility Authority, South Florida Water Management District, North Springs Improvement District, the City of St. Cloud, and TOHO water authority. With over 100 employees, we can provide turnkey water drilling and construction services that fully accommodate the needs of the City of Port St. Lucie.



RESUMES

Resumes for the proposed construction team for this project are provided at the end of this section.

LICENSES AND CERTIFICATIONS

STATE OF FLORIDA
WATER WELL CONTRACTOR LICENSE
Issued to
Noah Ringdahl

License No. 11349 Expires 7/31/2025

DISTRICT CERTIFICATION OFFICER

STATE OF FLORIDA
WATER WELL CONTRACTOR LICENSE
Issued to
Daniel Ringdahl

License No. 11148 Expires 7/31/2025

DISTRICT CERTIFICATION OFFICER

The State of Florida
Has Determined That

Brandon Holst

Is Qualified As A
Water Well Contractor
Pursuant To Chapter 373, Florida Statutes
In the State of Florida
And Hereby Issues License Number
11415

Issued By
South Florida Water Management District

This 11th Day of September 2024

Dalton McNeal
Water Well Contractor Licensing, Water Use

Form 0186 09/2012

Ron DeSantis, Governor

Melanie S. Griffin, Secretary

Florida dbpr

STATE OF FLORIDA
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION

CONSTRUCTION INDUSTRY LICENSING BOARD

THE GENERAL CONTRACTOR HEREIN IS CERTIFIED UNDER THE
PROVISIONS OF CHAPTER 489, FLORIDA STATUTES

HOLST, JEFFREY TURNER
FLORIDA DESIGN DRILLING LLC
7733 HOOPER RD
WEST PALM BEACH FL 33411

LICENSE NUMBER: CGC1522104
EXPIRATION DATE: AUGUST 31, 2026

Always verify licenses online at MyFloridaLicense.com

ISSUED: 07/09/2024

Do not alter this document in any form.

This is your license. It is unlawful for anyone other than the licensee to use this document.

SUBCONTRACTORS

We have assembled a team of local, responsive, and cost-effective firms and subcontractors that we believe can provide outstanding engineering and technical support and construction services to the City of Port St. Lucie. Our team was selected with the specific needs of the City in mind. Most of the specialty companies on our team have worked successfully with FDD and/or for the City of Port St. Lucie in the recent past and look forward to the opportunity to continue to work with FDD in providing continued support to the City of Port St. Lucie. A brief description of the role and qualifications of key team members is summarized in the following pages.

Public Relations

The Merchant Strategy, Inc. provides the essential skills, relationships, and experience to help clients communicate effectively, build support, and cut through red tape. The Merchant Strategy, Inc. (TMS) is a woman-owned small business owned and operated by the company president, Sharon Merchant, a former State Representative, and lifelong resident of Palm Beach County.

THE MERCHANT STRATEGY

Their team of professionals offers extensive expertise in public involvement, government/community relations, crisis management, social media, and media relations. The team's client list combines services to city and county governments, non-profit agencies, industry leaders in transportation, architecture, engineering, construction, health care, education, environmental services, and utilities.

TMS's Public Involvement Team has been critical to the success of many public sector projects over the firm's 20-year history. Public Involvement is called for to minimize disruptions on public projects such as adding new lanes or upgrading underground utilities in neighborhoods. Sharon Merchant acts as Principal in Charge and provides QA/QC. Cheryl Scott, their COO, leads these efforts, provides information, carefully listens, develops websites, provides meeting logistics, and documents all project events. Justin Gonzalez, TMS's Marketing/Public Involvement Specialist, provides timely social media maintenance and updates, graphics, and attends meetings. Together, they create and distribute collateral materials, stakeholder information, set up and monitor project hotlines to provide immediate information, and manage public information dissemination/distribution logistics. The City will not find a more engaged, effective, and efficient Public Involvement Team.

Horizontal Directional Drillers

K3 Directional Drilling, Inc. established in 2015, specializes in providing directional boring services. With extensive industry experience, they cater to the underground construction needs of both the public and private sectors. K3's fleet comprises of seven drills, boasting pullback capacities of up to 220,000 lbs., and access to pullback capacities reaching 440,000 lbs. They hold a General Contractor license in Florida and possess certification in Pipe Fusing, regularly engaging with HDPE projects. At K3, they prioritize the foundation of success through unwavering commitments. This includes a

K3 DIRECTIONAL DRILLING INC.
772.600.7118
WWW.K3Directional.Com

dedication to industry safety, fostering the career and personal growth of their employees, providing exceptional service to customers, and upholding high standards of values for the community and the environment.

DBE Management, LLC d/b/a DBE Utility Services (DBE) is a Loxahatchee, Florida-based specialty contractor that has been performing horizontal directional drilling (HDD) services since 2004. They serve clients throughout the State of Florida from the panhandle to the Keys, and into other southeastern States; both as a prime and drill sub-contractor. DBE is a full service, turn-key and design-build partner of choice. From their in-house engineering staff to award-winning partnerships with outside firms, DBE can hit the ground running saving valuable time & money. DBE's expertise lies in subaqueous pipeline construction where they have completed hundreds of projects. Of their owned drill fleet, six (6) of fifteen (15) rigs are regularly deployed to work below various water bodies at depths of up to 100 feet or deeper, up to 72" in diameter, and up to 5,300 linear feet in distance. Their mechanical capabilities range from 10,000 lbs. to 1.1 million lbs. of drill thrust and pullback force; with up to 100,000 ft*lbs. of rotary torque.

Centerline Directional Drilling Service, Inc. (CDDS, Inc.) started operation in 1999, and is an Underground Utility Contractor that specializes in Horizontal Directional Drilling for the past 24 years. Centerline Directional Drilling Service, Inc. specializes in the installation of underground and underwater conduits for electric, fiber optic, gas, sewer, water, etc. CDDS, Inc. is equipped with Rigs from 36,000 to 660,000 lbs. pull back. Guided by CDDS, Inc. accomplished CEO & President, Lauro Acevedo has engaged his 50 employees to become not only a specialized team, but visionary professional leaders that use their knowledge and good worth ethic to meet if not excel in completing diverse projects. Their client's satisfaction is what they strive to accomplish no matter the size of the project.

Electricians

Energy Efficient Electric, Inc. (EEE) is a privately owned electrical contractor based in West Palm Beach, Florida serving Palm Beach, St. Lucie, Broward, Indian River, and Martin counties. EEE specializes in industrial water/wastewater applications and high-end residential installations. Incorporated in 1981, EEE currently employs 25 people. Their dedicated personnel consists of seventeen Journeyman electricians (three of which hold a current master electrician license), competent management, and several electrical apprentices learning the trade. On average, they complete more than five million dollars in electrical construction projects annually. Since inception, the firm has continually been recognized as one who performs quality work in a timely manner, and in accordance with all contract documents. EEE has extensive local water and wastewater experience including design-build projects, low and medium voltage systems, hazardous location installations, automation control system wiring and terminations, and electrical installations for production wells, lift stations and treatment plants.

Paragon Electric of Vero, Inc. is an electrical contractor specializing in Water/ Wastewater Treatment electrical work. Paragon has extensive experience in Design Build projects as well as Continuing Services Contracts. Paragon has completed numerous water/wastewater treatment plants throughout Florida. These include new plants, expansions, and rehabilitations. These projects have also included new generators, treatment plant upgrades, production wells, pump stations, new main services, motor control centers and electrical rooms.

Gilmore Electric Co. Inc. has been in business since 1941. It is a 4th generation family owned SBE certified business that has been successfully completing industrial projects for municipalities across the state of Florida for over 35 years. These projects consist of water treatment plants, wastewater treatment plants, raw water wells, deep injection wells, and storm water pump stations. Their experienced staff, including four Florida state licensed Master Electricians, and numerous licensed journeyman electricians have the knowledge and experience needed to safely bring projects in on time and budget. Gilmore Electric's motto is "where quality and integrity still exist", and they proudly stand behind it.

Hydrogeology

McNabb-Miller Hydrogeologic Consulting, Inc. (MMHC), formerly known as McNabb Hydrogeologic Consulting, Inc. is a seven-person, professional geologic/hydrogeologic consulting firm, located approximately 35 miles south of Port St. Lucie in Jupiter Florida, that specializes in providing efficient consulting services for wells completed in the Floridan Aquifer System. As a small firm, every client and project are extremely important. MMHC offers a responsive, efficient, cost-effective and schedule-driven approach to client services. MMHC has a proven track record of successfully handling large projects. Over the past five years, we have designed, permitted, and provided construction management (CM) services for well construction projects totaling more than $115 million and consulting fees that average $1,656,000 per year.

Civil/Mechanical Engineering

Holtz Consulting Engineers, Inc. (HCE) was founded in March 2006 in Jupiter, Florida to assist utilities, cities, counties, and special districts such as the City of Port St. Lucie with high-quality, responsive, and efficient engineering services on facility and utility improvement projects. They have demonstrated their commitment to providing excellence and value on numerous successful projects over the past eighteen years. HCE is currently successfully providing engineering services to the City of Port St. Lucie and several other local entities and have the expertise and experience necessary to accomplish all aspects of the civil and mechanical engineering components of this project.

Electrical Engineering

C&W Engineering, Inc. was established in 1992 and provides Electrical and I&C engineering and construction services specializing in municipal facilities. C&W is a certified local Small Business Enterprise (SBE) who is centrally located in West Palm Beach, FL conveniently serving clients (typically civil engineering firms, municipalities and private industry) throughout southeast, southwest and central Florida. C&W's areas of expertise include:

- WTP/WWTP
- Photometric Analysis
- Pump Stations
- I&C, SCADA and Telemetry Systems
- Roadway and Parking Lot Lighting
- Power Distribution

C&W has provided electrical and I&C subconsultant services to our clients over the past 30 years on numerous wells and other large projects.

Instrumentation and Control (I&C)

C.C. Control Corp is a Systems Integrator/Supplier of Control Panels, Instrument Panels, Control and Instrumentation Systems, PLC Systems and SCADA (Supervisory Control and Data Acquisition) Systems for all types of process control. Founded in 1992, C.C. Control Corp has been in business for over 29 years with extensive experience in the Water, Wastewater and Stormwater venues serving primarily South and Central Florida. Their entire operation is housed in a 13,200 sq./ft facility constructed in 2010. The facility is equipped with state-of-the-art computer systems, AutoCad and ePlan stations, manufacturing tools, vehicles and other miscellaneous equipment required to fabricate and support the operations. C.C. Control Corp has been a UL 508A and 698A certified shop since 1992. With over 50 years of combined project management experience, C.C. Control Corporation understands that solutions must be customized to fit the client's environment. They work with their client from the beginning to define their requirements, which are the foundation for making the right technological choices. From there C.C. Control Corp will help develop the strategies to implement a system that meets all requirements and exceeds expectations.

Structural Engineering

Wekiva Engineering, LLC is a consulting engineering firm that provides structural engineering services for projects including water and wastewater facilities. HCE has a working relationship with Wekiva, having worked on various projects together for local utilities such as the City of Port St. Lucie, Martin County Utilities and South Martin Regional Utility. In addition to providing structural engineering services, Wekiva is experienced with providing value engineering ideas and solutions and will help ensure the City of Port St. Lucie receives the most cost-effective project design.

Surveying

Betsy Lindsay, Inc. (recently acquired by Haley Ward, Inc.) is a Surveying and Mapping Firm located in Stuart, Florida. The firm is deeply committed to supplying quality surveying services with the same professional staff that you have worked with for the last 25 years and at the present time Haley Ward employs 14 employees, with 4 survey crews. Elizabeth A. Lindsay (Betsy), PLS is the lead Senior Project Surveyor for the Stuart office and has over 45 + years of experience in the Surveying and Mapping Business. Mrs. Lindsay has performed Boundary, Topographic, Quantity, Route, Bathymetric, R/W, Control Survey and various types of Specific Purpose Surveys. Betsy is well versed in AutoCAD and Softdesk products for the efficient accurate production of survey field data into a quality final survey product. Past experience includes:

- Right of way and topographic surveys for the basis of engineering designs of water, sewer, paving and drainage for numerous projects throughout Palm Beach, Martin, Hendry, Collier, St. Lucie Counties.
- Boundary and Topographic Surveys including the location of wetlands and Mean High water lines to be utilized in engineering designs, subdivision design and preparation of final plats.
- Location of environmentally sensitive lands utilizing traditional survey methods and GPS with RTK.
- Boundary Surveys, Topographic surveys, Title review, legal description preparation and As-Built surveys in support of the restoration of the everglades.
- Establishment of a Geodic baseline using conventional survey methods and development of digital terrain models covering up to 26 miles.
- Data collection and coordination with underground locators for the preparation of detailed Topographical surveys.
- Survey for design of major and minor roadways to Department of Transportation standards.

Geotechnical Engineering

Ardaman and Associates, Inc. is a professional engineering corporation founded in 1959 by Dr. M.E. Ardaman and has continually provided engineering services in the practice of engineering. The company was founded in Orlando and has expanded to meet the needs of our client community. Today, Ardaman is one of Florida's largest geotechnical, materials testing, environmental, and geoscience consulting firms. Ardaman employs over 400 professional engineers, scientists, technicians, drilling personnel, technical assistants, and support staff. Over our history, we have worked on more than 150,000 projects throughout the State, the U.S., and worldwide. This vast list of project experience includes services for virtually every type of public and private client associated with development and construction.

Jeffrey Turner Holst

Senior Vice President - Construction

Professional summary

Mr. Holst is a construction industry professional with over 18 years of experience as a project manager, estimator, and executive vice president. His areas of expertise include water & wastewater treatment facilities, storage tanks, production wells, deep injection wells, pipeline utilities, pump stations, chemical storage and feed systems, and pump, administration, and electrical buildings. Mr. Holst's responsibilities include management of all aspects of construction for municipal water and wastewater facility projects, contract/change order negotiations, cost estimating, subcontract management, design/value engineering, cost controls, and CPM scheduling. Mr. Holst deals in an honest manner with clients, consultants, suppliers, and subcontractors to encourage a trusting, team atmosphere. He focuses on the overall project, carefully identifying and emphasizing the important details to on-site management and subcontractors, to ensure a high-quality construction product that is completed on schedule.

Education

Bachelor of Science, Mechanical Engineering, University of Florida, Gainesville, FL, 2006

Certifications & Training

State of Florida **Certified General Contractor CGC1522104**
30 Credit Hours of **OSHA Construction Industry Safety and Health Standards Training**
Project Management Certification in **Primavera P6**

Employment History

Senior Vice President, Florida Design Drilling LLC (2019-present)
Vice President, Florida Design Drilling Corp. (2015-2019)
Project Manager, Florida Design Drilling Corp. (2013-2015)
Construction Manager, Mathews Consulting, Inc. (2013)
Project Manager, Florida Design Contractors, Inc. (2012-2013)
Project Engineer, TA Loving Co. (2011-2012)
Project Manager, Florida Design Contractors, Inc. (2010-2011)
Project Engineer, Florida Design Contractors, Inc. (2006-2010)
Assistant Project Manager Intern, Florida Design Contractors, Inc. (2006)

DANIEL C. RINGDAHL
7733 Hooper Road
West Palm Beach, FL 33411
561-324-3885

Qualifications:

I grew up in a family well drilling business. My experience includes extensive drilling throughout Florida, including all types of public water supply wells from Surficial to Floridan aquifer, deep injection wells, deep supply wells, ASR and many types of monitor wells. I am well versed in all types of hydro geological testing: aquifer tests, single and dual packer testing, coring, mechanical integrity testing and well acidization. I am experienced in the many types of drilling procedures including mud rotary, cable tool, reverse air, straight air, straight water and biodegradable fluids.

Licenses:

Florida State Water Well Contractors License #11148

Experience:

January 2005 to Present
Florida Design Drilling LLC
President and Majority stockholder

October 2000 to March 2004
Diversified Drilling Corporation (DDC)

May 1992 to October 2000

1988 to May 1992
Southwest Water Wells, Inc., Fort Myers, Florida.

1986 to 1988
Dale Carnegie

Spring 1979 to Fall 1986
Owned, operated and managed the family water well drilling business in eastern North Dakota until selling the business in June of 1986. I worked with my father in the business from an early age and took over the business when my father retired. I was involved initial customer contact, bidding, drilling of wells, sale of wells, pumps, and related accessories for domestic, farm, and commercial water systems. Extensive experience in the installation of screen wells, well development and testing. During the same period of time, I operated and managed the family farm of 640 acres.

Education:

North Dakota State University - 1979
Bachelor of Science Degree in Agronomy

Noah D. Ringdahl
7733 Hooper Road
West Palm Beach, FL 33411
561-909-7295

Licenses:

Florida State Water Well Contractors License #11349

Experience:

September 2009 to Present

Florida Design Drilling LLC

President and Stockholder Leading an first class organization of 95 employees
Project Management – Supervise and guide project management team
Supervise and Lead a team of 5 PM's
Estimating – Lead Estimating team
Supervise and Lead a team of 3 estimators
Drilling and Construction Technical Lead
Supervise and Lead a team of 4 Drilling and Construction Superintendants
Engineering Technical Lead
Supervise and Lead a team of 4 Engineers and Technicians

March 2005 to June 2008

CH2M Hill Inc.

Process, Instrumentation, and Controls Engineer
Process Engineering Design of Water Plants
Simulation, design, and implementation of Process Controls
Luggage Point AWTP, Brisbane Australia
Gippsland Water Factory, Melbourne Australia
LVVWD, Las Vegas, Nevada
LADWP, Los Angeles, California
Bonita Springs Utilities, Bonita Springs, Florida
Toho Water Authority, Kissimmee, Florida
Seminole County Utilities, Sanford, Florida

February 2002 to June 2004

Self Employed – (During full time college studies)

High performance vehicle tuning, wire harness fabrication, and engine swaps
Property management – successfully purchased and managed multibedroom residence to provide myself with free room during college years by renting rooms to other college students.

1996 to 2000

Well Water Systems Inc.

Project Assistant
Pump Testing
Well Rehabilitation
Systems troubleshooting and Programming

Education:

University of Central Florida - 2005
Bachelor of Science in Mechanical Engineering
1st place: College of Engineering Design Competition – Fall 2002
1st place: College of Engineering Design Competition – Spring 2003

MICHAEL BLACK
VICE PRESIDENT
FLORIDA DESIGN DRILLING LLC
(561) 371-9241 MOBILE
MIKE@FLDRILLING.COM

Twenty-four years of experience in the field of hydrogeologic consulting and water well contractor services. Majority of experience is involved with management of deep injection wells (DIW) and water supply wells construction and testing. Mr. Black has performed design, permitting and project management for drilling and testing of numerous DIWs, Aquifer Storage and Recovery wells (ASR), Floridan aquifer water supply wells and Surficial and Biscayne aquifer water supply wells. Also performed design and management of rehabilitation efforts for all wells listed above.

Relevant Upper Floridan Aquifer Water Supply Well Experience

- City of Miramar – Upper Floridan Aquifer Supply Wells (2 total UFA wells)
- City of Hollywood – Upper Floridan Aquifer Supply Wells (4 total UFA wells)
- Everglades Club – Upper Floridan Aquifer Supply
- La Gorce Country Club – Upper Floridan Aquifer Supply
- Seminole Tribe of Florida (STOF) – Upper Floridan Aquifer Supply Well
- Seacoast Utility Authority – Upper Floridan Aquifer Supply Well

Deep Injection Well Clients and Project Experience

- Florida Power and Light – Turkey Point Injection Wells DIW-2 and DIW-3
- TECO Big Bend – IW-1 and IW-2
- North Springs Improvement District IW-1
- City of St. Pete – IW-5
- City of St. Pete – IW-6 and MW-B-11
- City of Hollywood WTP – Deep Injection Well IW-1 and Dual-Zone Monitor Well DZMW-1
- Charlotte County Utilities – Deep Injection Well IW-2
- Florida Power and Light – West County Energy Center Deep Exploratory Well EW-1
- City of Key West – Deep Injection Well IW-2
- Martin County Utilities – Tropical Farms Deep Injection Well System

Employment History

Florida Design Drilling LLC 2016 – 2021 and 2022 – Present
All Webbs Enterprises, Inc. - 2022
Cardno, Inc. 2014 – 2016
AMPS, Inc. 2013 - 2014
Malcolm Pirnie, Inc. (Arcadis) 2007 to 2013
LBFH, Inc. (Boyle) 2003 to 2007
Blasland, Bouck and Lee, Inc. (Arcadis) 2002 to 2003
Gerhardt M. Witt & Associates, Inc 2001 to 2002

Education

Bachelor's Geology (2000) – Florida Atlantic University

BRANDON HOLST
CELL: (561) 568-1231
BRANDON@FLDRILLING.COM

Eight years of experience in the field of water well contractor services. Majority of experience is involved with management of deep injection well, ASR well, and water supply well construction and testing.

Mr. Holst has performed permitting and construction management for drilling and testing of numerous deep injection wells (DIW), Aquifer Storage and Recover (ASR wells), Floridan aquifer reverse-osmosis (RO) water supply wells and Surficial and Biscayne aquifer water supply wells. He has also performed management of rehabilitation efforts for deep injection wells, monitor wells, and numerous Floridan aquifer, Surficial aquifer, and Biscayne aquifer production wells.

RELAVENT CLIENTS AND PROJECT EXPERIENCE

Florida Power and Light (FPL) – Miami-Dade Clean Water Recovery Center Project Injection Wells DIW-2 and DIW-3

North Springs Improvement District (NSID) – Deep Injection Well IW-1 and Dual-Zone Monitor Well DZMW-1

Tampa Electric Company (TECO) – Big Bend Deep Injection Well IW-1, IW-2 and Dual-Zone Monitor Well DZMW-1 and DZMW-2

South Florida Water Management District (SFWMD) LOWRP ASR – LOWRP ASR Test Wells C38N/C38S Project

Water Supply Well and General Construction Experience

Miami Dade Floridan Aquifer Monitoring Wells FA-1 and FA-4

Town of Jupiter Surficial Aquifer Well Replacement Program (Wells 6-11)

Martin County Floridan Wells TFRO-6 and TFRO-7

License

Florida Water Well Contractor #11415

Education

BS Mechanical Engineering (2020) – Florida Atlantic University

Employment History

Florida Design Drilling LLC 2016 - Present

KENNETH WESLEY LAWSON, JR.

FLORIDA DRILLING

(501) 304-0239

WES@FLDRILLING.COM

DRILLING CONSULTANT/WELLSITE SUPERVISOR

Quality motivated professional with 20+ years of experience in the oil and gas, and water well drilling industry; 10+ years at the Rig Manager and Driller positions. Results oriented with proven record of accomplishments and consistent contributions that increase production and profit driven operations. Proactive leader: expertise to troubleshoot, initiate change, and implement re-engineering/quality improvement processes. While maintaining a safe, positive and productive work environment.

RELAVENT PROJECT EXPERIENCE (SUPERINTENDENT)

Florida Power & Light Co. (FPL – Turkey Point Facility) – DIW-2 / DIW-3 and associated Dual Zone Monitor Well DZMW-2 (UIC Permitted Class I DIW's) Wells Completed 12/2024
Construction and testing of two UIC permitted Class I DIW's and associated dual zone monitor well. Total Depth – 3,200', Final Casing 24" to 2,850' with 18" FRP Liner and Fluid filled annulus.

TECO (Tampa Electric Company – Bid Bend Facility) – IW-1 / IW-2 and associated Dual Zone Monitor Wells DZMW-1 / DZMW-2 (UIC Permitted Class V Exploratory DIW's) On-Going
Construction and testing of two UIC permitted Class V Exploratory DIW's and associated dual zone monitor wells IW-1 and IW-2: Total Depth – 3,300', Final Casing 20" to 2,400'

North Springs Improvement District – IW-1 and DZMW-1 (UIC Permitted Class I DIW) IW-1 Complete
Construction and testing of one UIC permitted Class I DIW and associated dual zone monitor well IW-1: Total Depth – 3,501', Final Casing 16" to 3,065'

EMPLOYMENT AND EXPERIENCE

Florida Design Drilling Corporation **2020 - Present**

Patterson Drilling UTI **6/01/2017 – 12/7/2020**
Rig Manager

Nomac Drilling **9/15/2008 – 6/01/2017**
Rig Manager, Driller, Derrick Man, Motors, Floor Hand

Mike Rogers Drilling **9/1997 – 9/15/2008**
Driller, Derrick Man, Floor Hand

BRUCE BALMER
FLORIDA DRILLING
(561) 315-2459 MOBILE
BRUCE@FLDRILLING.COM

DEEP WELL DRILLING SUPERINTENDENT

Thirty-three years of experience as a water well drilling contractor. Majority of experience as lead drilling operations superintendent providing field management during construction and testing of numerous deep water supply wells and UIC permitted wells. Employed by Florida Design Drilling LLC since 2009.

RELAVENT PROJECT EXPERIENCE (SUPERINTENDENT)

Seacoast Utility Authority (SUA) – Well F6
Construction and testing of one upper Floridan aquifer supply well F6: Total Depth – 1,600', Final Casing 14" to 1,250'

North Springs Improvement District (NSID) – Well F1
Construction and testing of one upper Floridan aquifer supply well F1: Total Depth – 1,200', Final Casing 16" to 965'

Seminole Tribe of Florida (STOF) – Well 3
Construction and testing of one upper Floridan aquifer supply well F3: Total Depth – 1,160', Final Casing 16"x8" to 680'

Polk County Utilities – Polk County Central Production Wells TPW-1 and TPW-2
Construction and testing of one dual-zone deep production well (TPW-1) and one single zone production well (TPW-2) TPW-1: Total Depth – 3,120' (Back plugged to 2,500' TD / 24" Casing to 1,250' / 12" Casing to 2,100'

TECO (Tampa Electric Company – Bid Bend Facility) – IW-1 / IW-2 and associated Dual Zone Monitor Wells DZMW-1 / DZMW-2 (UIC Permitted Class V Exploratory DIW's) On-Going
Construction and testing of two UIC permitted Class V Exploratory DIW's and associated dual zone monitor wells IW-1 and IW-2: Total Depth – 3,300', Final Casing 20" to 2,400'

EMPLOYMENT AND EXPERIENCE

Florida Design Drilling Corporation	**2009 – Present**
Wells and Water Systems	**2005 – 2009**
Diversified Drilling	**2000 – 2005**
Wells and Water Systems	**1990 - 2000**

BRAD BROOKS
FLORIDA DRILLING
(318) 316-2048 MOBILE
BRAD@FLDRILLING.COM

Over 20 years of experience in the water and oil/gas drilling industries. The majority of Mr. Brooks' experience as lead drilling operations superintendent providing field management during construction and testing of numerous deep water wells and oil/gas wells.

RELAVENT PROJECT EXPERIENCE (SUPERINTENDENT)

Florida Design Drilling Corporation **2019 - Present**

TECO (Tampa Electric Company – Bid Bend Facility) – IW-1 / IW-2 and associated Dual Zone Monitor Wells DZMW-1 / DZMW-2 (UIC Permitted Class V Exploratory DIW's) On-Going
Contact – Mike Weatherby, P.G. Hydrogeo Consulting ,LLC (813) 340-3887
Construction and testing of two UIC permitted Class V Exploratory DIW's and associated dual zone monitor wells
IW-1 and IW-2: Total Depth – 3,300', Final Casing 20" to 2,400'

North Springs Improvement District – IW-1 and DZMW-1 (UIC Permitted Class I DIW) IW-1 Complete
Contact – David McNabb, P.G. McNabb Hydrogeological (561) 891-0763
Construction and testing of one UIC permitted Class I DIW and associated dual zone monitor well
IW-1: Total Depth – 3,501', Final Casing 16" to 3,065'

PRIOR EMPLOYMENT AND EXPERIENCE

XTO Energy – Drilling Consultant **2017 - 2019**

Nomac Drilling/Patterson-UTI Drilling – Rig Manager/Drilling Superintendent **2009 - 2017**

Golden West Drilling – Rig Manager/Driller **2008 - 2009**

H & P Drilling/Cactus Drilling/ Greywolf Drilling – Driller/Floorhand **1996 - 2008**

Linwood Lee
Construction Manager
Holtz Consulting Engineers, Inc.

Linwood Lee has successfully managed construction over $100 million of water and wastewater projects. At Holtz Consulting Engineers, he serves in the role of Construction Manager and is primarily responsible for overseeing the construction of a project from start to finish and helps to ensure completion of the project as specified, on time, and within budget. Linwood is very familiar with utility construction projects and proper means and methods of construction and is a valuable asset to Holtz Consulting Engineers and our clients.

Project Related Experience

Hood Rd. 36-inch Raw Water Main – Seacoast Utility Authority – HCE provided survey, design, permitting, bidding and construction engineering services for 3,200 linear feet of 36-inch raw water main located in easements and right-of-ways along Hood Road in Palm Beach Gardens, Florida. Over 3,600 linear feet of fiber optic conduit was also designed and constructed as part of the project. The project included PVC, HDPE and ductile iron pipe installed both via open-cut and directional drill methods.

Surficial Aquifer Production Well Replacement and Rehabilitation Program – Seacoast Utility Authority-HCE assisted Seacoast Utility Authority with a phased, multi-year program of replacing aged surficial aquifer production wells. HCE has assisted with the replacement of 33 wells in multiple phases. Each phase included separate design documents, permits from the Palm Beach County Health Department and the South Florida Water Management District, and bidding and construction assistance services. The wells were constructed by multiple contractors. The replacement wells are located in the same easements or on the same sites as the original wells. These projects included hydraulic modeling of the raw water system, screened and open-hole wells, new well heads and raw water mains, and associated electrical and instrumentation.

Tropical Farms Wastewater Treatment Plant (WWTP) Reclaimed Water Storage Tank & Pumping and Return Activated Sludge Pumping Improvements – Martin County Utilities - HCE provided design, permitting, and construction administrative services for a two-phase reclaimed water storage and pumping improvements project at the Tropical Farms WWTP. Phase I consisted of a new one million gallon pre-stressed concrete reclaimed water storage tank including vibro-flotation compaction beneath the tank, bypass piping, and piping relocations. Phase II included a new reclaimed water distribution pump station including 18-inch through 36-inch suction and discharge piping and three vertical turbine pumps. An effluent transfer pump station with three new vertical turbine pumps located at the chlorine contact basin was also included. Phase II also consisted of replacing two existing Return Activated Sludge (RAS) pumps with new dry-pit mounted chopper-style pumps.

Water Distribution Improvements - City of Stuart
Project included design, permitting, and Florida Department of Environmental Protection (FDEP) State Revolving Fund funding assistance, of approximately 59,000 linear feet of 6-inch through 12-inch water mains in existing residential neighborhoods and commercial developments for the City of Stuart. The new mains replaced inadequately sized mains, looped dead ends, old mains, and increase fire protection for the City. The mains are located in City, County, and Florida Department of Transportation right-of-ways.

Ground Storage Tank Nos. 5 and 7 at the Hood Road Water Treatment Plant – Seacoast Utility Authority - Project included survey, design, permitting, bidding and construction administration services for the addition of two new 2-MG prestressed-concrete ground storage tanks at the Hood Road Water Treatment plant. This project included associated water main piping extensions, valves, and fittings, as well as electrical, instrumentation, and site preparation necessary for the installation of GST Nos. 5 and 7. The project also included various yard piping improvements in the vicinity of the new GST.

Professional History

2016-Present Holtz Consulting Engineers, Inc.,
2006- 2016 TLC Diversified, Inc.
2002-2006 Western Summit Constructors
1997-2002 The Industrial Company

Education

High School, Morgan City, LA.
Construction Management, WSU, WA.

Rick Martens
Construction Manager
Holtz Consulting Engineers, Inc.

Rick Martens brings significant experience with large water and wastewater projects, with further knowledge in geotechnical exploration/foundation design, construction materials testing and proficiency with seismic monitoring. He is a highly organized leader with strong technical experience and communication skills. Rick has over eight years of experience managing over $200 million dollars of water and wastewater projects and is the newest HCE team member to HCE. We are extremely excited for the value Rick will bring to our projects and our clients.

Project Related Experience

WTP Reverse Osmosis Facility – City of Stuart - The project consists of constructing a 1.5 MGD reverse osmosis (RO) water treatment plant expansion of the City of Stuart's existing lime softening water treatment facility; construction of a new RO process and control building to house up to 3.0 MGD of treatment capacity; Floridan wellhead for existing drilled onsite Floridan aquifer water supply well; pretreatment equipment; chemical systems; filter clearwell modifications, transfer pump replacement; new pole barn; valves; piping; instrumentation; electrical and SCADA system equipment; and all accessory items to provide a complete operating system.

Hamlin Groves Water Reclamation Facility & Offsite Pump Station CMAR – City of Winter Garden -This new 5.0 MGD facility includes all systems such as a preliminary treatment structure with screening, grit and odor control; activated sludge treatment train with BNR process and diffused aeration; process air blower system and building; secondary clarifiers and clarifier splitter box; plant pump stations; tertiary filters; chlorine contact tank; chemical feed and storage systems; sludge holding tanks, gravity belt thickener equipment, a 5 million gallon ground storage tank and a variety of pumps (NRCY, Scum, RAS, WAS, VT Transfer, VT HSP). This project involved 3,600 linear feet of 36" diameter off-site force main and an off-site, $8 million master pump station complete with a CIP wet well, electrical building and odor control system.

Hollywood Wastewater Treatment Plant Design-Build – Seminole Tribe of Florida-This project was a new 3 MGD wastewater treatment facility that consisted of a 4,000 SF operations building with a state-of-the-art SCADA room, laboratory, offices, restrooms, garage and electrical room. The new plant features a headworks structure that is 40' tall with rotary bar screens, grit removal equipment and odor control system. At the main treatment facility is a four basin sequencing batch reactor (SBR) tank with each basin capable of 750,000 gallons of treatment capacity. The SBR utilizes a 316SS jet header and diffuser system with reversible jet motive pumps, WAS pumps and blowers. The SBR decanted water travels to an effluent pump station which houses five submersible pumps that send the water through a 24" line which is 1500 LS of C900 and 3600 LF of 24" HDPE. The 24" HDPE was installed by directional drilling to a depth of 40' deep underneath the Florida turnpike. The effluent water travels into an injection well pump station (IWPS), which houses five additional horizontal pumps and delivers the water into two deep injection wells.

Weston Water Plant – City of Sunrise - Rehab and install of new vertical turbine pumps and clear well a structure. Installation of new backup power generator. Installation of new Ion exchange structure and units, new and rehab to INC and communications networks. Install of new chemical dosing buildings and pump skids, with bulk chemical storage and transfer stations. Project also included rehab and coatings throughout the project, and remediation of an existing 1-million-gallon GST.

Wastewater Plant Rehabilitation CMAR – Village of Wellington - The project involved the rehabilitation of an existing operations buildings, the construction of a new two-story operation building with offices, reroute and bypass installation of 24'' influent RAW piping into the headworks structure and the construction of a completely new aerobic digestor. All new underground ductile piping was placed to tie into the plant's existing structures and aerobic digestors.

Professional History

2025-Present Holtz Consulting Engineers, Inc.,
2022- 2025 PC Construction, Inc.
2019-2022 Wharton Smith, Inc.
2017-2019 GFA International, Inc.

Education

BS, Environmental Science and Policy, Florida State University

Jhonatan Delgado Padilla

McNabb-Miller Hydrogeologic Consulting, Inc.

Project Related Experience

McNabb-Miller Hydrogeologic Consulting, Inc. (2024) - Construction Site Engineer

Ft. Lauderdale Prospect Lake WTP (Ongoing) - Providing technical field oversight during construction and testing of two (2) non-hazardous Class I Injection wells (IW-1 and IW-2) and one (1) associated monitor well (MW-1) for the Ft. Lauderdale Prospect Lake WTP.

FPL Turkey Point CWRC Deep Injection Well System – Providing construction oversight services for a Class I injection well system that includes two (2) deep injection wells each with 24-inch final casings lined with FRP tubing and fluid-filled annulus. At completion, each injection well will have a permitted injection capacity of 18.65 MGD.

Melbourne Reverse Osmosis WTP (Ongoing) - Providing technical field oversight during construction and testing of one (1) non-hazardous Class I Injection wells (IW-1) and two (2) associated monitor wells (SMW-1 and DMW-1) for the Melbourne Reverse Osmosis WTP.

Coral Springs Improvement District WTP - Preparation of the Area or Review (AOR), compilation, and analysis of water quality and operating data for the 2024 Class I Well Operating Permit application.

Frankens Energy Indian River Eco District Facility – Provided technical field oversight and preparation of the 2024 mechanical integrity testing (MIT) report of one (1) non-hazardous Class I Injection well (IW-1) for the Indian River Eco District Facility.

City of Port St. Lucie James E. Anderson WTP – Provided technical field oversight and preparation of the 2024 MIT report of one (1) non-hazardous Class I Injections well (IW-1) for the City of Port St. Lucie James E. Anderson WTP.

Martin County Utilities Tropical Farms WTP/WWTP – Provided technical field oversight and preparation of the 2024 MIT report of two (2) non-hazardous Class I Injections wells (TFIW-1 and TFIW-2) for the Martin County Utilities Tropical Farms WTP/WWTP.

Black and Veatch (2022–2024) - Field Construction Inspector 4 / Hydrogeologist 3

Lee County Utilities | Preliminary Injection Well Design and Class I Injection Well Construction Application Package - Preparation of a Preliminary Design Report (PDR) and a Class I Injection Well Construction Permit application for the Three Oaks WRF Deep Injection Well No. 2.

City of Boca Raton | Wells 36W and 37W Upgrades - Providing technical oversight during the acidizing of the 36W, and 37W water production wells. The acidizing work consists of performing pre- and post-acidizing step drawdown pump testing, pre- and post-video surveys, and well development.

Private Industrial Client | SFM Eastern Extension Slurry Wall Evaluation in Hardee County, FL - Assisting with technical oversight of the drilling of standard penetration testing (SPT) and rock coring for a geotechnical investigation of a future phosphate mine site that an impermeable slurry wall will be constructed around.

Private Industrial Client | Prefeasibility Analysis to Storage Carbon Dioxide in the Gulf Coast using Class VI injection wells Facilities - Pre-feasibility Geologic Assessment and Site Screening in the Gulf Coast to storage Carbon dioxide using Class VI injection wells.

City of Fort Myers Wellfield Expansion Project - Providing specialized engineering services during well construction and testing for new Upper Floridan Aquifer (UFA) production wells.

Miami-Dade WASD | North District WWTP Deep Injection Well System - Providing specialized engineering and hydrogeologic services by supporting QAQC during the construction and testing of 5-UIC Class I Municipal Injection Wells at the North District Wastewater Treatment Plant (NDWWTP). Each injection well was designed to be 3,300 feet bls with a capacity of 18.6 MGD.

HBC Engineering Company (2021-2022) - Well Field Technician

Drilcon Ltd (2016–2019), Colombia

Education

2010, B.S. Petroleum Engineering, Universidad de América, Colombia.

Sarah "Sally" Durall

McNabb-Miller Hydrogeologic Consulting, Inc.

Project Related Experience

McNabb-Miller Hydrogeologic Consulting, Inc., Jupiter, Florida - (2008-present) - Project Geologist/Project Manager

FPL Turkey Point CWRC Deep Injection Well System – Provided construction oversight services for a Class I injection well system that includes two (2) deep injection wells each with 24-inch final casings lined with FRP tubing and fluid-filled annulus. At completion, each injection well will have a permitted injection capacity of 18.65 MGD.

North Springs Improvement District WTP Class I Injection Well System – Provided construction oversight services for construction of Class I deep injection well IW-1 and associated dual-zone monitor well MW-1.

City of Hollywood SRWWTP Injection Well System – Provided construction oversight services for construction of 2 deep injection wells and 1 dual-zone monitor well. The injection wells were drilled to a depth of 3,500 feet, completed with 36-inch diameter final casing, 24-inch FRP liner and each well has a capacity of 19.92 mgd.

Florida Power & Light Okeechobee Clean Energy Center Injection Well System – Provided construction oversight services for construction of 2 deep injection wells and 1 dual-zone monitor well. The injection wells were drilled to a depth of 3,200 feet and each have a capacity of 9.6 mgd.

Martin County Utilities North W/WWTP Dual-Zone Monitor Well – Provided construction oversight services for construction of one 2,300-foot deep dual-zone monitor well associated with the Class I deep injection well system at the County's North Water and Wastewater Treatment Plant. The project also included the oversight of the plugging and abandonment of the original dual-zone monitor well.

City of West Palm Beach East Central Regional WRF Dual-Zone Monitor Wells – Provided construction oversight services for construction of three 2,300-foot deep dual-zone monitor wells associated with the Class I deep injection well system at the East Central Water Reclamation Facility. The project included the plugging and abandonment of three monitoring tubes that were no longer in service.

Port St. Lucie Injection Well Systems – Provided regulatory compliance assistance for each of the City's deep injection well systems. Services provided included preparing operating permit renewals and mechanical integrity testing field services for the City injection well systems.

ARCADIS, Inc. (1999 – 2008) - Hydrogeologist

The Town of Highland Beach Floridan Supply – Managed the construction and testing of a Floridan Aquifer supply well for the Town's Reverse Osmosis Water Treatment Facility.

Village of Tequesta Floridan Supply Wells – Managed the construction and testing of two Floridan Aquifer supply wells for the Village of Tequesta Water Treatment Facility.

Seacoast Utility Authority Floridan and Surficial Aquifer Supply Wells – Provided design, permitting and resident observation services for a Floridan Aquifer supply well located at the Seacoast Utility Authority in Palm Beach Gardens, Florida. Managed the construction and testing of multiple replacement Surficial Aquifer supply wells located in Palm Beach Gardens and North Palm Beach, Florida.

Florida Governmental Utility Authority Floridan Aquifer Supply Wells – Provided design and technical specifications for the construction and testing of multiple Floridan Aquifer wells for the Florida Governmental Utility Authority water treatment facilities located in Collier, Polk, and Osceola Counties, Florida.

City of Port St. Lucie James E. Anderson Class I Industrial Deep Injection Well System – Provided construction oversight services for construction of a Class I Industrial deep injection well system for disposal of reverse osmosis concentrate at the City's James E. Anderson Reverse Osmosis Water Treatment Plant. Also provided resident observation and consulting services for mechanical integrity testing and operating permit renewal.

City of Port St. Lucie Westport Class I Industrial Deep Injection Well System – Provided construction oversight services for construction of a tubing and packer design deep injection well system for disposal of wastewater and reverse osmosis concentrate at City's Westport Wastewater Treatment Plant. Also provided consulting services for mechanical integrity testing and operating permit renewal for the deep injection well system.

Education

1999, B.S. Geology, University of Tennessee at Knoxville

MERCHANT STRATEGY

Sharon J. Merchant, President

Public Involvement Project Manager

Professional Credentials

Bachelor of Science
International Affairs
Florida State University 1986
Former Member, Florida House of Representatives, 4 terms
Jim Moran Institute for Global Leadership Small Business Executive Program
Florida State University 2016
LeRoy Collins Public Ethics Academy
Advisory Board, Member

Basis for Team Selection

Statewide relationships with City, County, State and Federal Elected Officials and Key Decision Makers. Focused on Customer satisfaction and Positive outcomes. Consensus Builder and Team Player.

Experienced Leader

Public Involvement: 19 years
Government Relations: 27 years
Business Development: 19 years

Experience

Ms. Merchant brings 30 years of public and private leadership experience as a Member of the Florida House of Representatives and President of The Merchant Strategy (TMS) offering clients public involvement, governmental relations, and community relations services.

Public Involvement Experience:

AECOM: Sharon is the Public Involvement Manager for the City of Boynton Beach Coquina Cove Drainage Project. She is in charge of coordinating with utility companies to assist the Project Team and the City in their endeavor to underground the utilities. She is responsible for Quality Assurance and Quality Control and will attend all neighborhood and public meetings.

Kimley Horn: Sharon was the Public Involvement Officer for this Orange City Septic to Sewer Conversion project. She was responsible for Quality Assurance and Quality Control.

City of Boynton Beach: Sharon is the Public Involvement Manager on the Lakeside Gardens Neighborhood Drainage Improvements project. She is coordinating with utility companies to assist the Project Team and the City in their endeavor to underground the utilities.

WGI: Sharon is the Public Involvement Officer for this City of Port Saint Lucie Hogpen Slough Stormwater Treatment Area project. She is responsible for Quality Assurance and Quality Control.

Whiting Turner: Sharon is the Public Involvement Manager for this City of Hollywood CMAR North Beach Utilities Underground Conversion and Hollywood Beach Utility project. She is responsible for all Quality Assurance and Quality Control.

Jacobs Engineering: Sharon is the Public Involvement Manager for this St. Johns County Utility Department Design-Build Services for wells. She is responsible for Quality Assurance and Quality Control.

CES Construction: Sharon was the Public Involvement Manager for four Seacoast Utilities projects in Palm Beach Gardens: Garden Isles Water Main Replacement project; Juno Isles East Water Main Replacement project; Captains Key Water Main Replacement project; and Crystal Pointe Water Main Replacement project. She was responsible for QAQC.

MERCHANT STRATEGY

Cheryl Scott

Experienced Operations and Project Manager

Basis for Team Selection

Project Schedules
Task Sheets
Invoices
Accounts Receivable/Payable
Insurance

Education Experience

Michigan State University Bachelor's Degree in Communications
Oakland University
Associate of Arts Degree in Journalism

Experienced Leader

Office Policy and Procedures
Strategic Planning
RFP Preparation

Professional Credentials

FHWA Bikeway Selection Guide Workshop Certification
Jim Moran Institute for Global Leadership Small Business Executive Program

Summary:

Cheryl is responsible for all operational processes and procedures. Her 20 plus years of administrative and management experience makes her a valuable asset to TMS. Cheryl supports TMS President, Sharon Merchant, in project management by creating and maintaining project schedules and keeps the prospect pipelines up to date. She is responsible for contract administration and project management. All critically important office decisions are made with input from Cheryl.

Public Involvement Experience:

Carnahan Proctor and Cross: Cheryl is the Public Involvement Officer for the City of Delray Beach North Swinton Avenue Roadway Underground Utility Improvements project. She is responsible for staffing the project hotline and providing monthly reports on the hotline activity. She will develop informational door hangers and collaterals, as well as attend and provide all logistics for public meetings. Cheryl is responsible for the maintenance of the project webpage.

WGI: Cheryl is the Public Involvement Officer for this City of Port Saint Lucie Hogpen Slough Stormwater Treatment Area project. She is responsible for development of collaterals, setting up and monitoring a project hotline and meeting attendance.

Amici Engineering: Cheryl is the Public Involvement Manager for this Seacoast Utility Authority Juno Isles East Water Main Replacement Project. She developed a project webpage and a Public Involvement Plan (PIP**).** Cheryl staffs a project hotline and will provide monthly progress reports. She will handle logistics for all public meetings and develop necessary collaterals.

Keith and Associates: Cheryl is the Public Involvement Manager for the City of Delray Beach Pompey Park Recreation Center Owner's Representative. As part of her role, she will manage and update the project webpage and staff the project hotline. Cheryl will develop press releases, signage, and collateral materials such as door hangers, mailers, and flyers. She will also attend project team and progress meetings.

Kimley Horn: Cheryl was the Public Involvement Officer for this Orange City Septic to Sewer Conversion project. She was responsible for development of collaterals.

Whiting Turner: Cheryl is the Public Involvement Officer for this City of Hollywood CMAR North Beach Utilities Underground Conversion and Hollywood Beach Utility project. She is responsible for all collateral materials, development of a project webpage, monitoring a project hotline and handling logistics and attending all public meetings.

TAB 3: DESIGN-BUILD EXPERIENCE

The FDD team has significant successful experience with general engineering consulting, evaluation, and implementation of numerous well and design-build projects. A brief summary of relevant design-build and well projects completed for various local clients is included below. Projects in which the proposed Design-Build team has worked together are noted with an asterisk ***.

FLORIDAN AQUIFER WELL DESIGN-BUILD EXPERIENCE

North Springs Improvement District UFA Supply Well F1 (Design Build)

FDD provided complete design, permitting, well construction, well testing and all surface equipment for a new 16" diameter Upper Florida Aquifer (UFA) water supply well. Surface features included stainless-steel wellhead, well pump and column pipe, well pad, I&C, electrical and piping tie-in to existing raw water line.

North Springs Improvement District UFA Supply Well F1

Client Contact	Rod Colon District Manager North Springs Improvement District 9700 NW 52nd Street, Coral Springs, FL 33076 Phone: (954) 752-0400 Email: RodC@NSIDFL.Gov
Project Dates	2019-2020
Responsible FDD Team Member	Michael Black Brandon Holst
Key Subconsultants/Subcontractors	Florida Design was Prime
Completed on Time	Yes
Completed within Budget	Yes - $1,848,090.94
Change Orders Issued (if any)	None

FLORIDAN AQUIFER WELL EXPERIENCE

***Seacoast Utility Authority Well F6

FDD provided well construction and well testing for a new UFA water supply well F6. The project included construction and testing of one new 14" diameter UFA water supply well. Testing included geophysical logging, packer testing, capacity testing and complete water quality testing. Additionally, acidization of the completed well was performed to maximize well capacity.

HCE provided survey, design, permitting, and engineering services during construction for the well head and civil site work.

Seacoast Utility Authority Well F6

Client Contact	Brandon Selle, P.E. Chief Operations Officer Seacoast Utility Authority 4200 Hood Road, Palm Beach Gardens, FL 33410 Phone: (561) 628-6175 Email: bselle@sua.com
Project Dates	2018
Responsible FDD Team Member	Michael Black Brandon Holst
Key Subconsultants/Subcontractors	Florida Drilling performed 95%+ of work.
Completed on Time	Yes
Completed within Budget	Yes - $848,484.00
Change Orders Issued (if any)	3 minor CO's for Client Requested additional items

***Seacoast Utility Authority Floridan Wellhead F5 and Raw Water Main

HCE provided surveying, design, permitting, bidding assistance, and construction administrative services for a new Floridan aquifer well including a stainless-steel wellhead, pump, stainless steel discharge piping, and a HDPE and PVC raw water main from the F-5 wellhead to the Hood Road Water Treatment Plant. This project included approximately 3,600 feet of 18-inch raw water main that was installed via open cut and horizontal directional drilling methods parallel to the Eastern Palm Beach-3C Canal and through an existing neighborhood.

This project was publicly bid and Florida Design Drilling was selected to perform the work.

Seacoast Utility Authority Floridan Wellhead F5 and Raw Water Main

Client Contact	Brandon Selle, P.E. Chief Operations Officer Seacoast Utility Authority 4200 Hood Road, Palm Beach Gardens, FL 33410 Phone: (561) 628-6175 Email: bselle@sua.com
Project Dates	November 2014 – September 2017
Responsible FDD Team Member	Curtis Robinson, PE Harrison Barron, PE
Key Subconsultants/Subcontractors	Florida Design Drilling was Prime Contractor
Completed on Time	Yes
Completed within Budget	Yes - $893,000
Change Orders Issued (if any)	$18,886.56 (2%) Due to owner requested changes

Seacoast Utility Authority Well F9

HCE provided surveying, design, permitting, bidding assistance, and construction administrative services for a new Floridan aquifer well including a stainless-steel wellhead, pump, and stainless steel discharge piping. The well site was located at the entrance to a new residential development and the work was designed to minimize impact to residents and extensive landscaping was performed at the end of the project.

Seacoast Utility Authority Well F9

Client Contact	Brandon Selle, P.E. Chief Operations Officer Seacoast Utility Authority 4200 Hood Road, Palm Beach Gardens, FL 33410 Phone: (561) 628-6175 Email: bselle@sua.com
Project Dates	2021
Responsible FDD Team Member	Curtis Robinson, PE Harrison Barron, PE
Key Subconsultants/Subcontractors	HCE
Completed on Time	No
Completed within Budget	Yes - $1,463,000
Change Orders Issued (if any)	-$90,891

Polk Regional Water Cooperative – Polk SE and Polk West Wellfields Floridan Aquifer Wells

FDD provided well construction and well testing for a new UFA water supply test well, new Lower Floridan Aquifer (LFA) water supply test well and associated new LFA Monitor well and UFA/LFA dual-zone monitor well. In addition to well construction, the project included geophysical logging, packer testing, well capacity testing, aquifer performance testing and complete water quality testing at depths down to 3,000'.

PRWC Polk SE and Polk West Wellfields Floridan Aquifer Wells

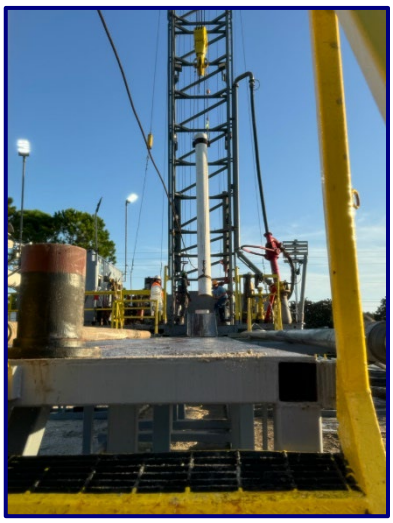
Client Contact	Scott Manahan, P.E. Senior Vice President WSP 1567 Hayley Lane, Fort Myers, FL 33907 Phone: (239) 271-3748 Email: scott.manahan@wsp.com
Project Dates	2018-2019
Responsible FDD Team Member	Michael Black Brandon Holst
Key Subconsultants/Subcontractors	Florida Drilling performed 95%+ of work.
Completed on Time	Yes
Completed within Budget	Yes - $4.8M
Change Orders Issued (if any)	None

Broward County District 1 WTP Expansion Floridan Aquifer Test Wells

FDD provided well construction and well testing for two new Floridan aquifer water supply test wells to 1,800'. The project included geophysical logging, packer testing, well capacity testing, aquifer performance testing, well acidization, concrete well pads, fencing and complete water quality testing.

Broward County District 1 WTP Expansion Floridan Aquifer Test Wells

Client Contact	Neil Johnson, P.G. Senior Principal Stantec 2056 Vista Parkway, Ste 100, WPB, FL 33411 Phone: 954-806-7106 Email: Neil.Johnson@stantec.com
Project Dates	2015
Responsible FDD Team Member	Dan Ringdahl
Key Subconsultants/Subcontractors	Florida Drilling performed 95%+ of work.
Completed on Time	Yes
Completed within Budget	Yes - $2.68M
Change Orders Issued (if any)	None



Indian River County UFA Well S-1R

FDD provided well construction and well testing for a new UFA water supply well S-1R. The project included construction and testing of one new 17.4" diameter UFA water supply well. Testing included geophysical logging, well capacity testing and complete water quality testing. Additionally, acidization of the completed well was performed to maximize well capacity.

Indian River County Well S-1R

Client Contact	Harrison Youngblood, P.E. Utilities Engineer Indian River County 1801 27th Street, Vero Beach, FL 32960 Phone: 772-226-1826 Email: hyoungblood@ircgov.com
Project Dates	2024
Responsible FDD Team Member	Brandon Holst Mike Black
Key Subconsultants/Subcontractors	Florida Drilling performed 95%+ of work.
Completed on Time	Yes
Completed within Budget	Yes - $1.6M
Change Orders Issued (if any)	None

ADDITIONAL WELL DESIGN-BUILD EXPERIENCE

******North Springs Improvement District Deep Injection Well IW-1 and DZMW-1***

FDD provided complete design, permitting, well construction, well testing, all surface equipment including wellheads, well pads, I&C, electrical and piping tie-in to existing concentrate line for a new Deep Injection Well System. The project included deep injection well IW-1, dual-zone monitor well DZMW-1 and all associated stainless-

steel wellheads, concrete well pads, I&C, electrical, tie-into concentrate disposal for IW-1 and purge piping for DZMW-1. The project also included injection testing of the completed system. FDD was prime and employed the services of McNabb Hydrogeologic Consulting, Inc. (now McNabb-Miller Hydrogeologic, Inc.) as Professional Geologist and VLC One, Inc. as Professional Engineer of Record. HCE took over as the Engineer of Record during the operational permitting phase of the project.

North Springs Improvement District IW-1 and DZMW-1

Client Contact	Rod Colon District Manager North Springs Improvement District 9700 NW 52nd Street, Coral Springs, FL 33076 Phone: 954-752-0400 Email: RodC@NSIDFL.Gov
Project Dates	2018-2022
Responsible FDD Team Member	Michael Black Brandon Holst
Key Subconsultants/Subcontractors	Florida Design was Prime; McNabb Hydrogeologic, Inc. was P.G.
Completed on Time	Yes
Completed within Budget	Yes - $6M
Change Orders Issued (if any)	None

******Seacoast Utility Authority Supplemental Wells SR-2 and SR-3 Wellhead Improvements***

Florida Design Drilling and Holtz Consulting Engineers designed and constructed modifications to Supplemental Wells SR-2 and SR-3 wellheads including replacement of piping, valves, backflow preventers, check valves, fittings, flow meter, and associated appurtenances; a new pressure switch and gauge downstream of the backflow preventer; a new concrete slab within the limits of the fenced in area; a new LED light fixture on the existing pole; coating of the above-grade piping; and startup and testing services.

Seacoast Utility Authority Supplemental Wells SR-2 and SR-3 Wellhead Improvements

Client Contact	Brandon Selle, P.E. Chief Operations Officer Seacoast Utility Authority 4200 Hood Road, Palm Beach Gardens, FL 33410 Phone: (561) 628-6175 Email: bselle@sua.com
Project Dates	October 2020 – February 2023
Responsible FDD Team Member	Jeffery Holst and Curtis Robinson, PE
Key Subconsultants/Subcontractors	N/A
Completed on Time	Yes
Completed within Budget	Yes - $422,657.99
Change Orders Issued (if any)	$25,739 (Additional work requested by the Owner)

***Seacoast Utility Authority Well BR-26 Rehabilitation**

Florida Design Drilling and Holtz Consulting Engineers performed the rehabilitation of one of SUA's supply wells which had diminishing specific capacity. The project included pulling the existing well screen and riser, installation of a liner to prevent settling, deepening the existing production interval, acidization, and then installing a new stainless steel screen and gravel pack.

Seacoast Utility Authority Well BR-26 Rehabilitation

Client Contact	Brandon Selle, P.E. Chief Operations Officer Seacoast Utility Authority 4200 Hood Road, Palm Beach Gardens, FL 33410 Phone: (561) 628-6175 Email: bselle@sua.com
Project Dates	July 2022 – March 2024
Responsible FDD Team Member	Brandon Holst and Curtis Robinson, PE
Key Subconsultants/Subcontractors	FDD
Completed on Time	Yes
Completed within Budget	Yes - $391,555.00
Change Orders Issued (if any)	-$72,705.60 (Value engineering performed during construction)

ADDITIONAL WELL EXPERIENCE

***Florida Power & Light, Co. – Turkey Point Deep Injection Well System (DIW-2, DIW-3 and DZMW-2)**

FPL utilizes two separate Class I deep injection well systems to meet the wastewater disposal requirements from the power generation process at its Turkey Point Power Plant. McNabb-Miller Hydrogeologic Consulting, Inc. (MMHC), teamed with Holtz Consulting Engineers, Inc. (HCE) and C&W Engineers, Inc. (C&W), provided FPL design, permitting, construction management and reporting services for both injection well systems. FDD performed complete well construction, well testing, all surface equipment for a new Deep Injection Well System. The project included deep injection well DIW-2, DIW-3, DZMW-2 and all associated stainless-steel wellheads,

concrete well pads, I&C, electrical and wellhead piping. The project also included injection testing of the completed system. For the most recent injection well system, FPL secured the MMHC team to provide services for construction and testing of two Class I deep IWs and one DZMW at the Turkey Point Clean Water Recovery Center. Construction commenced in February 2023. An aggressive 24-hr/7-day construction schedule was implemented to meet contract requirements. For a portion of the project three drill rigs were in operation simultaneously to drill the two IWs and DZMW.

FPL Turkey Point Deep Injection Well System

Client Contact	David Xavier, P.E. Project Manager Florida Power & Light Co. 4300 Kyoto Gardens Dr., PBG, FL 33410 Phone: 772-631-6686 Email: David.XAVIER@fpl.com
Project Dates	2022-2024
Responsible FDD Team Member	Brandon Holst Mike Black
Key Subconsultants/Subcontractors	Florida Design performed 95% of work; Cyber Electric and Locher Environmental (I&C)
Completed on Time	Yes
Completed within Budget	Yes - $20M (Private Client)
Change Orders Issued (if any)	None

Village of Palm Springs Surficial Production Well Rehabilitation

The project included engineering and hydrogeological services for the rehabilitation of multiple surficial aquifer production wells over several years including wells 11, 12, 13, 15, 16, 17, and 18. The project included developing a well rehabilitation procedure/approach, procurement assistance to piggy-back an existing well drilling contract, oversight of the well rehabilitation, and preparation of a technical memorandum summarizing the well rehabilitation activities and results at the conclusion of the field work.

Village of Palm Springs Surficial Production Well Rehabilitation

Client Contact	Andrew Klausner – Project Manager 226 Cypress Lane Palm Springs, FL 33461 Phone: 561-584-8200, x8721 Email: aklausner@vpsfl.org
Project Dates	March 2019 – September 2023
Responsible FDD Team Member	Harrison Barron, PE
Key Subconsultants/Subcontractors	N/A
Completed on Time	Yes
Completed within Budget	Yes - $382,118.41
Change Orders Issued (if any)	None

Village of Palm Springs Replacement of Surficial Aquifer Well 14

The project includes engineering and hydrogeological services for the design, permitting, bidding, construction, and testing required to replace one existing surficial aquifer production well in place. HCE performed extensive coordination with the Palm Beach County School District as necessary to facilitate procurement of new easements and to allow installation of an LPG-style Emergency generator serving Well 14 and off-site Well 13. HCE also coordinated with the Palm Beach County Health Department as necessary to obtain a variance for the necessary well construction permit. HCE completed the design, permitting, and bidding and is providing construction services.

Village of Palm Springs Replacement of Surficial Aquifer Well 14 and Installation of Standby Generator

Client Contact	Andrew Klausner – Project Manager 226 Cypress Lane Palm Springs, FL 33461 Phone: 561-584-8200, x8721 Email: aklausner@vpsfl.org
Project Dates	February 2023 – Ongoing
Responsible FDD Team Member	Harrison Barron, PE
Key Subconsultants/Subcontractors	C&W Engineering
Completed on Time	Ongoing
Completed within Budget	Anticipated: $1,925,994 (w/in Budget)
Change Orders Issued (if any)	None

******Village of Palm Springs Well No. 9 Replacement***

The project includes engineering and hydrogeological services for the design, permitting, bidding, construction, and testing required to reconstruct one existing surficial aquifer production well in place. HCE performed all coordination with FPL for the design and temporary relocation of existing overhead power lines required to reconstruct the well. HCE completed the design, permitting, and bidding and will provide construction services.

Village of Palm Springs Well No. 9 Replacement

Client Contact	Andrew Klausner – Project Manager 226 Cypress Lane Palm Springs, FL 33461 Phone: 561-584-8200, x8721 Email: aklausner@vpsfl.org
Project Dates	January 2020 - Ongoing
Responsible FDD Team Member	Brandon Holst and Jeff Holst
Key Subconsultants/Subcontractors	C&W
Completed on Time	Ongoing
Completed within Budget	Anticipated: $1,297,441.16 (Under Budget)
Change Orders Issued (if any)	None

SUA Surficial Aquifer Production Well Replacement and Rehabilitation Program

HCE is assisting Seacoast Utility Authority with a phased, multi-year program of replacing aged surficial aquifer production wells. HCE has assisted with the replacement of 38 wells in multiple phases. Each phase included separate design documents, permits from the Palm Beach County Health Department and the South Florida Water Management District, and bidding and construction assistance services. The wells are being constructed by multiple contractors. The replacement wells are located in the same easements or on the same sites as the original wells. These projects included hydraulic modeling of the raw water system, screened and open-hole wells, new well heads and raw water mains, and associated electrical and instrumentation.

SUA Surficial Aquifer Production Well Replacement and Rehabilitation Program

Client Contact	Brandon Selle, P.E. Chief Operations Officer Seacoast Utility Authority 4200 Hood Road, Palm Beach Gardens, FL 33410 Phone: (561) 628-6175 Email: bselle@sua.com
Project Dates	April 2010 – September 2024
Responsible FDD Team Member	Curtis Robinson, PE Harrison Barron, PE
Key Subconsultants/Subcontractors	C&W
Completed on Time	Yes
Completed within Budget	Yes – Total Program Construction Cost ~35M
Change Orders Issued (if any)	Varied by Phase. Total change orders <5%

PIPELINE EXPERIENCE

City of Port St. Lucie Glades to Tradition Reuse Water Main

HCE provided professional engineering services related to the survey, geotechnical exploration, modeling, design, permitting, bidding, and construction for an approximately 12,250 linear foot extension of the City's existing reuse water main originating from their Glades Wastewater Treatment Facility. The proposed extension started from the reuse water main's existing termination near Glades Cut-off Road and extended to the Glades Force Main Repump Station site at the end of SW Tradition Parkway right-of-way. The reuse water main extension allowed the City to provide reuse water sales to the Tradition Irrigation Company and provide the transmission for future expansion of the reuse system to developments including Verano, Western Grove, Riverland-Kennedy, and Wilson Groves.

As part of this project, HCE estimated future reuse demand for approximately 20,000 acres of service area in the southwest area of the City. HCE performed hydraulic modeling using the reuse demand estimates to determine the proposed water main extension sizing. The hydraulic modeling effort also extended to analyzing future expansion of the system as the southwest area of the City is built-out. A preliminary design report was prepared summarizing the demand estimates, modeling results, and future improvements required as the system expands.

Approximately 12,100 linear feet of 24-inch diameter reuse water main was installed. In addition, approximately 840 linear feet of 36-inch wastewater FM was constructed across roadways and across power line corridors during this project for future tie in and to eliminate the need to impact these areas in the future. The reuse water main was designed to be primarily installed by open cut.; however, horizontal directional drills were required in four (4) areas to cross an existing wetland and existing ditches along the route.

City of Port St. Lucie Glades to Tradition Reuse Water Main

Client Contact	John Eason, PE Assistant Director, City of Port St. Lucie 1001 SE Prineville St, Port St. Lucie, FL 34983 Phone: 772-873-6487 Email: JEason@cityofpsl.com
Project Dates	December 2020 – September 2023
Responsible FDD Team Member	Curtis Robinson, PE and Ben Fecko, PE
Key Subconsultants/Subcontractors	N/A
Completed on Time	Yes
Completed within Budget	Yes - $352,162
Change Orders Issued (if any)	$506,456.97 (Additional roadway was constructed by developer – the 24" RCWM was changed from open cut to bore and owner added 190 LF of 36" FM for a future connection.)

Seacoast Utility Authority Hood Road 36-inch Raw Water Main

HCE provided survey, design, permitting, bidding and construction engineering services for 3,200 linear feet of 36-inch raw water main located in easements and right-of-ways along Hood Road in Palm Beach Gardens, Florida. Over 3,600 linear feet of fiber optic conduit was also designed and constructed as part of the project. The project included PVC, HDPE and ductile iron pipe installed both via open-cut and directional drill methods. Horizontal directional drills were designed beneath major thoroughfares. The project was designed to accommodate the future widening of Hood Road. Permits were obtained from multiple agencies including the Palm Beach County Health Department, City of Palm Beach Gardens, and Palm Beach County Land Development Department. During construction, HCE negotiated a $116,000 credit from the contractor for utilizing alternate pipe materials.

Seacoast Utility Authority Hood Road 36-inch Raw Water Main

Client Contact	Brandon Selle, P.E. Chief Operations Officer Seacoast Utility Authority 4200 Hood Road, Palm Beach Gardens, FL 33410 Phone: (561) 628-6175 Email: bselle@sua.com
Project Dates	October 2015–July 2018
Responsible FDD Team Member	Christine Miranda, PE and Stephen Fowler, PE
Key Subconsultants/Subcontractors	N/A
Completed on Time	Yes
Completed within Budget	Yes - $116,178
Change Orders Issued (if any)	-$71,132.50 (-3.8%)

City of Boca Raton Innovative Sustainable Infrastructure Program

HCE provided professional engineering services related to the survey, geotechnical exploration, design, permitting, bidding, and construction for 52,612 linear feet of potable water main and 8,136 linear feet of force main replacement for the City's city-wide utility replacement program. Construction of an additional 34,190 linear feet of water main and 7,040 linear feet of force main is scheduled to be completed in 2026. Design for an additional 50,836 linear feet of water main is currently underway. In 2018, the City introduced its Innovative Sustainable Infrastructure Program (iSIP). This long-term initiative uses technology and data to evaluate, prioritize, and improve critical infrastructure throughout the City. The

program's goal is to holistically upgrade the existing neighborhood infrastructure including water, sewer, stormwater, sidewalk, shared-use paths, landscaping, lighting, and roadway systems.

Proposed utility improvements have primarily been installed using open-cut methods but have also included an approx. 1,450 linear foot 24" Fusible PVC main installed via horizontal directional drilling methods under Interstate 95 as well as many DR-11 HDPE directional drills ranging in size from 6" to 20". Coordination between multiple governmental authorities including City, County, Lake Worth Drainage District, and FDOT has been required as neighborhood improvements have spanned large geographical areas within the City's utility system.

A primary goal of the program has been to minimize disruption to residents to the greatest extent possible via careful scheduling, sophisticated maintenance of traffic planning, and a well developed public outreach program including a dedicated program website, public informational meetings, public mailers, door-tagging, on-site meetings with concerned residents, and NextDoor notifications.

City of Boca Raton Innovative Sustainable Infrastructure Program

Client Contact	Chris Helfrich, P.E. Director of Utility Services, City of Boca Raton 1401 Glades Road, Boca Raton, FL 33431 Phone: 561-338-7303 Email: CHelfrich@bocaraton-fl.gov
Project Dates	August 20185- Ongoing
Responsible FDD Team Member	Harrison Barron, PE and Christine Miranda, PE
Key Subconsultants/Subcontractors	N/A
Completed on Time	Yes
Completed within Budget	Yes - $19,250,473
Change Orders Issued (if any)	($792,277) - (Net Contract Price decrease across multiple projects between additional work items requested by City, unused contingencies, and value-engineering)

City of Stuart Concentrate Main and State Revolving Fund (SRF) Assistance

HCE performed design, permitting, State Revolving Fund (SRF) funding assistance, bidding, and engineering services during construction of approximately 5,400 linear feet of 12" HDPE Concentrate main from the City of Stuart Water Treatment Plant to the City of Stuart Water Reclamation Facility. Approximately 5,400 linear feet of fiber optic conduit was also designed as part of the project. The project included HDPE mains installed both via open-cut and directional drill methods. The routing of the mains were through existing residential neighborhoods within the City. This project was funded through the SRF program. HCE prepared and submitted the facilities plan that was required to obtain the SRF loan for this project. HCE also provided SRF assistance during construction including ensuring the requirements of the American Iron and Steel (AIS) Act are met for applicable materials, reviewing certified payrolls and conducting labor interviews for Davis Bacon Wage compliance, and assistance in preparation of disbursement requests to go to the SRF program for processing.

City of Stuart Concentrate Main and State Revolving Fund (SRF) Assistance

Client Contact	Marc Rogolino Project Manager, City of Stuart 121 SW Flagler Avenue Stuart, FL 34994 Phone: 772-221-4700 Fax: 772-288-5381 Email: mrogolino@stuartfl.gov
Project Dates	June 2020 – October 2023
Responsible FDD Team Member	Christine Miranda, PE and Benjamin Fecko, PE
Key Subconsultants/Subcontractors	N/A
Completed on Time	Yes
Completed within Budget	Yes -$203,475
Change Orders Issued (if any)	*-$61,697.00 (-6.9%)*

Martin County Utilities Western Force Main & Water Main Extension Project

HCE provided hydraulic modeling, design, permitting, and contractor procurement services for the installation of approximately 29,800 linear feet of water and 36,000 linear feet of wastewater force mains ranging in size from 16-inch to 6-inch necessary to include new customers, currently served by individual septic tanks, in the service area located along State Road 714 between Florida's Turnpike and Interstate 95. The project will connect these Western Utility Extension users to the Martin County Utilities wastewater transmission system upstream of existing Lift Station No. 540. HCE has designed upgrades to existing Lift Station No. 540 to repump wastewater flow from the Western Corridor Extension to the Martin Downs In-line Booster Pump Station, also designed by HCE. The project also included a HDD beneath Florida's Turnpike.

Martin County Utilities Western Force Main & Water Main Extension Project

Client Contact	Leo Repetti, PE Technical Services Administrator, Martin County Utilities PO Box 9000, Stuart, FL 34995 Phone: 772-221-2353 Fax: 772-221-1447 Email: LRepetti@martin.fl.us
Project Dates	September 2019-Current
Responsible FDD Team Member	Curtis Robinson, PE
Key Subconsultants/Subcontractors	C&W
Completed on Time	Ongoing
Completed within Budget	Yes - $439,480
Construction Change Orders Issued (if any)	Ongoing

ADDITIONAL DESIGN-BUILD EXPERIENCE

***Village of Indiantown Wastewater Treatment Plant Expansion

Florida Design Drilling is the prime firm for the expansion of the Village of Indiantown Wastewater Treatment Plant (WWTP). Team members include HCE, C&W, and Wekiva. The project includes increasing the capacity of the WWTP to 1.2 MGD AADF and improving the treatment capability so the effluent meets new more stringent nitrogen and phosphorous limits. The new WWTP will be a four-stage Bardenpho process with a new headworks, equalization basin, anoxic and aeration basins, and secondary clarifiers. The existing filters and disinfection system are being rehabilitated. A new triplex, submersible master lift station is being constructed along with a new administration/electrical building. The project is being initiated with initial agreements for preliminary and final design services and then seven GMPs for various portions of the project.

Village of Indiantown Wastewater Treatment Plant Expansion

Client Contact	Patrick Nolan Utilities and Public Works Director Village of Indiantown 15516 SW Osceola St., Suite B Indiantown, Florida 34956 Phone: (772) 341-3098 Email: PNolan@Indiantownfl.gov
Project Dates	February 2024 - Ongoing
Responsible FDD Team Member	Jeffrey Holst Curtis Robinson, PE and Ben Fecko, PE
Key Subconsultants/Subcontractors	HCE, C&W, and Wekiva
Completed on Time	Ongoing
Completed within Budget	Ongoing (Total Cost ~$25M)
Change Orders Issued (if any)	Ongoing

***Seacoast Utility Authority PGA WWTP Process Water Improvements

Florida Design Drilling and Holtz Consulting Engineers designed and constructed an extension to the process water system at the PGA WWTP. Anticipated improvements included extending a 2-inch process water pipe from an existing six-inch ductile iron process water pipe to the deep injection well and pump station and installing hose washdown stations. The washdown stations included stainless steel hose bibbs, racks, and appurtenances. The design also included the installation of six (6) new isolation valves on the process water distribution system. Twenty-eight (28) valve box collars were also removed and new concrete valve collars with identification tags were installed.

Seacoast Utility Authority PGA WWTP Process Water Improvements

Client Contact	Brent Weidenhamer, P.E. Director of Operations Seacoast Utility Authority 4200 Hood Road, Palm Beach Gardens, FL 33410 Phone: (561) 628-6175 Email: bweidenhamer@sua.com
Project Dates	February 2023 – June 2024
Responsible FDD Team Member	Jeffrey Holst and Curtis Robinson, PE
Key Subconsultants/Subcontractors	FDD
Completed on Time	Yes
Completed within Budget	Yes - $351,888.93
Change Orders Issued (if any)	$72,115.25 (Owner Requested Changes)

******Seacoast Utility Authority Hood Road Water Treatment Plant Louver and Exhaust Fan Replacement***

Holtz Consulting Engineers with FDD and Wekiva and subcontractors and subconsultants designed and constructed the replacement of five louvers on the high service pump building and fourteen roof exhaust fans at the membrane process and clearwell blower buildings. The louver replacement required structural strengthening modifications to the existing CBS walls to meet hurricane wind loads, stucco repair, and exterior coatings.

Seacoast Utility Authority Hood Road Water Treatment Plant Louver and Exhaust Fan Replacement

Client Contact	Brent Weidenhamer, P.E. Director of Operations Seacoast Utility Authority 4200 Hood Road, Palm Beach Gardens, FL 33410 Phone: (561) 628-6175 Email: bweidenhamer@sua.com
Project Dates	October 2022 – October 2024
Responsible FDD Team Member	Jeffrey Holst and Stephen Fowler, PE
Key Subconsultants/Subcontractors	FDD and Wekiva
Completed on Time	Yes
Completed within Budget	Yes - $404,926.50
Change Orders Issued (if any)	$141,005.50 (Owner Requested Increase in Scope)

Riviera Beach Utility Special District Avenue C Repump Station Improvements

The project includes the survey, design, permitting, and construction of improvements at the potable water repump station including two new 50 HP booster pumps with VFDs and switch gear, instrumentation and controls, Data Flow system, chemical monitoring system, ground storage tank mixer, new emergency generator and ATS, new valves and piping, safety improvements to the existing ground storage tank, miscellaneous building improvements, and implementation of a temporary bypass pumping system. The project also includes the removal of a buried propane tank and all necessary restoration.

Riviera Beach Utility Special District Avenue C Repump Station Improvements

Client Contact	John A. Armstrong, P.E. Senior Utility Engineer City of Riviera Beach Utility Special District 600 West Blue Heron Boulevard Riviera Beach, FL 33404 Phone: (561) 845-3457 Email: Jarmstrong@rivierabeach.org
Project Dates	June 2019 – September 2021
Responsible FDD Team Member	Stephen Fowler, PE
Key Subconsultants/Subcontractors	HCE
Completed on Time	Yes
Completed within Budget	Yes - $1,425,941.24
Change Orders Issued (if any)	-$112,921.98 (unused allowance)

Riviera Beach Utility Special District Avenue U Repump Station Improvements

The project includes the survey, design, permitting, and construction of improvements at the Avenue U potable water repump station including new 100 HP booster pumps with VFDs and switch gear, instrumentation and controls, Data Flow system, chemical monitoring system, GST altitude valve repairs, new ATS and connection to the emergency generator, new valves and piping, safety improvements to the existing ground storage tank, miscellaneous building improvements, and implementation of a temporary bypass pumping system.

Riviera Beach Utility Special District Avenue U Repump Station Improvements

Client Contact	John A. Armstrong, P.E. Senior Utility Engineer City of Riviera Beach Utility Special District 600 West Blue Heron Boulevard Riviera Beach, FL 33404 Phone: (561) 845-3457 Email: Jarmstrong@rivierabeach.org
Project Dates	June 2019 – September 2021

Responsible FDD Team Member	Stephen Fowler, PE
Key Subconsultants/Subcontractors	HCE
Completed on Time	Yes
Completed within Budget	Yes - $984,653.98
Change Orders Issued (if any)	-$16,704.48 (unused allowance)

Seacoast Utility Authority Emergency Lift Station No. 88 Force Main Replacement

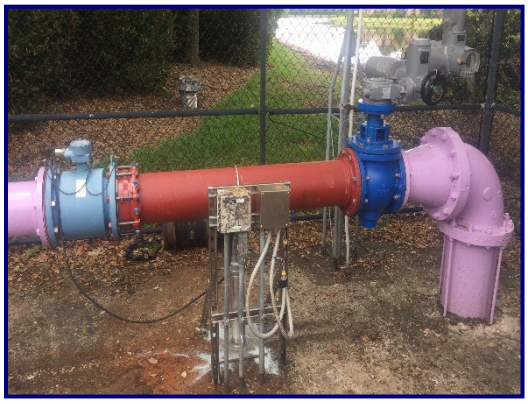
The project includes the survey, design, permitting, and construction of approximately 1,500 LF of 8" force main along Hood Road and the rehabilitation of Lift Station No. 88 including cleaning and recoating of the wet well, replacing the base plates, base elbows, riser piping, and all above-grade valves and piping. Also included is the disassembly and removal of the temporary force main and all restoration.

Seacoast Utility Authority Emergency Lift Station No. 88 Force Main Replacement

Client Contact	Brandon Selle, P.E. Chief Operations Officer Seacoast Utility Authority 4200 Hood Road, Palm Beach Gardens, FL 33410 Phone: (561) 628-6175 Email: bselle@sua.com
Project Dates	June 2020 – August 2021
Responsible FDD Team Member	Stephen Fowler, PE
Key Subconsultants/Subcontractors	K3
Completed on Time	Yes
Completed within Budget	Yes - $341,657.50
Change Orders Issued (if any)	$217,381.55 (Owner requested rehabilitation of the lift station pumping into the force main as a change order to the original scope)

Seacoast Utility Authority Reclaimed Water Meter Station Valve Replacements

The project included engineering and construction services for the replacement of an existing 6" Cla valve with a new 6" plug valve and electric actuator at the Old Palm reclaimed water meter station, including electrical and control connections from the existing control panel to the new valve actuator. The project also included engineering and construction services for the replacement of the existing 8" Cla valve with a new 8" plug valve and electric actuator at the Mirasol reclaimed water metering station, including electrical and control connections, from the existing control panel to the new valve actuator. The project involved integrating with the Owner's existing SCADA



system and operations network and was able to be constructed without interruption of the customers' reclaimed water service.

Seacoast Utility Authority Reclaimed Water Meter Station Valve Replacements

Client Contact	Brent Weidenhamer, P.E. Director of Operations Seacoast Utility Authority 4200 Hood Road, Palm Beach Gardens, FL 33410 Phone: (561) 628-6175 Email: bweidenhamer@sua.com
Project Dates	2017
Responsible FDD Team Member	Stephen Fowler, PE and Linwood Lee
Key Subconsultants/Subcontractors	HCE
Completed on Time	Yes
Completed within Budget	Yes - $18,575
Change Orders Issued (if any)	None

Riviera Beach Utility Special District Lift Station No. 41 Improvements

The project includes performing a hydraulic analysis of the lift station including installation of a Volucalc to record lifts station influent and effluent data in order to size the replacement pump, discharge piping, and valves. Improvements to the lift station include replacing base plates, base elbows, discharge piping, plug valves and check valves. The project also includes adding a bypass pump suction line through the wet well top slab, repairs to the wet well floor, and temporary bypass pumping including the MOT for the bypass system.

Riviera Beach Utility Special District Lift Station No. 41 Improvements

Client Contact	**John A. Armstrong, P.E.** Senior Utility Engineer City of Riviera Beach Utility Special District 600 West Blue Heron Boulevard Riviera Beach, FL 33404 Phone: (561) 845-3457 Email: Jarmstrong@rivierabeach.org
Project Dates	August 2020 – January 2021
Responsible FDD Team Member	Stephen Fowler, PE
Key Subconsultants/Subcontractors	HCE
Completed on Time	Yes
Completed within Budget	$153,981.00
Change Orders Issued (if any)	No

South Martin Regional Utility Wastewater Treatment Plant Safety Improvements

The project included the design, furnishing, and installation of several elevated aluminum platforms and stairways to provide the plant staff safe access to various areas and pieces of equipment for maintenance and operation. The team was able to overcome the challenges of designing and constructing these improvements in limited areas while keeping the facilities operable and accessible to the plant staff. The project also included the design of upgraded LED lighting and additional site lighting to be implemented later.

South Martin Regional Utility Wastewater Treatment Plant Safety Improvements

Client Contact	Stuart Trent, PE Director South Martin Regional Utility PO Box 395, Hobe Sound, FL 33475 Phone: (772) 546-6259 Email: strent@tji.martin.fl.us
Project Dates	2018
Responsible FDD Team Member	Stephen Fowler, PE, Linwood Lee, and Jose Reyes
Key Subconsultants/Subcontractors	HCE and C&W
Completed on Time	Yes
Completed within Budget	Yes - $97,856.85
Change Orders Issued (if any)	None

TAB #4: METHODOLOGY / APPROACH

4A - Planning

The FDD team has prepared a plan for performing the work in the City's required timeframe and budget while providing a quality product. The team has prepared not only a plan for performing the work as outlined in the RFQ, but also began evaluating alternatives.

The FDD team's plan for this project allows the City to complete this important project in the most efficient manner possible while meeting budget requirements.

4A1 – Well Design, Testing, and Drilling

The City desires to enhance utilization of the Upper Floridan Aquifer (UFA) to help address their increasing water demands. The UFA is primarily comprised of consolidated limestone and dolostone of variable porosity and discreet permeable zones. The UFA contains brackish to saline formation water and the water can most easily be extracted (pumped) from the permeable zones. Overlying the UFA are two hydrogeological units generally named the Surficial Aquifer System (SAS) and the Intermediate Confining Unit (Hawthorn Group). The SAS is primarily comprised of unconsolidated sand, shell, and limestone layers, and the Hawthorn Group consists of green, dense, and phosphatic-rich clays and marls. A transitional formation interval is encountered below the Hawthorn Group clays from a sandy/silty and less competent limestone to a more competent limestone/dolostone formation that is suitable for a UFA production well with formation water that will receive membrane treatment.

Different drilling methods are used to complete a production well into the UFA. A shallow (pit) casing is first set to a depth between 10 and 30 feet below land surface (bls). The pit casing provides ground stability for the drill rig as deeper boreholes are drilled. Mud-rotary drilling is necessary to drill through the unconsolidated material of the SAS; the base of which in the St. Lucie area is near a depth of 150 feet bls. During mud-rotary drilling, fluids (drilling mud) are introduced into the borehole to lubricate the drill bit, remove drilled rock cuttings from the borehole and create a "mud-cake" along the borehole wall to prevent hole collapse. A steel casing is then inserted into the borehole to the approximate base of the SAS and the annular space between the casing and borehole is filled with cement grout. The intent of this casing is to isolate the SAS from the underlying Hawthorn Group clays as drilling progresses.

A smaller drill bit is then inserted into the casing isolating the SAS and another borehole is extended below the SAS by the mud-rotary drilling method. At a minimum, the mud-drilled borehole is extended through the dense green clays of the Hawthorn Group. The base of the Hawthorn clays in the St. Lucie area is near 600 feet bls. For many (if not all) of the existing City's UFA wells in the JEA wellfield, the mud-drilled hole was extended significantly below the Hawthorn clays into the UFA to depths near 800 feet bls. Another smaller diameter casing is then inserted through the previously set SAS casing and to the base

of the borehole and the annular space is filled with cement grout. The intent of this casing is to keep the Hawthorn Group clays and the shallower sandy/silty UFA formation isolated from the more competent and productive UFA formation.

After both the unconsolidated SAS and the Hawthorn clays are isolated, methods are converted from the mud-rotary to the reverse-air drilling method. The reverse-air (open-circulation method) is a common and preferred method when drilling through the more competent formation encountered in the UFA. Reverse air drilling is accomplished by installing an airline supplying compressed air within the drill string, creating an airlift that facilitates removal of drill cuttings and formation water through the drill string for discharge at the surface. As drilling mud is not used and fluids are not re-circulated through the borehole, reverse-air is the optimal drilling method to obtain representative water quality and to evaluate the hydraulic characteristics of the formation intersected by the borehole.

A design approach, referred to as a "test-well design", includes a casing string set just below the Hawthorn clays and near the top of the transitional interval of the UFA where the sand/silt diminishes (and the formation becomes more competent) with depth. Reverse-air drilling is then employed to achieve optimal data collection of the shallow part of the UFA. After review of the drill cuttings, field water quality, specific capacity results with depth, and geophysical logging plots are performed, a setting depth for the final production casing will be determined. The capital cost and construction duration are greater with the "test-well design" approach, but it allows for an investigation of the shallowest part of the UFA using reverse-air drilling. If production intervals are present in the shallow UFA that do not produce unacceptable levels of sand and silt, this would result in the setting of a shallower production casing and optimizing the performance and water quality of the well. This information will then be used for the additional wells to be constructed, and a "standard-well design" can be employed. The standard design uses one less casing string compared to the "test-well design" with the final production casing being set and cemented within a mudded-hole. After the production casing is set, the reverse-air drilling method will be employed, and water-quality/hydraulic data will be collected within the open hole as drilling progresses.

OBJECTIVES FOR UFA WELLS

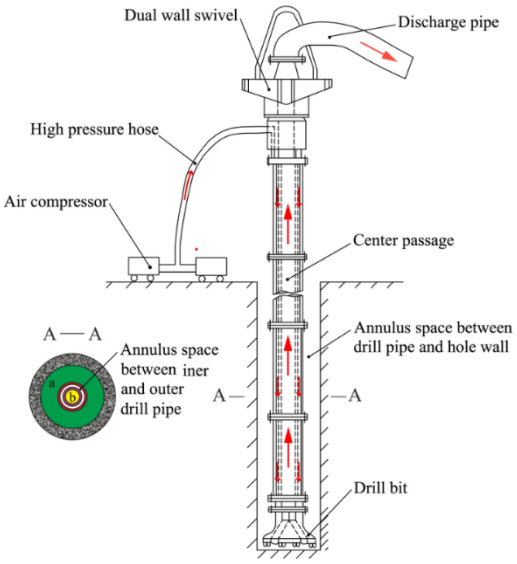
Several components were considered for the design of the Floridan Aquifer which include:

- The diameter of the final casing shall be adequate to accommodate appropriately sized pumps.
- The final casing shall consist of a material appropriate for resistance to corrosion of brackish Floridan Aquifer waters and shall be certified by the National Sanitation Foundation (NSF) to be acceptable for water supply.
- The open-hole interval within the Floridan Aquifer shall intersect competent and permeable strata with acceptable water quality.
- The Surficial Aquifer System, the Hawthorn Group and the Floridan Aquifer shall be isolated from each other by setting and cementing casings concentrically near the base of the Surficial Aquifer and near the base of the Hawthorn Group.
- The casings shall be appropriately cemented in place. Regulations require a minimum thickness of 2 inches for the cement sheath.

During well construction, data will be collected and interpreted to determine the geologic and hydrogeologic characteristics of the strata intercepted by the borehole. The data will be used to determine the optimal subsurface design.

Reverse Air Pilot Hole Drilling

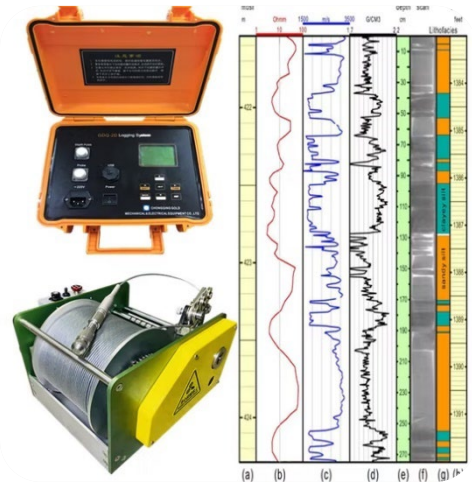
Reverse-air (open-circulation) is a common and preferred method when drilling through the more competent formation encountered in the UFA. During drilling, cuttings will be collected at 5-foot depth intervals, described by the onsite geologist, and summarized in a lithologic log. The water quality and hydraulic characteristics of the formation also will be frequently measured during drilling as described in the section below.



Reverse-Air Water Quality and Specific Capacity Testing

During pilot-hole drilling, samples of the reverse-air discharge fluids will be collected approximately every 10 feet for field analysis of: specific conductivity, TDS, chloride and pH. As drilling progresses, cuttings and formation fluids enter the drill stem from the drill bit located at the bottom of the borehole.

At each drill-rod connection, the Contractor will continue to circulate until cuttings are removed from the borehole and discharge waters are generally free of suspended solids. The reverse-air circulation will then be terminated, and the annulus outside the drill pipe string will be allowed to flow. Flowing conditions continued for a sufficient period of time allow flow rates and water levels in the manometer tube to generally approach stabilization. During this time, water quality samples will be collected for field analysis of specific conductivity, TDS, chloride, pH, iron, and hydrogen sulfide. The Contractor will then close the flow-port valve to shut-in the well to obtain approximate water levels under static conditions. This will provide the necessary data to calculate specific capacity with depth.



Geophysical Logging in Pilot Hole

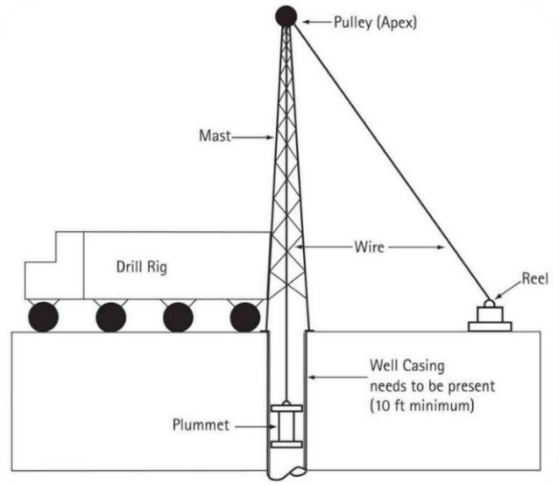
The Contractor will perform geophysical logging under static and dynamic conditions in the UFA. Geophysical logging will be performed in the pilot-hole to achieve multiple objectives including: correlating drill cuttings collected during drilling; identifying formation boundaries; correlating vertical geological offsets between nearby wells; and obtaining specific geologic and hydrogeologic data. This data will be used to identify transmissive intervals and assist in selecting optimum production zones.

Plumbness and Alignment Test

The Contractor will perform plumbness and alignment testing (P&A) of the upper ~100 feet of the final PVC casing. P&A testing will be conducted to verify that the inner casing plumbness and alignment complies with AWWA requirements. This test will also be included in the specifications to provide assurance that the wells are

sufficiently plumb should the City decide to install a submersible pump assembly in the future.

We will ensure that the results of the P&A testing indicate the final casings are compliant with applicable AWWA well construction standards.



An alignment test will be performed by lowering a "dummy" pipe with a total length of ~50 feet. The dummy pipe will consist of a 3-inch diameter steel pipe with three cylindrical rings. Each ring will have a diameter slightly smaller than the inside diameter of the well and will be approximately 12-inches in length. The rings will be located one at each end and one in the center of the 3-inch pipe. The dummy tool will be freely lowered with no impediments to 150 feet bls. These tests ensure that the well is plumb and aligned sufficiently to allow for proper installation of permanent submersible pumps.

WELL DEVELOPMENT

Borehole Jetting

The borehole jetting phase of development is designed to deliver a high velocity of water directly into the borehole with the use of a rotating jetting tool. Sediment dislodged from the jetting process is discharged from the well bore. This process will be continued as the jetting tool is slowly rotated and passed up and down the borehole from the base of the PVC casing to the total depth. After completing jetting, the Contractor will remove fill accumulated at the bottom of the open hole. A brief flow test will be performed after each phase of development.

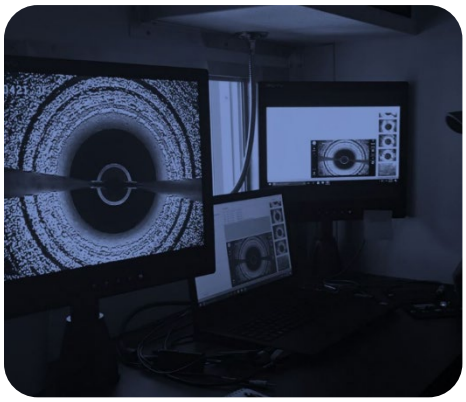
Pump Development

After performing jetting, the Contractor will connect a centrifugal pump in line with the temporary wellhead tee and resume development by pump surging. During pump development, sand content testing, silt density index (SDI) testing, field water quality testing and specific capacity testing will be performed on multiple occasions. Water levels will be continuously monitored during pump development and step drawdown testing will also be performed. Pump development will be considered complete when sand content is below 1 part per million (ppm) at the approximate design rate, and water quality and specific capacities are generally stable.

Step Drawdown Testing

After development is considered complete, a step drawdown pump test will be performed. The test will consist of multiple steps of increased pumping rates. Each step will be pumped at a nearly constant rate for approximately 2 hours. Prior to performing the test, a transducer will be installed in the well to monitor water levels. During testing, pump rates, water levels, sand content, SDI and field water quality will be regularly monitored and recorded. At the end of the test, pumping will be terminated, and the recovery portion of the test will begin. During recovery, water levels will be measured to observe the recovery rate until static conditions are achieved. A water quality sample will also be collected for laboratory analysis.

Downhole Video Survey



Following completion of step drawdown testing, the Contractor will perform a downhole video survey to inspect the condition of the production casing and open-hole production interval. The video survey on the down hole pass will be under static (non-flowing) conditions. On the up-hole pass, the video will be performed under dynamic conditions. The initial downward pass of the camera will consist of a downhole view, and the upward pass will consist of a sideview throughout the entire length of the open hole and casing string.

4A2 – Well Materials, Constructability and Value Engineering

The FDD team has already initiated portions of the planning process, including doing a preliminary layout of Well Sites F-21 through F-25 as shown on the following pages. We have also conducted a review of the well materials of construction, sizing, and constructability. One of the first items of construction will be the procurement of the casing materials for the wells. As discussed later in this section, this item is on the critical path of the construction schedule and the earlier this portion of the design can be completed, the quicker the project will progress.

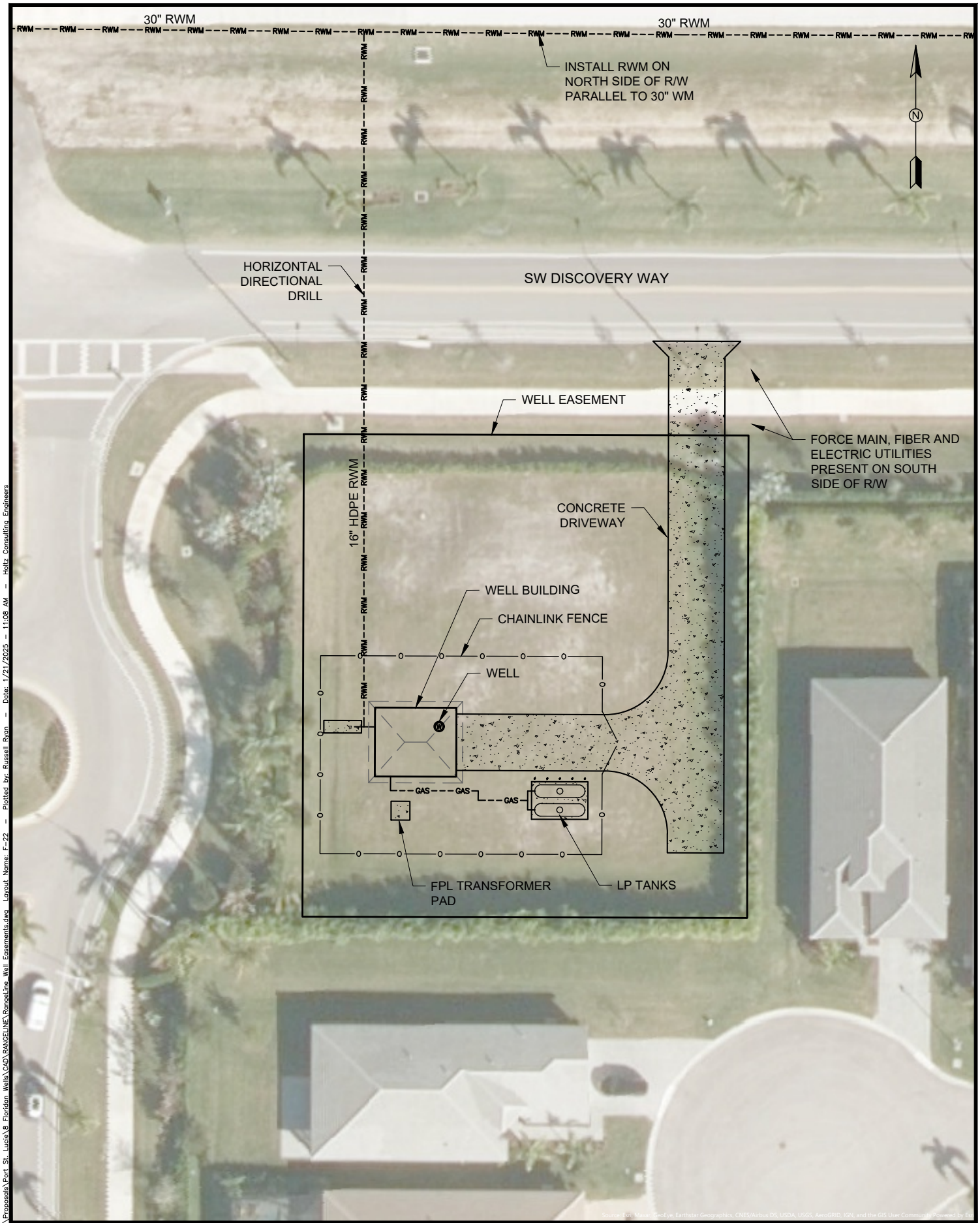
The FDD team has already started planning material selection and addressing constructability issues for this project to ensure critical path items are addressed.

In review of the RFQ our team took into consideration the target well design capacity, as well as the existing PSL UFA well designs and known UFA well characteristics. From there we formulated our design to have the ability to achieve the target performance goal of 1,840 gpm with margin, and at an acceptable uphole velocity as to minimize the potential of elevated SDI. Additionally, we considered accommodating the existing pump design, constructability of the well and availability of the casing materials. Finally, having considered all technical information; the overall cost of the well was considered in a final casing material selection and well design that is of highest value for this application.

As suggested in the RFQ, a 24" diameter well would satisfy the design criteria, however upon further detailed analysis, this diameter final casing may be larger than necessary and increases total cost of the wells without apparent benefit. The City has previously sole-sourced Afton stainless steel vertical turbine pumps. The majority of the existing pumps are the Afton 12x12 GSV 3-stage pump. These pumps are recommended to be housed inside no less than a 15.2" inside diameter casing in order to allow proper flow/cooling per the pump manufacturer. Additionally, a 3-5 feet per second maximum uphole velocity is recommended to reduce scouring effects in the open borehole during pumping and to minimize SDI. A 16" borehole affords slightly over 1,850 gpm at an uphole velocity of 3 fps, and at over 3,000 gpm the uphole velocities remain at 5 fps or less.

PORT ST. LUCIE UTILITY SYSTEMS DIVISION RANGELINE WTP FLORIDAN WELLS	WELL F-21 SITE PLAN	HOLTZ CONSULTING ENGINEERS, INC. 607 SW ST. LUCIE CRESCENT, SUITE 103 STUART, FLORIDA 34994 PH. (772) 919-4905 CERTIFICATE OF AUTH. No. 26960	FIG. 1

Drawing Name: F:\Proposals\Port St. Lucie\8 Floridan Wells\CAD\RANGELINE\RangeLine_Well Easements.dwg Layout Name: F-21 – Plotted by: Russell Ryan – Date: 1/21/2025 – 11:08 AM – Holtz Consulting Engineers



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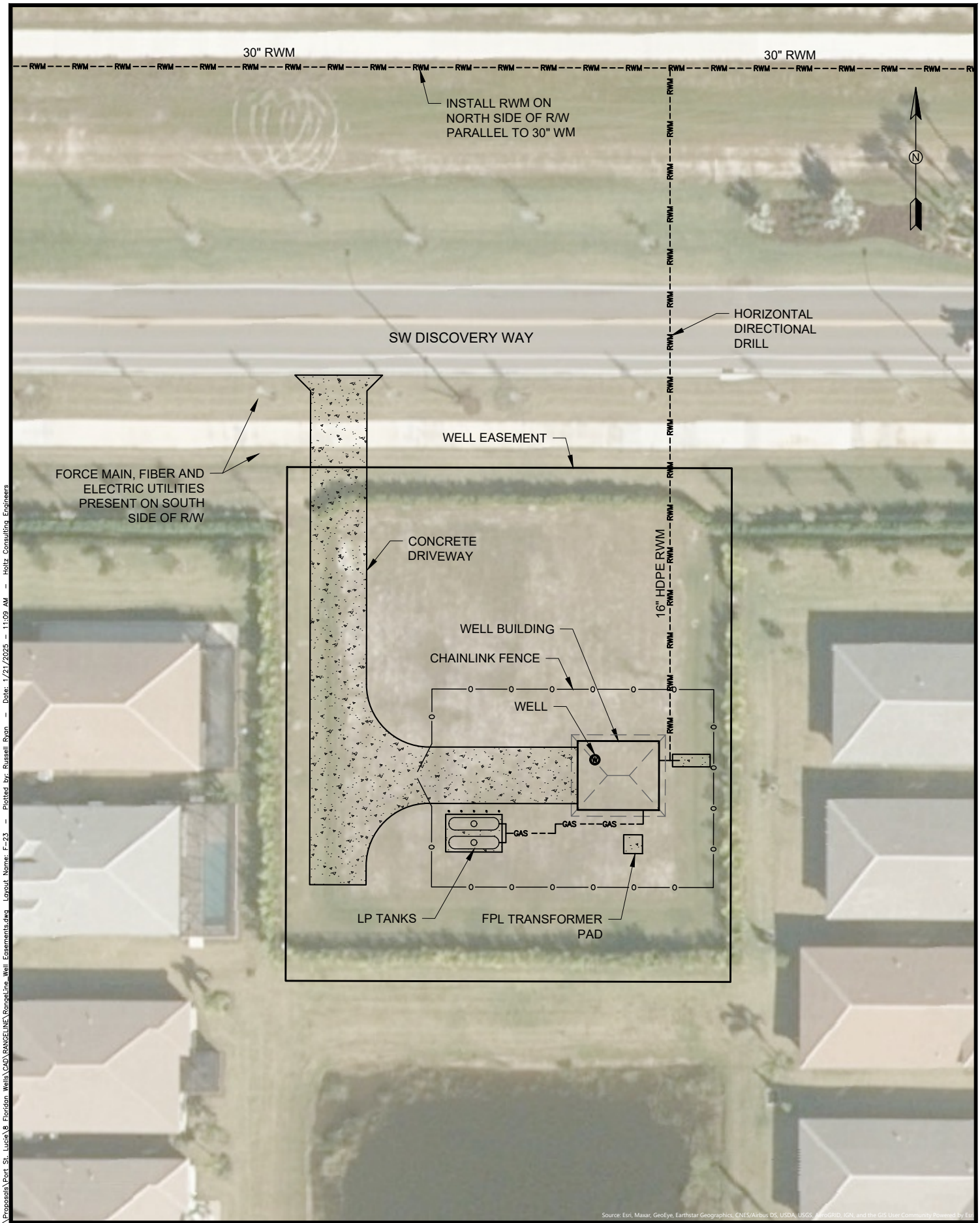
PORT ST. LUCIE UTILITY SYSTEMS DIVISION RANGELINE WTP FLORIDAN WELLS	WELL F-22 SITE PLAN	HOLTZ CONSULTING ENGINEERS, INC. 607 SW ST. LUCIE CRESCENT, SUITE 103 STUART, FLORIDA 34994 PH. (772) 919-4905 CERTIFICATE OF AUTH. No. 26960	FIG. 2



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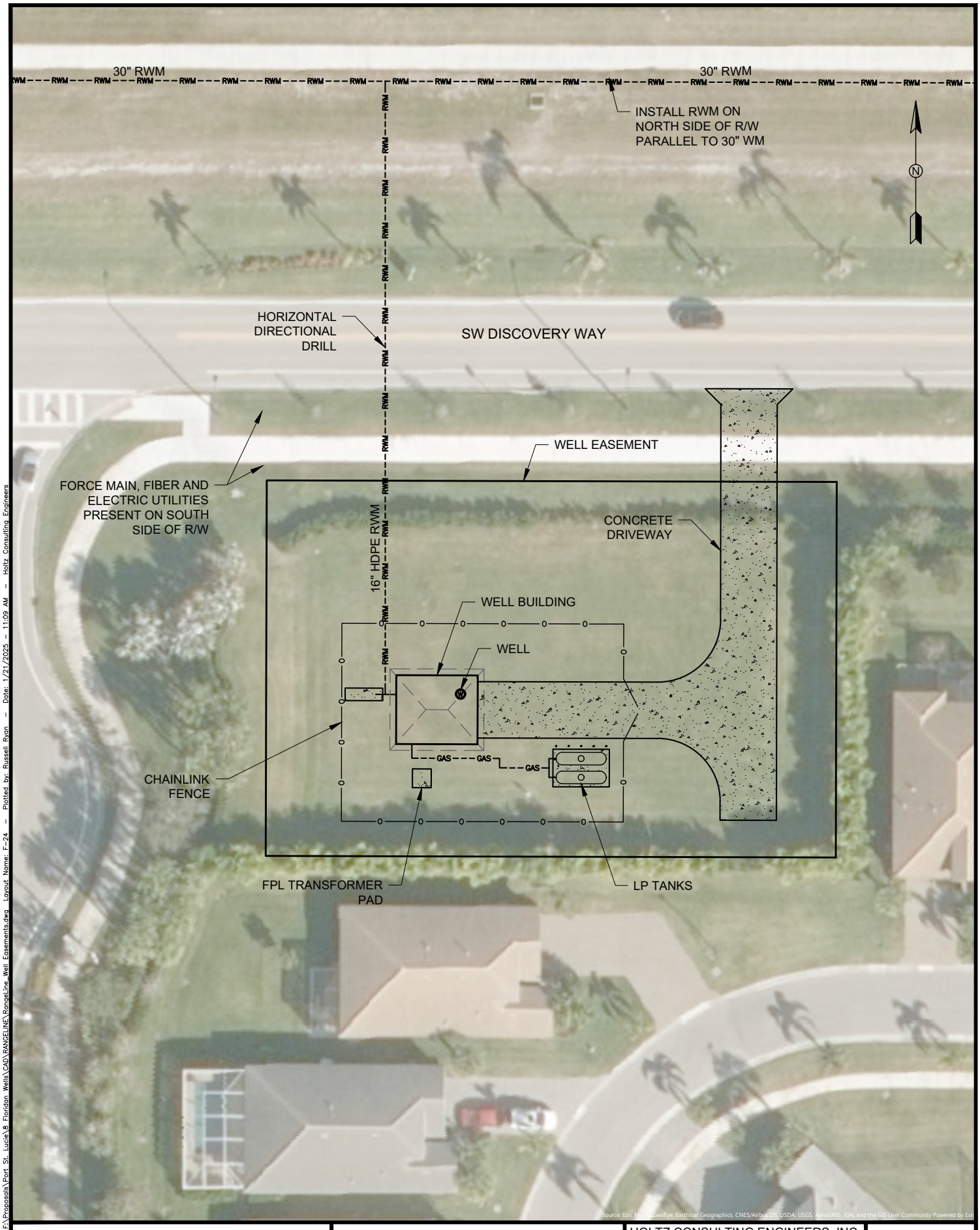
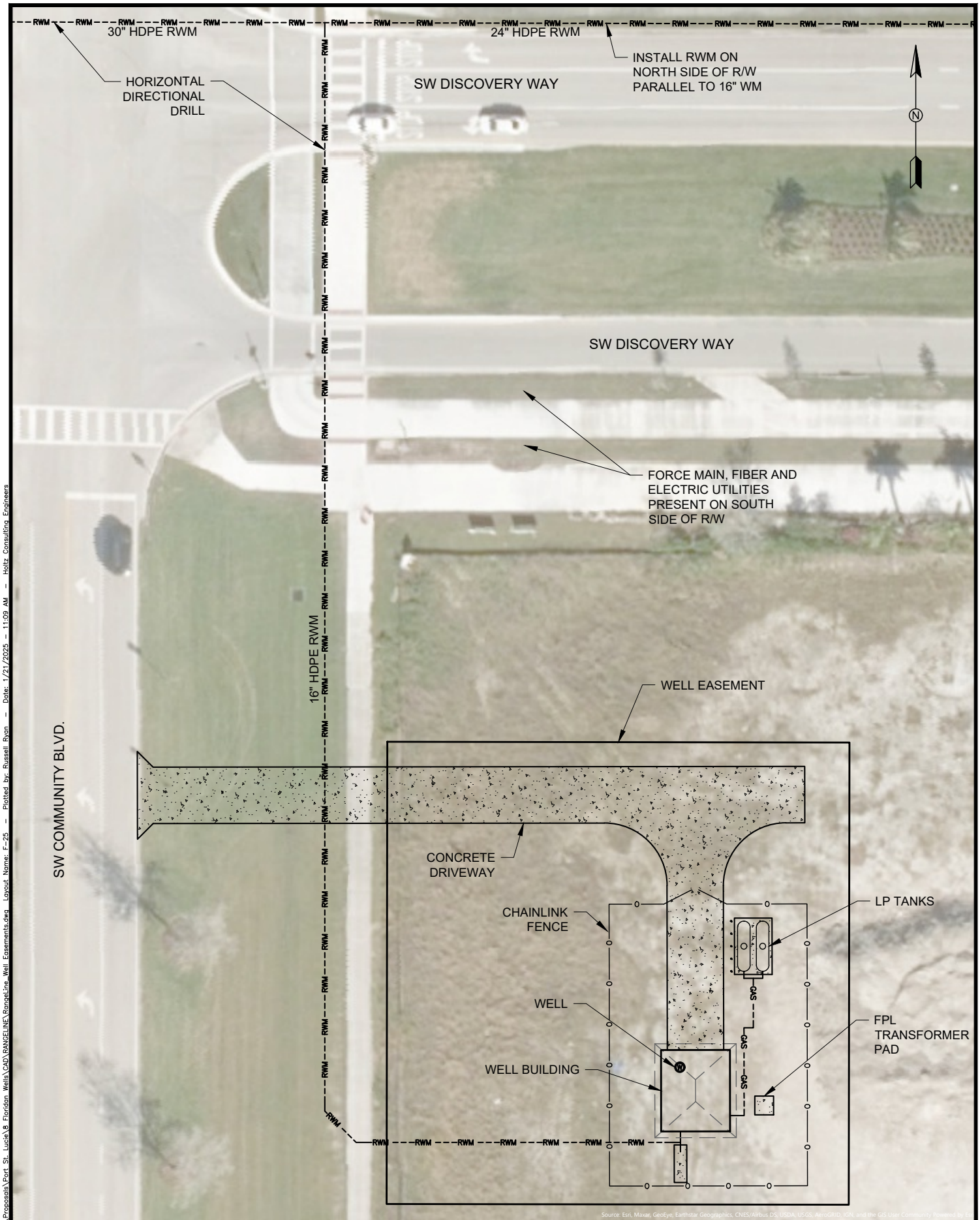
PORT ST. LUCIE UTILITY SYSTEMS DIVISION RANGELINE WTP FLORIDAN WELLS	WELL F-23 SITE PLAN	HOLTZ CONSULTING ENGINEERS, INC. 607 SW ST. LUCIE CRESCENT, SUITE 103 STUART, FLORIDA 34994 PH. (772) 919-4905 CERTIFICATE OF AUTH. No. 26960	FIG. 3



Drawing Name: F:\Proposals\Port St. Lucie\8 Floridan Wells\CAD\RANGELINE\RangeLine_Well Easements.dwg Layout Name: F-24 – Plotted by: Russell Ryan – Date: 1/21/2025 – 11:09 AM – Holtz Consulting Engineers

PORT ST. LUCIE UTILITY SYSTEMS DIVISION RANGELINE WTP FLORIDAN WELLS	WELL F-24 SITE PLAN	HOLTZ CONSULTING ENGINEERS, INC. 607 SW ST. LUCIE CRESCENT, SUITE 103 STUART, FLORIDA 34994 PH. (772) 919-4905 CERTIFICATE OF AUTH. No. 26960	FIG. 4



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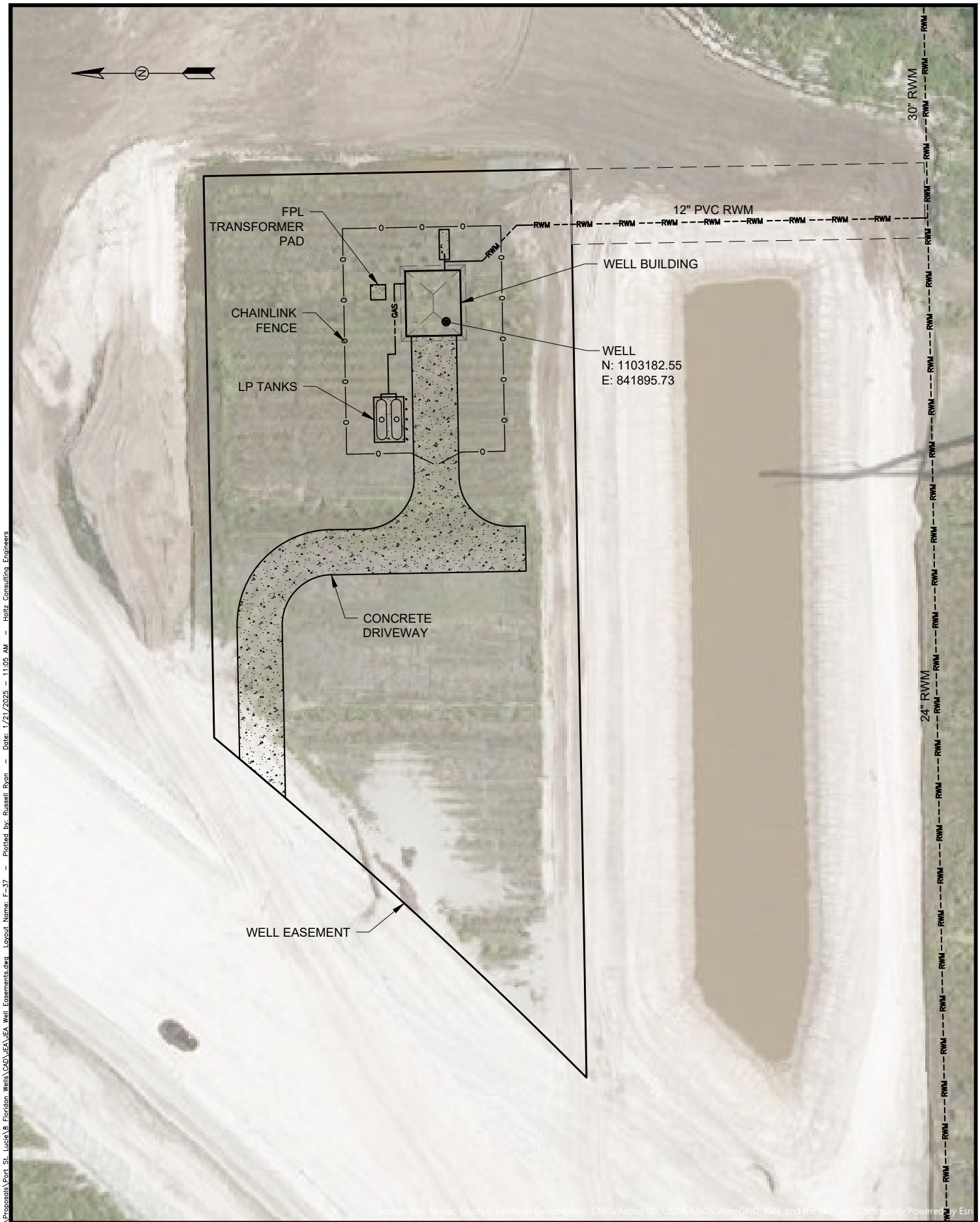
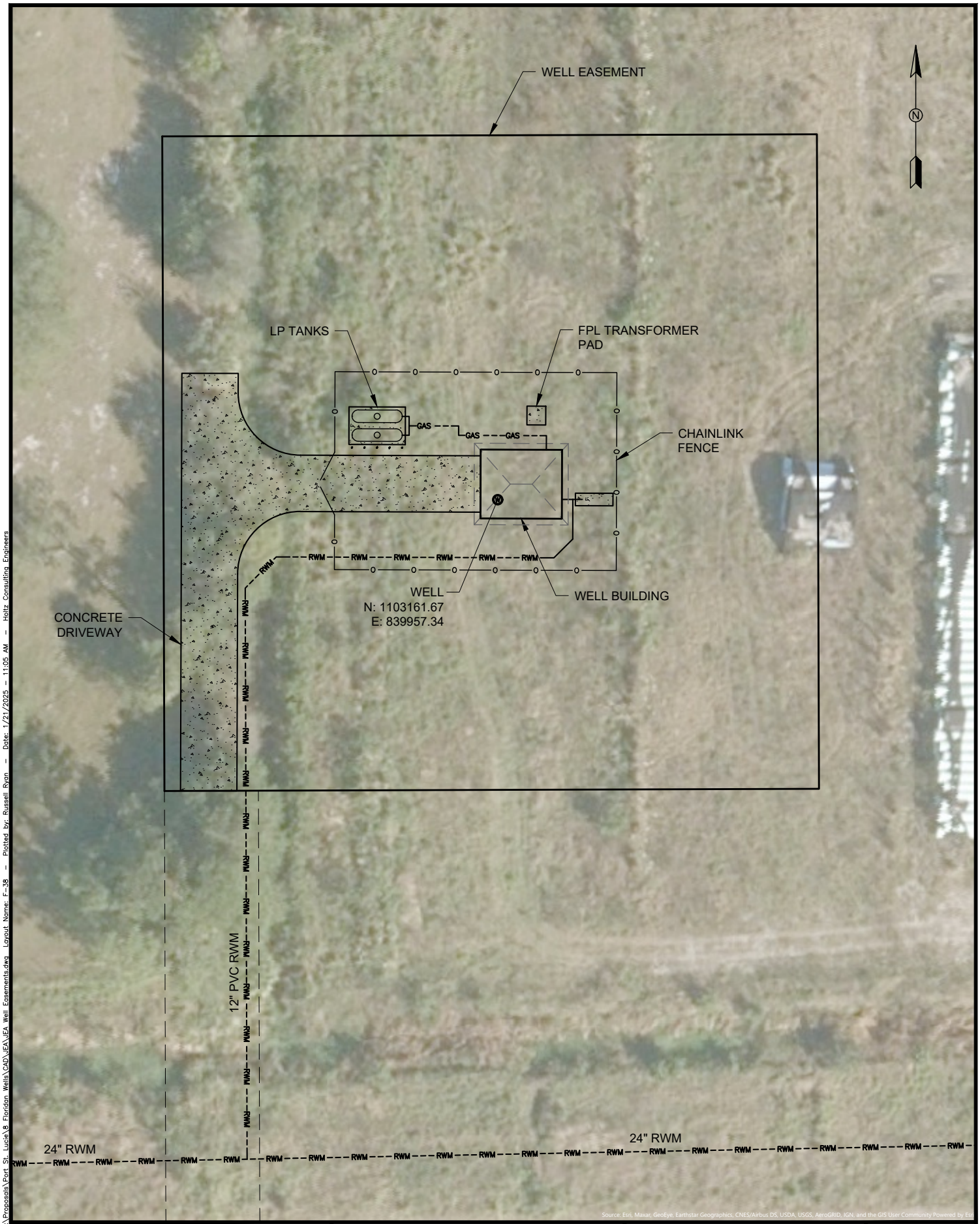
PORT ST. LUCIE UTILITY SYSTEMS DIVISION RANGELINE WTP FLORIDAN WELLS	WELL F-25 SITE PLAN	HOLTZ CONSULTING ENGINEERS, INC. 607 SW ST. LUCIE CRESCENT, SUITE 103 STUART, FLORIDA 34994 PH. (772) 919-4905 CERTIFICATE OF AUTH. No. 26960	FIG. 5



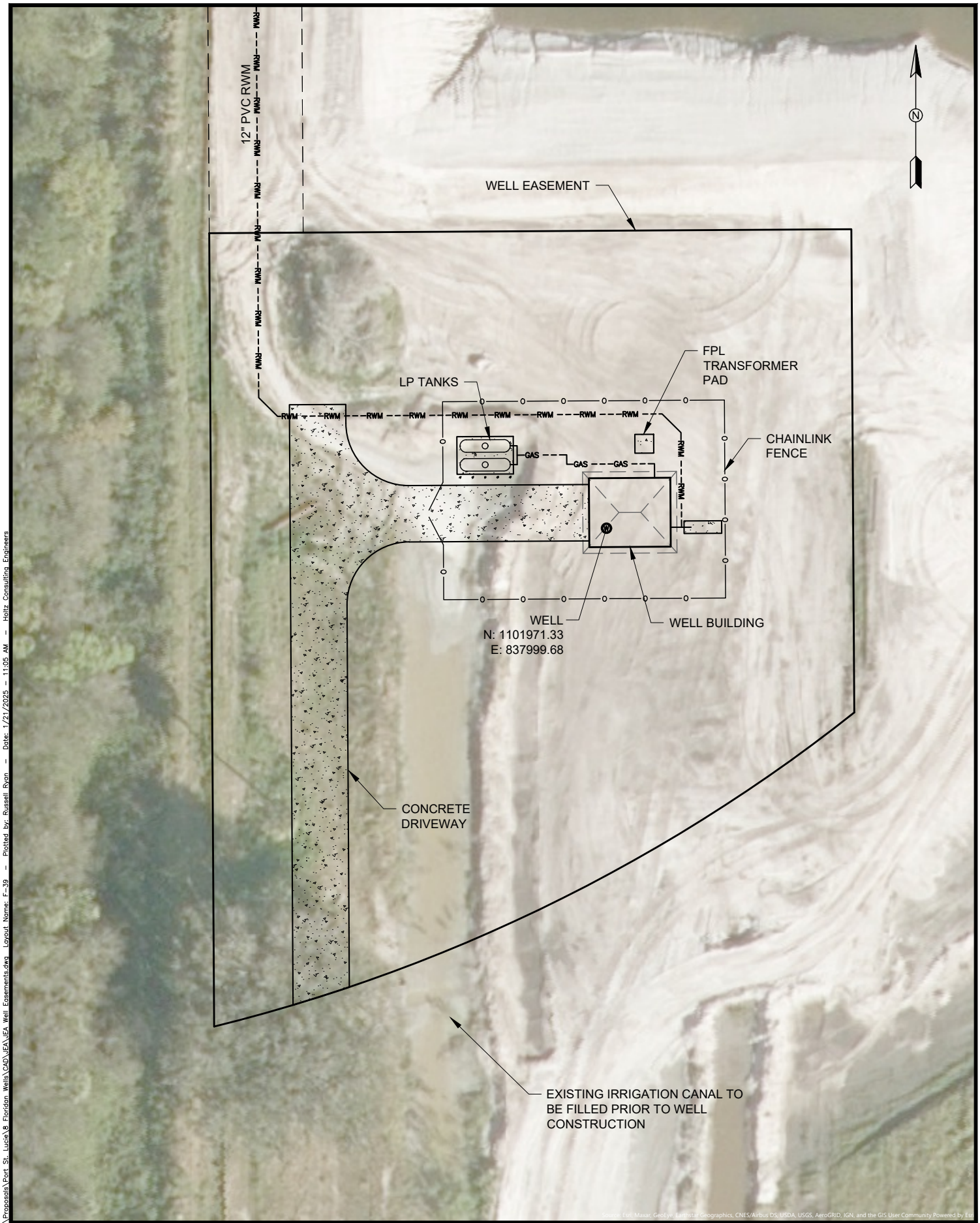
PORT ST. LUCIE UTILITY SYSTEMS DIVISION JEA WTP FLORIDAN WELLS	WELL F-37 SITE PLAN	HOLTZ CONSULTING ENGINEERS, INC. 607 SW ST. LUCIE CRESCENT, SUITE 103 STUART, FLORIDA 34994 PH. (772) 919-4905 CERTIFICATE OF AUTH. No. 26960	FIG. 6

Drawing Name: F:\Proposals\Port St. Lucie\8 Floridan Wells\CAD\JEA\JEA Well Easements.dwg Layout Name: F-37 – Plotted by: Russell Ryan – Date: 1/21/2025 – 11:05 AM – Holtz Consulting Engineers



Drawing Name: F:\Proposals\Port St. Lucie\8 Floridan Wells\CAD\JEA\JEA Well Easements.dwg Layout Name: F-38 – Plotted by: Russell Ryan – Date: 1/21/2025 – 11:05 AM – Holtz Consulting Engineers

PORT ST. LUCIE UTILITY SYSTEMS DIVISION JEA WTP FLORIDAN WELLS	WELL F-38 SITE PLAN	HOLTZ CONSULTING ENGINEERS, INC. 607 SW ST. LUCIE CRESCENT, SUITE 103 STUART, FLORIDA 34994 PH. (772) 919-4905 CERTIFICATE OF AUTH. No. 26960	FIG. 7



PORT ST. LUCIE UTILITY SYSTEMS DIVISION JEA WTP FLORIDAN WELLS	WELL F-39 SITE PLAN	HOLTZ CONSULTING ENGINEERS, INC. 607 SW ST. LUCIE CRESCENT, SUITE 103 STUART, FLORIDA 34994 PH. (772) 919-4905 CERTIFICATE OF AUTH. No. 26960	FIG. 8

Drawing Name: F:\Proposals\Port St. Lucie\8 Floridan Wells\CAD\JEA\JEA Well Easements.dwg Layout Name: F-39 – Plotted by: Russell Ryan – Date: 1/21/2025 – 11:05 AM – Holtz Consulting Engineers

With the understanding that a borehole diameter and casing inside diameter of 16" would be technically sufficient, the known final casing depths and total depths of the existing wells were considered. With the apparent depth of the top of the UFA being less than 1,000' deep and the diameter of the final casing not needing to be as large as 24" diameter, a PVC final casing material began to emerge as a top option. We considered the advantages and disadvantages of other final casing materials such as FRP and stainless steel. However, the advantages of these materials simply are not founded considering the dynamics of these wells and cost of the material. FRP or a high-grade stainless steel final casing may be more feasible if the casing sets were anticipated to be considerably deeper, or other very specific requirements were necessary.

Constructability of the wells was also considered in the well design process. In addition to the final casing, components such as diameters of the telescoping steel construction casings, availability of the construction casings, annular spacing between casings, cement volumes and tooling (drill bit diameters and other bottom hole drilling assemblies) were evaluated to maximize the potential for construction of a highly successful well while respecting cost and time to the City.

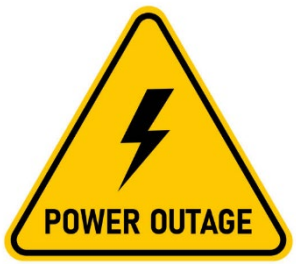
In consideration of all the above, a final casing diameter of 18" accommodates all design criteria with comfortable margin. Specifically, C900/Certa-Lok NSF rated PVC in 18" diameter at SDR18 has a 17.3" inside diameter which easily accommodates the pump and will allow for a nominal 17" diameter open hole interval. This PVC material and pipe connection design has long been utilized throughout the industry for this application and fits well into our well constructability and overall cost analysis. We believe this size and material provides the best overall value for this application.

4A3 – Permitting

There are several permits that will have to be obtained for the construction of the various aspects of this project. Please refer to Section 4C - Coordination with the City for a detailed description of the required permits for the City for this project.

4A4 – Well Electrical Neighborhood Impact, Reliability, and Value Engineering

The City has historically constructed a stand-by generator at each of the Floridan well sites. Each generator is located inside a CBS building and utilizes liquid propane stored in two exterior, above-grade tanks for fuel. These generators provide power in case their primary FPL power is unavailable. Liquid propane is used instead of traditional diesel as a diesel spill could contaminate the groundwater supply and is not in accordance with the wellfield protection act.



Two options that may be considered are providing emergency standby power from either the new Rangeline WTP or increasing the size of the generator at a well site and using it to power that well and the well adjacent to it. The first option would require the proposed standby generators at the new Rangeline WTP to be sized to power the Floridan wells supplying the facility. These generators will provide 480V, three phase power; matching the primary power provided by FPL. A step-

up transformer would be installed at the WTP increasing the power from 480V to 4160V. 5kV cable would be installed from the Rangeline WTP to each well site. A step-down transformer taking the power back from 4160V to 480V would be constructed at each well site. The voltage drop from the Rangeline WTP to the wells located further away from the plant is too great for 480V power thus requiring 4160V power. Since it is being proposed the Floridan wells communicate with the plant's SCADA system via fiber optic, a parallel PVC conduit for the 4160V power could be installed simultaneously with the fiber optic conduit or the fiber optic conduit could be upsized and both the fiber optic and power cables installed in the same conduit. A generator receptacle would also be installed at each wellsite so a portable generator could also provide emergency power.

The benefits of this option include:

- Fewer generators to maintain, test, and operate
- Less impact to neighbors from noise resulting from operating generators
- Commonly located generator fuel storage tanks are easier to keep full after storm events
- Smaller well buildings would be required

Some of the potential negative consequences of this option include:

- Common generator and generator fuel system create a single point of failure that could disrupt standby power to all the wells

The second option would be to size a generator located at one of the well sites large enough to power two wells. Power cable and conduit would be constructed between these wells. The benefits of this option include:

- Fewer generators to maintain, test, and operate
- Less impact to neighbors from noise resulting from operating generators at every other well
- Smaller well buildings would be required at every other well

The FDD team has experience with both of these options. Below outlines a few examples of such applications:

- HCE was the lead consultant for the study, design, and construction of a 4160V emergency power system for the Seacoast Utility Authority Hood Road Wellfield. The project was divided into phases and included two new 500KV generators, step-up and step-down transformers, buried conduit and conductors for fifteen (15) production wells. FDD was the general contractor for the installation of portions of the transformers and conduits.
- HCE is the prime firm and C&W Engineering is the electrical subconsultant for the replacement of seven step-down transformers and one step-up transformer at the Seacoast Utility Authority's Palm Beach Gardens wellfield. This project is being implemented via the design-build method.
- HCE was the lead engineer with C&W Engineering as the electrical subconsultant for a project for the Village of Palm Springs that included the design and construction oversight for a generator located at a supply well that also provided power for an adjacent well.
- C&W Engineering recently completed a study for South Martin Regional Utility for various potable water supply well electrical hardening including providing generators at centralized locations that would serve multiple wells.

4A5 - Raw Water Main Design Approach

General

Our team understands the importance of providing the City with cost-effective design-build delivery for the raw water main to connect the new Floridan wells to the Rangeline WTP. We are committed to ensuring that each aspect of the project is thoroughly evaluated and the recommendations provide the most efficient, reliable system possible. The preliminary design analysis will include an evaluation of the pipe route, pipe size, pipe and valve materials, construction methods, scheduling as well as other components of the project. The analysis will compare options available for each aspect of the project and provide a cost comparison of the options. The design-build team will present the options and associated costs to the City and work with the City in selecting the final design parameters.

During the design phase, our team will conduct internal constructability reviews and value engineering analysis to ensure minimal construction change orders and that the most cost-effective design approach is being implemented. The designers will work hand in hand with the experienced contractors on the team to ensure that the design approach is reasonable and constructable. In particular, the contractors on the team will review the design of the pipeline in the developed road right-of-way including major trenchless road crossings.

Our team also understands that schedule is of utmost importance and must account for the construction of the wells along with the raw water main, and that the timing of each must be considered. For example, portions of the raw water main must be constructed prior to the wells to accommodate disposal of water resulting from the development of these wells.

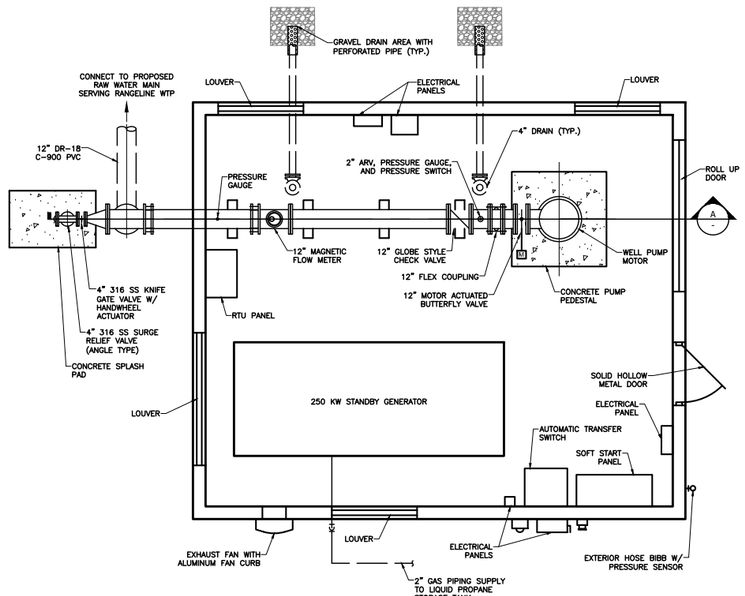
The following is a brief description of the analysis that the FDD team will provide for the major aspects of the project.

Pipeline Route

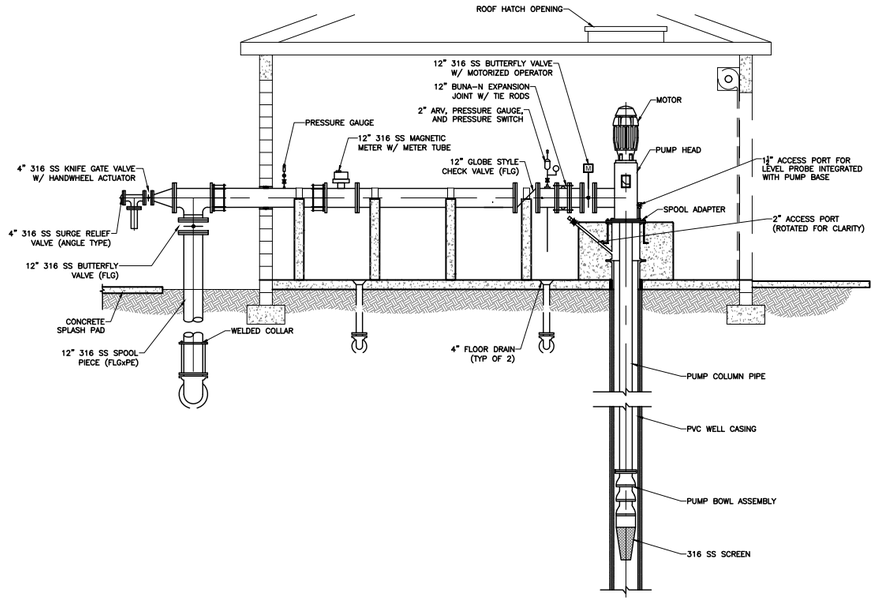
The most cost-effective pipeline route includes constructing the pipeline and conduit within public rights-of-way and existing City easements. This eliminates the costs and time required to obtain additional easements or property. In addition, the route selected should have minimal road crossings and impacts to paved areas which can be expensive to restore. A preliminary layout of the pipeline is provided on the following page.

The FDD team will provide the City with the most cost and schedule-effective pipe route and installation for the proposed raw watermain.

The proposed well site easements are located adjacent to the SW Discovery Way right-of-way on the south side. This provides a direct route between the well sites and the Rangeline WTP, which is also adjacent and to the south of SW Discovery Way. However, based on a preliminary review of the site



TYPICAL WELL ENCLOSURE LAYOUT
NOT TO SCALE



A — SECTION
NOT TO SCALE

REV	DATE	REVISIONS	BY

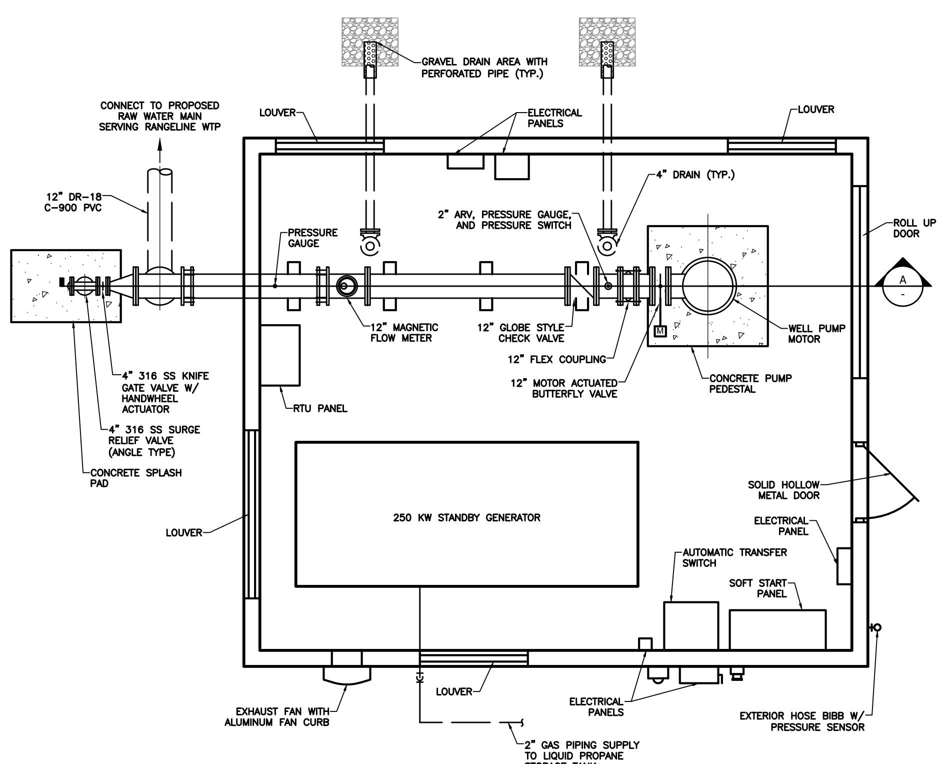
VERIFY SCALE
BAR IS EQUAL TO ONE INCH ON ORIGINAL DRAWING
0 — 1
ADJUST ALL SCALED DIMENSIONS ACCORDINGLY

PORT ST. LUCIE UTILITY SYSTEMS DIVISION
RANGELINE WTP FLORIDAN WELLS

RAW WATER MAIN LAYOUT
(PRELIMINARY)

HOLTZ CONSULTING ENGINEERS, INC.
607 SW ST. LUCIE CRESCENT, SUITE 103
STUART, FLORIDA 34994
PH. (772) 919-4905
CERTIFICATE OF AUTH. No. 26960

FIG. 1



TYPICAL WELL ENCLOSURE LAYOUT
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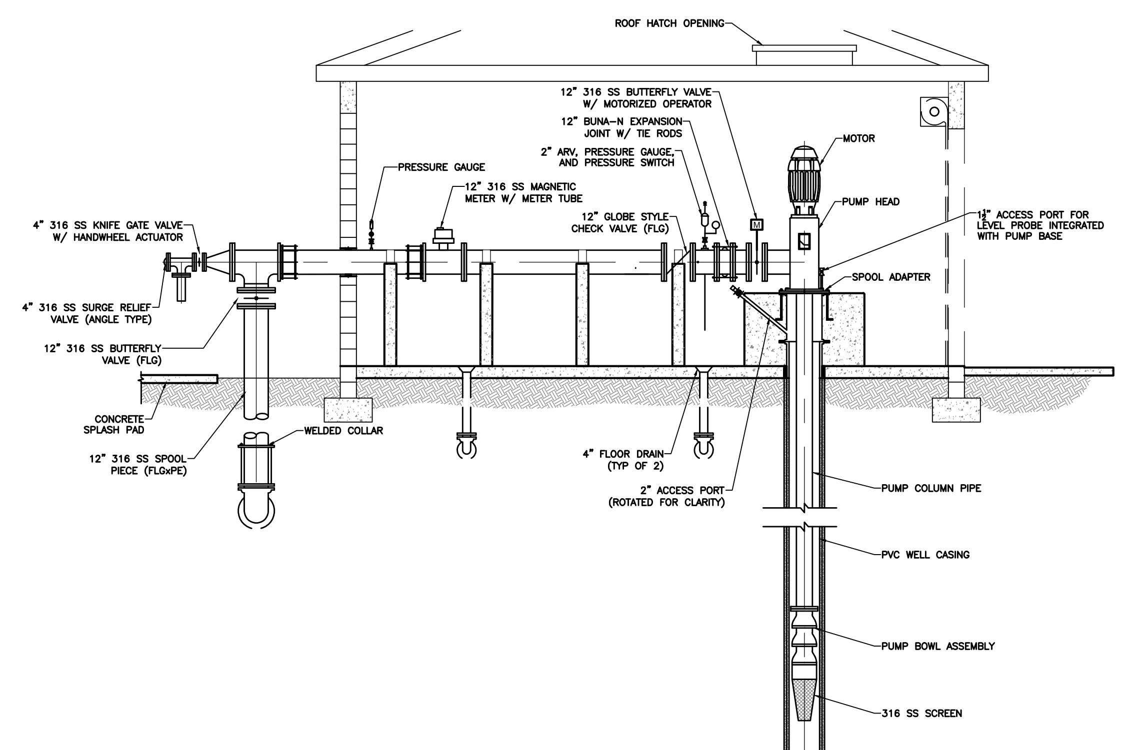

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PORT ST. LUCIE UTILITY SYSTEMS DIVISION
JEA WTP FLORIDAN WELLS

RAW WATER MAIN LAYOUT
(PRELIMINARY)

HOLTZ CONSULTING ENGINEERS, INC.
607 SW ST. LUCIE CRESCENT, SUITE 103
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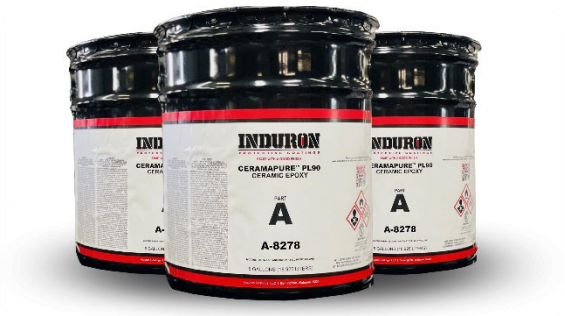
FIG. 2

conditions and existing utilities, it appears that the north side of the right-of-way will be more conducive for installation of the raw water main. Existing force mains, fiber optic, natural gas, and electrical utilities have already been installed on the south side of the roadway. As a result, connection of each of the well sites to the raw water main will require crossing the road with a horizontal directional drill (HDD).

Most of the route along SW Discovery Way has a 150' wide right-of-way with residential developments on each side of the road. The right-of-way is sized to accommodate a four-lane parkway and large shared use paths / sidewalks on each side of the street. Currently, the roadway west of SW Community Dr. is only two-lane with lanes on the south side and infrastructure to accommodate two additional lanes on the north side. As indicated previously, the proposed raw water main would likely encounter less utilities and complement the water main on the north side of the right-of-way. Due to the openness of the north side of the right-of-way, open trench construction would be possible with minimal disturbance to landscaping and sidewalks. Also, there are no existing driveways into the developments located north of the of the right-of-way west of SW Community Dr., making open trench installation a viable option along most of the route. Alternatively, constructing the raw water main via deep horizontal directional drills would allow the pipe to be installed at depths that would not typically be encountered by future utilities installations with open-cut methods and could provide additional protection of this vital pipeline. There will not be future connections to this main necessitating it to be installed at shallow depths. The project team will explore the costs and schedule impacts of both open trench installation and HDD during the design process.

Pipeline Size and Materials of Construction

The proposed wellhead piping is anticipated to be 12" diameter similar to other Floridan wells operated by the City. However, the proposed raw water main will be larger in size (16" to 30") as it will need to convey water from multiple wells through a single pipeline to the proposed Rangeline WTP while also minimizing head loss to pass through the filters at the head of the WTP. Based on preliminary calculations, the raw water main size is generally 16" diameter for one well, 24" diameter for two wells, and 30" diameter for three plus wells connected to the system at typical well flow rates. These calculations are based on preliminary parameters of not exceeding 100 psi at the furthest well and connection pressure of 60 psi at the Rangeline WTP. The 60 psi may be conservative and is based on the required pressure to force the raw water through fowled cartridge filters. It also assumes future flow from another more southern raw water main header for future raw water wells if the Rangeline RO plant is expanded.



The pressure pipe for this project is anticipated to be either polyvinyl chloride (PVC) or high-density polyethylene (HDPE). Both HDPE and PVC pipe materials are resistant to the high chlorides found in the UFA water. The fittings would be ductile iron with a Ceramapure PL90 ceramic epoxy coating. This coating is compatible with UFA water and is NSF61 approved. Since HDPE pipes have much thicker walls than ductile iron, larger nominal diameter HDPE pipes are required if an inside diameter similar to a PVC pipe is desired. Initial pipe sizing used HDPE pipes, therefore, equivalent sizing with PVC

pipe may result in a different size along some portions of the route. Detailed calculations will be performed to verify the pipeline sizing and materials. Since pipeline prices are constantly fluctuating, a detailed analysis will need to be performed during the preliminary design phase to verify which pipe material would be the most cost efficient for this project.

Trenchless Installation Methods

The proposed pipeline route will require the crossing of some heavily trafficked or recently constructed roads that would not be advisable to be open cut or trenched across. These roads include a crossing of SW Community Drive and multiple crossings of SW Discovery Way for well and WTP connections. The desired option for these road crossings will be HDD. There may be other areas of the project, outside of the paved areas that HDD may be proposed due to reduce impacts to existing infrastructure or landscaping.

Our team has extensive experience with the design and construction of HDD, including in the City of Port St. Lucie. The two-plus mile, 24" Glades Tradition Reuse Water Main was designed and constructed by members of this team, which included over 3,000 LF of HDD beneath multiple canals and the SW Tradition Boulevard right-of-way.

The FDD team brings to the City extensive HDD experience and knowledge.

While it's understood that road crossings will be installed using HDD, other areas of the project will be reviewed to ensure the most cost-effective design approach is utilized. Our team will provide a detailed comparison of HDD vs. open cut, including a summary of costs, and pros and cons of each option. Existing utilities will require thorough evaluations of the existing conditions to ensure that there is adequate space for layout of the equipment and installation of the piping. Our team includes experienced contractors to verify that the most cost-effective approach is utilized throughout the project.

Value Engineering

The design-build team will conduct internal value engineering reviews during the preliminary engineering development as well as at the draft and final design stages. The intent of these reviews will be to ensure that the most cost-effective project approach is provided to the City. With experienced contractors on our team, these reviews will result in a direct benefit to this project. For this project, value engineering reviews will include, but not be limited to, the following:

- Pipe Route
  - Ensure selected pipe route is most cost-effective
  - Minimize pavement/sidewalk restoration
  - Minimize permitting agency costs by route selection
  - Evaluate crossing over or under existing utilities

- Pipe Size
  - Verify hydraulic calculations to optimize pipe size

- Piping Materials
  - Polyvinyl chloride pipe (HDPE)
  - High density polyethylene pipe (HDPE)

- Pipe Installation Methods
  - Open cut with 20' PVC sections installed within the trench
  - Open cut with longer lengths of HDPE fused along the trench and lowered into the trench

- Road Crossing Methods
  - Horizontal Directional Drill

Pipeline Construction Sequence

The construction timeline of the pipeline will be considered key to the overall project success. While the pipeline will connect each of the proposed Floridan wells for the Rangeline WTP, along the SW Discovery Way corridor, their use for development of the well must also be considered.

It is recommended that the raw water main be constructed in phases, starting from the proposed WTP site. As the proposed well sites are developed, disposal of water during the development process must be considered. Each of the sites are in built-out areas, leaving nowhere to dispose of this well development water. The most logical discharge locations to dispose of this water are the dry retention areas located at the Rangeline WTP site, which would require a pipeline connection to be available from the well sites. Otherwise, the development water must be collected and hauled off-site, which would be cost-prohibitive. Therefore, it is proposed to initially permit and construct the raw water main connecting to the first two well sites, F-22, and F-23. The remainder of the raw water main can be permitted and constructed in a second phase, staying ahead of the well construction on the other proposed sites throughout the corridor. The main would be disinfected towards the end of the project when the new Rangeline WTP is ready for the raw water as the bacteriological test results are only valid for 60 days.

4A6 – Tax Savings

Owner Direct Purchase (ODP) of Materials

The purchasing of construction materials directly by the City can save the cost of sales tax as the City is a tax-exempt entity. During the development of the design-build pricing, the Contractor would submit the cost proposals from the material suppliers to the City. The City would issue a purchase order directly to the suppliers for the amount of the proposal minus the sales tax and would issue a deductive change order to the Contractor for the price with tax included. This method reduces the risk assumed by the City because the Contractor is responsible for competitively pricing the materials, ensuring that the materials meet the requirements of the contract documents, and that the quantity of the materials is correct and coordinating the timely delivery of materials to the project site. This method works best with large equipment/material packages/orders. Some items that may work for ODP include:

- HDPE Raw water main
- PVC Raw water main, fittings, and valves

- Well steel casings
- Well PVC final casing
- Generators
- Control Panels and Instrumentation

The FDD team is experienced with the ODP procedure. We are currently working on a design-build project in which we have helped our client realize over $1,000,000 in tax savings.

4B - Scheduling

The FDD team has put together a detailed estimate of reasonable design and construction timelines for this project which is presented on the following pages. We provide assurance to the City that the entire FDD team will work together for project success and will meet the important schedule requirements in order to accommodate the increasing water demands in the City.

The FDD team provides a streamlined design and efficient schedule for the City of Port St. Lucie

4C - Coordination with the City

With a long working history to-date between proposed project personnel and City staff, coupled with ongoing/active projects already in progress with the City, effective and efficient project coordination will be a natural byproduct of an already healthy working relationship that we hope will continue to develop. A successful approach to this multi-year infrastructure improvements program will require regular communication via weekly email reminders of critical path items and/or upcoming work items requiring City input as well as miscellaneous discussion in tandem with existing project dialogue our team already has on existing projects with the City. Our project team looks forward to continuing to bolster this relationship while devoting even more focused attention to the City's broader utility infrastructure needs via the opportunity to assist with the raw water infrastructure development serving the JEA and Rangeline facilities.

The FDD team understands that a successful public involvement engagement meets the needs and values of the community it is designed to benefit. Meaningful two-way communication with all parties is critical to build trust, understanding and consensus between the impacted stakeholders and the project team. We will provide a successful public involvement engagement by assuring a constant flow of information to residents, business owners, elected officials, churches, schools, and all other stakeholders within the project area.

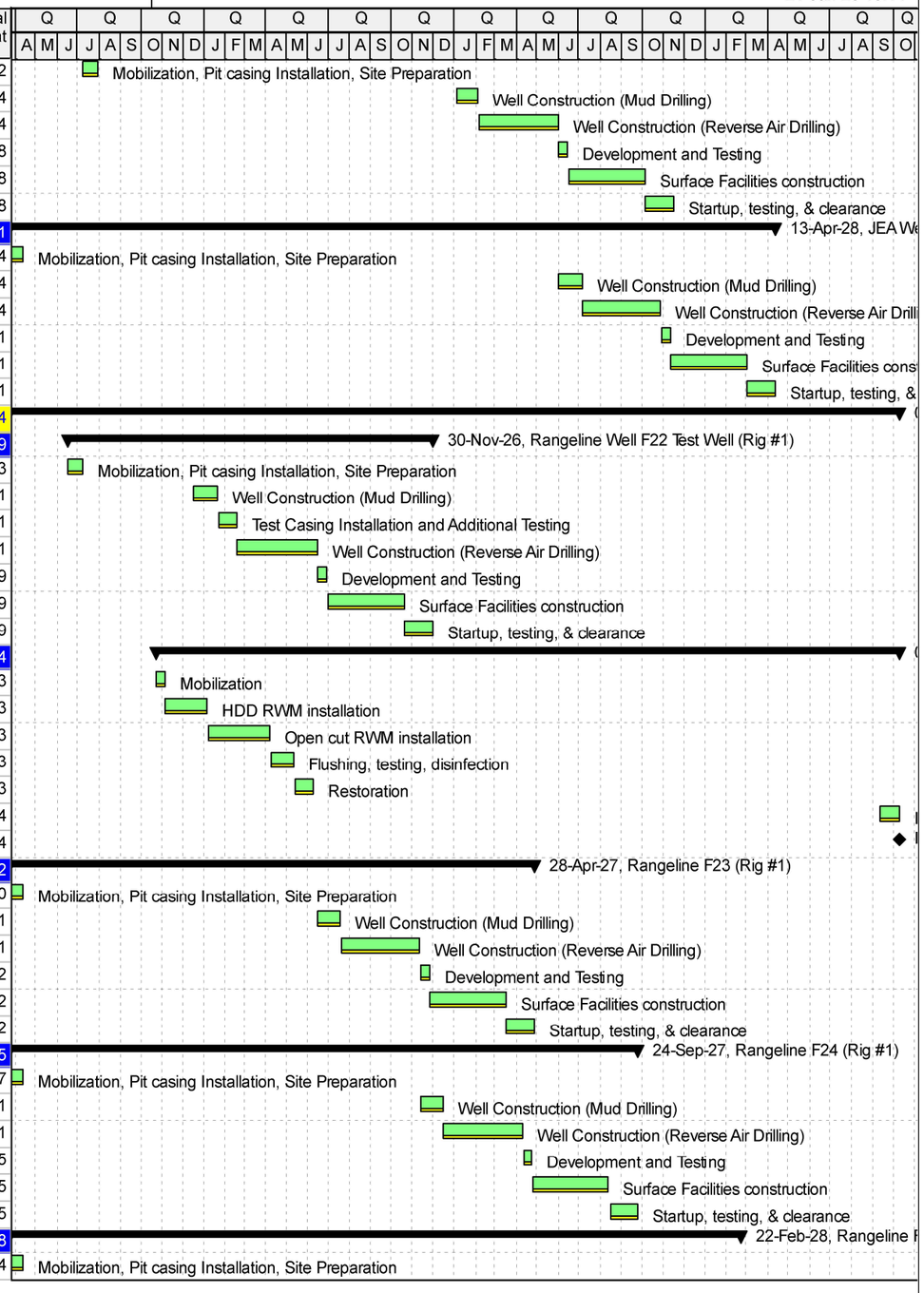
The FDD team will develop a Public Involvement Plan (PIP) within 30 calendar days after the Notice to Proceed. If allowed, our public relations subconsultant, The Merchant Strategy (TMS) will develop an independent project

Activity ID	Activity Name	Original Duration	Remaining Duration	Actual Duration	Start	Finish	Activity % Complete	Total Float
PSL UFA Wells		919	919	0	24-Mar-25	09-Oct-28		254
Design Phase		899	899	0	24-Mar-25	11-Sep-28		274
General		899	899	0	24-Mar-25	11-Sep-28		274
A1040	Notice to Proceed (3/24/25)	0	0	0	24-Mar-25		0%	291
A1050	Final Completion (9/30/29)	0	0	0		11-Sep-28*	0%	274
Well construction design		140	140	0	24-Mar-25	08-Oct-25		1033
A1540	Well preliminary design report (PDR)	15	15	0	24-Mar-25	11-Apr-25	0%	291
A1680	Groundwater modeling for WUP mod (JEA)	65	65	0	24-Mar-25	23-Jun-25	0%	1033
A1550	PDR Approval	5	5	0	14-Apr-25	18-Apr-25	0%	291
A1590	Shop drawings & GMP	15	15	0	21-Apr-25	09-May-25	0%	291
A1670	Prepare & submit SFWMD permit for Rangeline wells	10	10	0	12-May-25	23-May-25	0%	291
A1690	Submit WUP mod	5	5	0	24-Jun-25	30-Jun-25	0%	1033
A1700	WUD mod review	65	65	0	01-Jul-25	01-Oct-25	0%	1033
A1710	Health dept permit applications	5	5	0	02-Oct-25	08-Oct-25	0%	1033
Well site civil design		165	165	0	24-Mar-25	12-Nov-25		878
A1560	Civil preliminary design report (PDR)	40	40	0	24-Mar-25	16-May-25	0%	878
A1580	Survey & geotechnical reports	50	50	0	24-Mar-25	02-Jun-25	0%	878
A1570	PDR Approval	10	10	0	19-May-25	02-Jun-25	0%	878
A1600	Draft design (DD)	40	40	0	03-Jun-25	29-Jul-25	0%	878
A1610	DD approval	10	10	0	30-Jul-25	12-Aug-25	0%	878
A1630	90% design	30	30	0	13-Aug-25	24-Sep-25	0%	878
A1640	90% design approval	10	10	0	25-Sep-25	08-Oct-25	0%	878
A1620	GMP	20	20	0	09-Oct-25	05-Nov-25	0%	878
A1650	Final design	10	10	0	09-Oct-25	22-Oct-25	0%	888
A1660	Final design approval	5	5	0	06-Nov-25	12-Nov-25	0%	878
Rangeline RWM design		150	150	0	24-Mar-25	22-Oct-25		863
A1450	Preliminary survey, geotech, & investigations	45	45	0	24-Mar-25	23-May-25	0%	863
A1510	Preliminary design approval	5	5	0	27-May-25	02-Jun-25	0%	863
A1520	Draft design	30	30	0	03-Jun-25	15-Jul-25	0%	863
A1460	Draft design approval	5	5	0	16-Jul-25	22-Jul-25	0%	863
A1470	Material procurement	65	65	0	23-Jul-25	22-Oct-25	0%	863
A1480	Final design	30	30	0	23-Jul-25	03-Sep-25	0%	883
A1490	Final approval	5	5	0	04-Sep-25	10-Sep-25	0%	883
A1500	FDEP permitting	10	10	0	11-Sep-25	24-Sep-25	0%	883
Construction Phase		919	919	0	24-Mar-25	09-Oct-28		254
JEA		792	792	0	24-Mar-25	13-Apr-28		381
JEA Well #37 Test Well (Rig #1)		262	262	0	27-May-25	04-Jun-26		866
A1000	Mobilization, Pit casing Installation, Site Preparation	15	15	0	27-May-25	16-Jun-25	0%	291
A1010	Well Construction (Mud Drilling)	24	24	0	17-Jun-25	21-Jul-25	0%	291
A1880	Test Casing Installation and Additional Testing	20	20	0	22-Jul-25	18-Aug-25	0%	291
A1890	Well Construction (Reverse Air Drilling)	83	83	0	19-Aug-25	16-Dec-25	0%	291
A1020	Development and Testing	10	10	0	17-Dec-25	01-Jan-26	0%	866
A1030	Surface Facilities construction	80	80	0	02-Jan-26	23-Apr-26	0%	866
A1530	Startup, testing, & clearance	30	30	0	24-Apr-26	04-Jun-26	0%	866
JEA Well #38 (Rig #2)		610	610	0	09-Jul-25	16-Nov-27		488

Actual Level of Effort | Remaining Work | summary
Primary Baseline | Critical Remaining Work
Actual Work | Milestone

Data Date
24-Mar-25

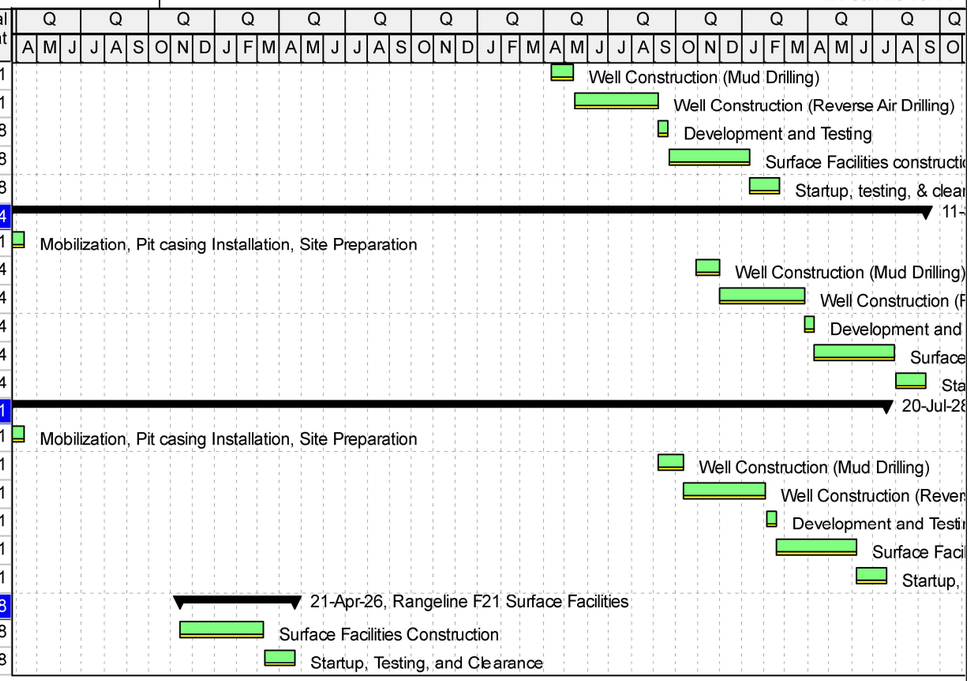
Activity ID	Activity Name	Original Duration	Remaining Duration	Actual Duration	Start	Finish	Activity % Complete	Total Float
A1100	Mobilization, Pit casing Installation, Site Preparation	15	15	0	09-Jul-25	29-Jul-25	0%	622
A1110	Well Construction (Mud Drilling)	24	24	0	04-Jan-27*	04-Feb-27	0%	254
A1970	Well Construction (Reverse Air Drilling)	83	83	0	05-Feb-27	01-Jun-27	0%	254
A1120	Development and Testing	10	10	0	02-Jun-27	15-Jun-27	0%	488
A1720	Surface Facilities construction	80	80	0	16-Jun-27	05-Oct-27	0%	488
A1730	Startup, testing, & clearance	30	30	0	06-Oct-27	16-Nov-27	0%	488
JEA Well #39 (Rig #2)		792	792	0	24-Mar-25	13-Apr-28		381
A1980	Mobilization, Pit casing Installation, Site Preparation	15	15	0	24-Mar-25	11-Apr-25	0%	804
A1990	Well Construction (Mud Drilling)	24	24	0	02-Jun-27	05-Jul-27	0%	254
A2000	Well Construction (Reverse Air Drilling)	83	83	0	06-Jul-27	28-Oct-27	0%	254
A2010	Development and Testing	10	10	0	29-Oct-27	11-Nov-27	0%	381
A2020	Surface Facilities construction	80	80	0	12-Nov-27	02-Mar-28	0%	381
A2030	Startup, testing, & clearance	30	30	0	03-Mar-28	13-Apr-28	0%	381
Rangeline		919	919	0	24-Mar-25	09-Oct-28		254
Rangeline Well F22 Test Well (Rig #1)		374	374	0	17-Jun-25	30-Nov-26		719
A1900	Mobilization, Pit casing Installation, Site Preparation	15	15	0	17-Jun-25	08-Jul-25	0%	403
A1910	Well Construction (Mud Drilling)	24	24	0	17-Dec-25	21-Jan-26	0%	291
A1920	Test Casing Installation and Additional Testing	20	20	0	22-Jan-26	18-Feb-26	0%	291
A1930	Well Construction (Reverse Air Drilling)	83	83	0	19-Feb-26	15-Jun-26	0%	291
A1940	Development and Testing	10	10	0	16-Jun-26	29-Jun-26	0%	719
A1950	Surface Facilities construction	80	80	0	30-Jun-26	19-Oct-26	0%	719
A1960	Startup, testing, & clearance	30	30	0	20-Oct-26	30-Nov-26	0%	719
Rangeline RWM		769	769	0	23-Oct-25	09-Oct-28		254
A1380	Mobilization	10	10	0	23-Oct-25	05-Nov-25	0%	863
A1390	HDD RWM installation	40	40	0	06-Nov-25	06-Jan-26	0%	863
A1400	Open cut RWM installation	65	65	0	07-Jan-26	07-Apr-26	0%	863
A1410	Flushing, testing, disinfection	25	25	0	08-Apr-26	12-May-26	0%	863
A1420	Restoration	20	20	0	13-May-26	09-Jun-26	0%	863
A1430	Health dept clearance	20	20	0	12-Sep-28	09-Oct-28	0%	254
A1440	Put RWM into service	0	0	0		09-Oct-28	0%	254
Rangeline F23 (Rig #1)		541	541	0	24-Mar-25	28-Apr-27		612
A2040	Mobilization, Pit casing Installation, Site Preparation	15	15	0	24-Mar-25	11-Apr-25	0%	590
A2050	Well Construction (Mud Drilling)	24	24	0	16-Jun-26	17-Jul-26	0%	291
A2060	Well Construction (Reverse Air Drilling)	83	83	0	20-Jul-26	11-Nov-26	0%	291
A2070	Development and Testing	10	10	0	12-Nov-26	25-Nov-26	0%	612
A2080	Surface Facilities construction	80	80	0	26-Nov-26	17-Mar-27	0%	612
A2090	Startup, testing, & clearance	30	30	0	18-Mar-27	28-Apr-27	0%	612
Rangeline F24 (Rig #1)		648	648	0	24-Mar-25	24-Sep-27		505
A2100	Mobilization, Pit casing Installation, Site Preparation	15	15	0	24-Mar-25	11-Apr-25	0%	697
A2110	Well Construction (Mud Drilling)	24	24	0	12-Nov-26	15-Dec-26	0%	291
A2120	Well Construction (Reverse Air Drilling)	83	83	0	16-Dec-26	09-Apr-27	0%	291
A2130	Development and Testing	10	10	0	12-Apr-27	23-Apr-27	0%	505
A2140	Surface Facilities construction	80	80	0	26-Apr-27	13-Aug-27	0%	505
A2150	Startup, testing, & clearance	30	30	0	16-Aug-27	24-Sep-27	0%	505
Rangeline F25 (Rig #1)		755	755	0	24-Mar-25	22-Feb-28		398
A2160	Mobilization, Pit casing Installation, Site Preparation	15	15	0	24-Mar-25	11-Apr-25	0%	804



Actual Level of Effort | Remaining Work | summary
Primary Baseline | Critical Remaining Work
Actual Work | Milestone

Data Date
24-Mar-25

Activity ID	Activity Name	Original Duration	Remaining Duration	Actual Duration	Start	Finish	Activity % Complete	Total Float
A2170	Well Construction (Mud Drilling)	24	24	0	12-Apr-27	13-May-27	0%	291
A2180	Well Construction (Reverse Air Drilling)	83	83	0	14-May-27	07-Sep-27	0%	291
A2190	Development and Testing	10	10	0	08-Sep-27	21-Sep-27	0%	398
A2200	Surface Facilities construction	80	80	0	22-Sep-27	11-Jan-28	0%	398
A2210	Startup, testing, & clearance	30	30	0	12-Jan-28	22-Feb-28	0%	398
Rangeline F20 (Rig #2)		899	899	0	24-Mar-25	11-Sep-28		254
A2220	Mobilization, Pit casing Installation, Site Preparation	15	15	0	24-Mar-25	11-Apr-25	0%	911
A2230	Well Construction (Mud Drilling)	24	24	0	29-Oct-27	01-Dec-27	0%	254
A2240	Well Construction (Reverse Air Drilling)	83	83	0	02-Dec-27	27-Mar-28	0%	254
A2250	Development and Testing	10	10	0	28-Mar-28	10-Apr-28	0%	254
A2260	Surface Facilities construction	80	80	0	11-Apr-28	31-Jul-28	0%	254
A2270	Startup, testing, & clearance	30	30	0	01-Aug-28	11-Sep-28	0%	254
Rangeline F26 (Rig #1)		862	862	0	24-Mar-25	20-Jul-28		291
A2280	Mobilization, Pit casing Installation, Site Preparation	15	15	0	24-Mar-25	11-Apr-25	0%	911
A2290	Well Construction (Mud Drilling)	24	24	0	08-Sep-27	11-Oct-27	0%	291
A2300	Well Construction (Reverse Air Drilling)	83	83	0	12-Oct-27	03-Feb-28	0%	291
A2310	Development and Testing	10	10	0	04-Feb-28	17-Feb-28	0%	291
A2320	Surface Facilities construction	80	80	0	18-Feb-28	08-Jun-28	0%	291
A2330	Startup, testing, & clearance	30	30	0	09-Jun-28	20-Jul-28	0%	291
Rangeline F21 Surface Facilities		110	110	0	13-Nov-25	21-Apr-26		878
A2340	Surface Facilities Construction	80	80	0	13-Nov-25	10-Mar-26	0%	878
A2350	Startup, Testing, and Clearance	30	30	0	11-Mar-26	21-Apr-26	0%	878



Actual Level of Effort
Actual Work
Remaining Work
Primary Baseline
Critical Remaining Work
summary
Milestone

Data Date
24-Mar-25

webpage which can be hyperlinked to the City's website. We will update the webpage as needed for continual public outreach, including updates and responses to questions for the life of the construction project. All public involvement activities will be coordinated with the City's Project Manager and the FDD team. TMS will set up and staff a project hotline which will be live monitored to respond to stakeholders' questions and concerns promptly.

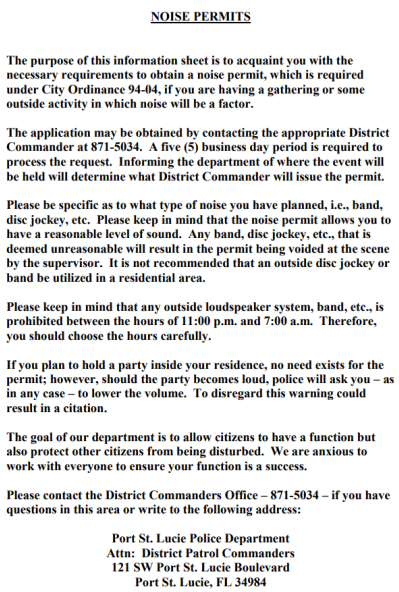
We will develop the resident and stakeholder database utilizing the St. Lucie County Property Appraiser's Public Access website (PAPA) to ensure we have the most current property owners and prepare a mailing list. The database will also include homeowners' associations, neighborhood associations, elected and key City officials, Port St. Lucie Community Redevelopment Agency, Florida Department of Environmental Protection, and others who may be impacted by the project to ensure they are informed and kept up to date.

The team will create collateral materials such as letters, flyers, brochures, and/or news releases to outline the project scope, limits, schedule, and the anticipated impacts as well as all benefits being provided. We will develop notices to invite stakeholders to all meetings, workshops, and stakeholder interviews, outline the project scope, limits, schedule, and potential impacts, including upcoming events which may affect traffic flow.

We will find appropriate public meeting locations and select one in consultation with the City. We will mail the flyers and/or letters to all identified stakeholders and/or deliver the door hangers throughout the project area. Meeting materials can be produced in other languages, such as Spanish and Creole. We will consult with the City to approve all collateral materials. We will staff each meeting, assist with setup and take down, and provide a summary that includes meeting notes, sign-in sheets, comment cards, and all written comments, questions, and responses. We will attend City and Department meetings and all other community meetings as needed and provide meeting notes.

Involvement of Other City Departments

The City of Port Saint Lucie Public Works will also be involved with the project. The raw water main and fiber optic conduits and pullboxes will be installed in the Discovery Way right-of-way. Driveways to the wells will also cross existing sidewalks and connect to the existing road. Discovery Way is a City road and right-of-way and driveway permits will need to be obtained from them. As described in the "Project Challenges" section of this RFQ response, a potential well development water disposal option is utilizing the stormwater system located adjacent to the well locations. This stormwater system is also under the jurisdiction of the Public Works Department and coordination to utilize this system will have to occur.



NOISE PERMITS

The purpose of this information sheet is to acquaint you with the necessary requirements to obtain a noise permit, which is required under City Ordinance 94-04, if you are having a gathering or some outside activity in which noise will be a factor.

The application may be obtained by contacting the appropriate District Commander at 871-5034. A five (5) business day period is required to process the request. Informing the department of where the event will be held will determine what District Commander will issue the permit.

Please be specific as to what type of noise you have planned, i.e., band, disc jockey, etc. Please keep in mind that the noise permit allows you to have a reasonable level of sound. Any band, disc jockey, etc., that is deemed unreasonable will result in the permit being voided at the scene by the supervisor. It is not recommended that an outside disc jockey or band be utilized in a residential area.

Please keep in mind that any outside loudspeaker system, band, etc., is prohibited between the hours of 11:00 p.m. and 7:00 a.m. Therefore, you should choose the hours carefully.

If you plan to hold a party inside your residence, no need exists for the permit; however, should the party becomes loud, police will ask you – as in any case – to lower the volume. To disregard this warning could result in a citation.

The goal of our department is to allow citizens to have a function but also protect other citizens from being disturbed. We are anxious to work with everyone to ensure your function is a success.

Please contact the District Commanders Office – 871-5034 – if you have questions in this area or write to the following address:

Port St. Lucie Police Department
Attn: District Patrol Commanders
121 SW Port St. Lucie Boulevard
Port St. Lucie, FL 34984

A noise exemption permit will need to be obtained from the City of Port Saint Lucie Police Department. This no-cost permit will be applied for in person and will allow work to occur outside of "normal" working hours or between the hours of 11:00 PM and 7:00 AM. This permit is only valid for one

year and it will be renewed during the project duration.

The City of Port Saint Lucie Procurement Department will be instrumental in assisting with the project schedule. The FDD team will meet with the Procurement Department at the beginning of the project to review the format and timeline requirements of the Guaranteed Maximum Prices (GMPs) to allow for a streamlined review and approval process. The FDD team will prepare a preliminary list of the various GMP packages and the timeframe they will be submitted. The Procurement Department will also be involved in the Owner Direct Purchase (ODP) process should the City elect to purchase key pieces of equipment in order to capitalize on the tax savings.

Building permits will have to be obtained for each well from the City of Port Saint Lucie Building Department. The permits will be for portions of the project such as the CBS building, including the slab, walls, roof and roof hatch and curb, and electrical items. A separate building permit will need to be obtained for each well site.

While not City Departments, two other potential City contractors that may be involved in this project are the City's fiber optic contractor and material testing firms. FDD's current proposal is to install the fiber optic conduit and coordinate the install by the City's fiber optic contractor, Precision Contracting Services (PCS), as PCS is familiar with the City's fiber optic standards. This is similar to how the City is currently connecting wells and lift stations being constructed by other contractors. FDD is currently proposing to hire the material testing firm that will perform the soil density testing and concrete testing. However, the City may choose to have one of their continuing testing firms perform the testing. If that is the option the City chooses, FDD will coordinate the testing and reporting with the firm and the City.

Additional specifics on project coordination are discussed in subsequent sections.

4D - Project Challenges

Our project team has already begun thoroughly reviewing and preparing for what will be required to deliver a successful wellfield and raw water main to the City. Water quality and well capacity are critical elements to providing the City with a Floridan Aquifer raw water supply system which can reliably meet water treatment goals over the long haul. Some of these details are hypothetical prior to beginning site specific drilling and well testing. However, our Team's Hydrogeologic and Drilling staff have begun reviewing well construction specifics for maximizing productive capacity of the proposed wells via specific drilling techniques and creative scheduling such as setting the casing at the base of the Hawthorn formation to allow for exploration of suitable production areas within the shallower portions of the Upper Floridan Aquifer during reverse-air drilling. We've also reviewed well production zone enhancement strategies such as high velocity jetting and varying forms of well acidization, to be further reviewed upon determination of geologic specifics during drilling, to provide the supply wells with

long-term stable specific capacities. Our team has considerable experience with local and regional Floridan Aquifer characteristics and productivities which provides useful insight into planning for the City's proposed wellfield.

Often overlooked but of considerable importance to enabling successful drilling and development operations, our Team has already reviewed site specifics for available formation water discharge systems/locations for each of the well sites. During well drilling and development, significant volumes of raw water are produced which must be given the opportunity to settle any suspended solids prior to being discharged to a suitable location which can legally handle sustained high influent flows. If nearby stormwater systems are inadequately sized or surface waters are prohibited from receiving raw water discharges for one reason or another, considerable cost can be added via the need for additional piping and settling structures to deliver and discharge formation water to alternative off-site locations. However, our Team has reviewed the proposed well sites and potential receiving watersheds to ensure drilling operations can proceed at reduced costs and without time delay. We've also reviewed existing stormwater facilities throughout the project corridor and have noted that some were constructed for future build-out conditions of an expanded Discovery Way which provides excess stormwater collection/transmission capacity in the interim. Construction phasing for the proposed raw water main has been evaluated within the overall construction schedule to enable use of this pipeline for cost effective formation water disposal at eastern well sites if/when necessary, in lieu of providing/installing alternative temporary pipelines upwards of 2,500 linear feet or more when these temporary facilities are an unnecessary cost.

Review of the proposed raw water main route has prompted us to consider scheduling of multiple installation means/methods including both open-cut and horizontal directional drilling techniques to reduce impacts to traffic and neighboring residents/businesses to the greatest extent possible. Proposed pipeline installation methods have been preliminarily evaluated to reduce unnecessary high points and air relief facilities via a happy-medium of open-cut and directional drilling methodologies. "Hop-scotch" drilling techniques will be reduced to eliminate unnecessary mobilization and re-mobilization of drilling equipment and to streamline installation while providing the City with a raw water supply system which can effectively be operated and maintained over the lifetime of the system.

Furthermore, a preliminary schedule has been included herein which allows for pre-emptive procurement of potentially long lead-time materials during the design phase, such as specific pipe materials, well casings, and/or pumping equipment to enable our Team to hit the ground drilling on an accelerated timeline. While we aim to accelerate this schedule further wherever possible, our team has already considered what will be necessary to, at a minimum, meet the City's production goals while having anticipated potential setbacks.

Funding

The FDD team is able to provide grant assistance and management to support the Discovery Way wells and raw water main. Holtz Consulting Engineer's (HCE's) staff are familiar with a variety of grant programs administered by the Florida

Department of Environmental Protection (FDEP), Florida Division of Emergency Management (FDEM), and South Florida Water Management District (SFWMD), and are skilled in applying for grant funding and managing awarded contracts.

Alternative water supply is a key area of interest in the State of Florida currently, and we believe that the proposed JEA and Rangeline wells are a positive step towards building a more resilient Florida. The City's plans for well development are a responsible way to meet the massive population growth and are compatible with State goals for water supply. Based on our familiarity with current funding programs, we would recommend the City consider the following options for funding assistance:

- FDEP Water Quality Improvement Grant Program
- FDEP Alternative Water Supply Grant Program
- SFWMD Cooperative Funding Program for Alternative Water Supply
- FDEP Resilient Florida Program
- FDEP Drinking Water State Revolving Fund (SRF)
- EPA Water Infrastructure Finance and Innovation Act (WIFIA) Program

HCE has successfully applied for and managed funding assistance for nearly all of these programs, the only exceptions being the FDEP Alternative Water Supply and WIFIA loan programs. We have the capability in-house to provide full application and management support for all grant programs and the SRF loan program, and we are capable of assisting City accounting staff in applying for and managing a WIFIA loan.

For ease of reference, we have summarized some of the key aspects of each program in the table below. We encourage the City to pursue all of these avenues for funding assistance, as many of the programs work hand-in-hand to help fund larger projects.

Program	Key Aspects	Limitations
FDEP Water Quality Improvement Grant	-PSL has an excellent reputation with this program already on Westport Improvements -FDEP interested in funding projects that benefit the IRL	-May require phasing due to size of project budget -Funds for construction only
FDEP Alternative Water Supply Grant	-Program seeks projects that benefit large areas or population -Program works with SFWMD AWS program	-May require phasing due to size of project budget -Funds for construction only
SFWMD Cooperative Funding Program	-PSL has an excellent reputation with this program already on Glades-Tradition Reuse Main -Program supports FDEP AWS program	-Likely to fund small portion only of project -Funds for construction only
FDEP Resilient Florida	-Funds projects consistent with City Vulnerability Assessment -Program seeks projects that support resiliency in the face of climate change	-Likely to fund small portion only of project -Funds for construction only

Program	Key Aspects	Limitations
FDEP Drinking Water SRF	-Loan program -Accepts submissions quarterly -Can fund planning, design, or construction -Works with WIFIA program on larger projects	-Funding dependent on state availability for project types -Likely to fund smaller portion of project
EPA WIFIA	-Loan program for 49% of large projects (minimum total project size $20M) -Works well with bonds and SRF to help City pay for remaining 51% -Large up-front award, long-term repayment, low federal rates -Begins process at project planning stage	-Requires $100,000 application fee to support WIFIA staff working with City accountants to set up loan

4E - Project Tracking

Florida Drilling, McNabb-Miller Hydrogeologic Consulting, and Holtz Consulting Engineers are currently partnered on other large scale infrastructure projects where weekly in-person progress meetings are already on the schedule for the foreseeable future. Adding the "City of Port St. Lucie Floridan Aquifer Well Instructure Improvements" project title to our existing weekly agendas will only serve to continue blurring the lines between employers in a partnership which is already actively delivering/completing utility infrastructure projects efficiently and in a cost-effective manner. An opportunity to work together with the City enables us to further unify our professional efforts in pursuit of serving the City's goals. Existing meetings can be made available for City staff to join in as necessary/desired to promote regular communication and provide active updates. Specifically, we suggest holding bi-weekly or monthly project meetings during construction to monitor project status, schedule, and for any critical action items as they arise. Design review meetings are proposed earlier on in the project schedule to ensure long-term project scoping and goals are clear to all staff.

Progress reports prepared by the team will be evaluated at each meeting including detailed information on the construction status, permit status, project schedule, potential contractor change orders, material availability, and other pertinent aspects of the work. The project team will prepare and distribute minutes of these meetings to memorialize any decisions made and direction given. This frequent communication ensures that the City is fully aware of the status of the work and that the schedule and budget are being monitored and adhered to. Team staff will monitor construction progress by comparing progress of construction activities on a weekly basis to the original construction schedule. Should the project schedule slip, staff will ensure that the issue is quickly addressed and rectified by requesting additional crews and/or working extended hours. Closely monitoring construction progress with their original schedule on a weekly basis will guarantee that the project will stay on schedule.

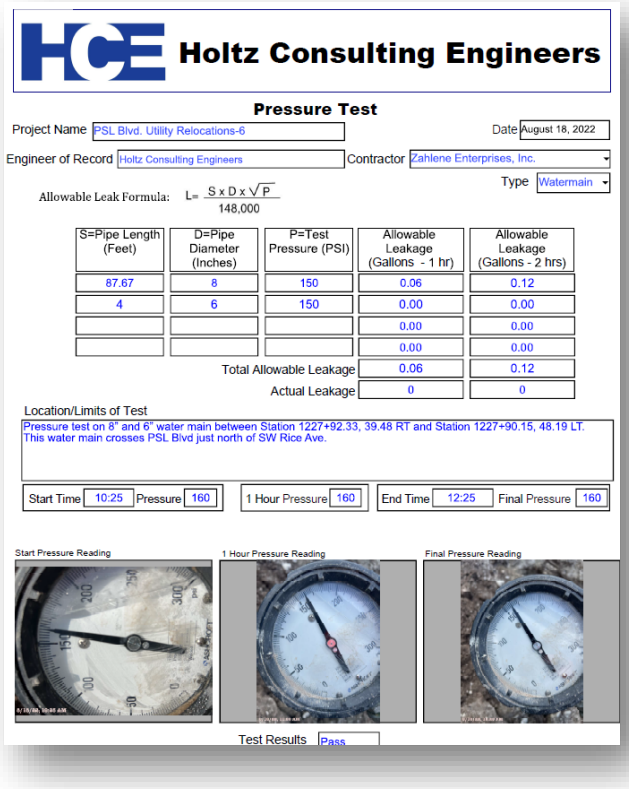
Our team is committed to providing the City with the highest quality design-build services possible. We believe we have proven our commitment and dedication on past and current projects for the City as well as other local utilities and hope you contact our references listed in **Tab 3**. We look forward to the

opportunity to demonstrate our commitment and value on this project. Our approach to satisfying our clients is to perform our work to the highest quality, on time, and without any change orders or amendments for minor changes in the scope.

4F - Document Control

PROCORE Our primary proposed means for document management and control throughout the project will be Procore. Procore is a cloud-based construction documentation management system which our team staff has been successfully using since 2018 across many projects and with other local utilities. The software can be used for the following:

- Indexed and searchable contract documents, preconstruction videos, and conformed technical plans and specifications (including any revisions during construction)
- Shop drawing / Submittal cataloging and review with functions for managing and auto-notifying "Ball-in-court" personnel during the review process so that important submittals can't "slip through the cracks"
- Daily logs with progress photos uploaded for easy review and access by all project personnel
- Custom forms can be created in Procore to assist with consistence communication. For instance, HCE created a pressure test form in Procore to match the City's forms.
- Consolidation of all project data and documentation upon project completion for efficient storage and access for future reference as necessary


Holtz Consulting Engineers

Pressure Test

Project Name: PSL Blvd. Utility Relocations-6 — Date: August 18, 2022

Engineer of Record: Holtz Consulting Engineers — Contractor: Zahlene Enterprises, Inc.

Type: Watermain

Allowable Leak Formula: $L = \frac{S \times D \times \sqrt{P}}{148{,}000}$

S=Pipe Length (Feet)	D=Pipe Diameter (Inches)	P=Test Pressure (PSI)	Allowable Leakage (Gallons - 1 hr)	Allowable Leakage (Gallons - 2 hrs)
87.67	8	150	0.06	0.12
4	6	150	0.00	0.00
			0.00	0.00
			0.00	0.00
		Total Allowable Leakage	0.06	0.12
		Actual Leakage	0	0

Location/Limits of Test

Pressure test on 8" and 6" water main between Station 1227+92.33, 39.48 RT and Station 1227+90.15, 48.19 LT. This water main crosses PSL Blvd just north of SW Rice Ave.

Start Time: 10:25 Pressure: 160 | 1 Hour Pressure: 160 | End Time: 12:25 Final Pressure: 160

Start Pressure Reading | 1 Hour Pressure Reading | Final Pressure Reading

Test Results: Pass

During drilling and testing of the Floridan Aquifer well system, our team intends to use a secure internet-based filesharing system (Dropbox) allowing all project team staff to view project files at any time. This enables senior staff to provide better support to the field staff and to perform quality control of the data gathered and recorded on-site. Critical information/records produced during drilling which are applicable to all project staff will be stored/documented/distributed via Procore project management software as discussed above.

Thorough documentation of all aspects of the project is critical during drilling and testing of the proposed Floridan Aquifer wells. As nearly all activities are performed down hole, inspection and recording are required as the work activity is being performed.

4G - Project Team/Organization Chart

The FDD team has selected specialized consultants and experienced subcontractors to form a team to provide outstanding design and construction services to the City. Our proposed organizational charts can be found on the following pages.

The largest cost of this project is the construction of the below grade portions of the wells. By serving in the prime contractor role, FDD can provide these services directly without working for another prime contractor that will mark up their work. FDD also has a mechanical and civil construction group of their company that will construct the below and above grade piping, civil site work, start-up, and testing services for each well. FDD will also directly perform the open-cut portions of the raw water main. By performing this work as the prime contractor, the City will realize a savings by the prime contractor not adding a mark-up if it was performed by subcontractors. Having both the well drilling and wellhead mechanical and civil work being performed by the same firm allows the City to realize the benefits of the familiarity between the trades.

The design team has two components – the well and the raw water main teams. By dividing the design into the two key components, they can be designed simultaneously and quickly. The pipeline hydraulic analysis and route survey and geotechnical evaluation can be performed at the same time as each well site is being designed.

The FDD team has contacted several electrical and horizontal directional drilling subcontractors. These subcontractors have all worked with the team before and have the availability to work on this project. After the preliminary analysis and reports have been prepared and the electrical scope of work determined, FDD will meet with the three electrical subcontractors, discuss the scope of work, and select the firm most qualified, available, and will provide the best value to the City. The City, at their discretion, may be involved in this selection process. The design team will prepare preliminary (30%) drawings and limited specifications for the raw water main. The team will prepare a bid form and have the selected, qualified HDD subcontractors bid the project. These subcontractors will provide costs and a schedule. This information will be provided to the City for selecting the best value and quality HDD contractor for the project.

The proposed team has worked on numerous projects together. FDD, HCE, C&W, and Wekiva are currently working on an approximately $25 million design-build project together. This familiarity with each other will allow for a streamlined design and efficient schedule.

Many of the project team members are located on the Treasure Coast. This will help promote an aggressive construction schedule, allow FDD's staff to be readily available to City staff, and provide prompt responses to any issues that may arise. All of FDD's civil/mechanical superintendents, HCE's well project manager (Curtis Robinson), their key pipeline design members (Christine Miranda and Ben Fecko) and their construction manager (Linwood Lee) all live on the Treasure Coast.

Design-Build Services for Eight (8) Wells & Raw Water Main on Discovery Way

The Florida Design Drilling Team for the City of Port St. Lucie

City of Port St. Lucie
Colleen Jacobsen

Grants & Funding
Holtz Consulting Engineers

Prime Contractor
Florida Design Drilling
Project Manager
Jeffrey Holst, CGC

Public Relations
The Merchant Strategy

DESIGN

Design (Holtz Consulting Engineers Lead)

Civil & Hydraulic Modeling
Holtz Consulting Engineers

Electrical/I&C
C&W Engineering

Structural
Wekiva Engineering

Hydrogeology

Modeling/ Permitting
Liquid Solutions Group

Design
McNabb-Miller Hydrogeologic Consulting

Survey
Betsy Lindsay

Geotechnical
Ardaman & Associates

CONSTRUCTION

Drilling
Florida Design Drilling

Top Slab Civil
Florida Design Drilling

Open-Cut Installation
Florida Design Drilling

Electricians
Energy Efficient
Paragon Electric
Gilmore

Hydrogeology
McNabb-Miller Hydrogeologic Consulting

Survey
Betsy Lindsay

Civil/Mechanical
Holtz Consulting Engineers

Geotechnical
Ardaman & Associates

Electrical
C&W Engineering

I&C
CC Controls

Structural
Wekiva Engineering

Horizontal Directional Drilling
K3
DBE
Centerline

Design Team Key Personnel Organizational Chart

The Florida Design Drilling Team for the City of Port St. Lucie

Grants & Funding
Holtz Consulting Engineers
Kristin Fecko, PE

Prime Contractor
Florida Design Drilling
Jeffrey Holst, CGC

QA/QC
Holtz Consulting Engineers
Lawrence Lardieri, PE

RAW WATER PIPELINE

Hydraulic Modeling
Holtz Consulting Engineers
Matthew Paymer, PE
Brad Gilbert, EI

Design
Holtz Consulting Engineers
Ben Fecko, PE
Christine Miranda, PE
Kelley Conboy, PE

FLORIDAN AQUIFER WELLS

Modeling/Permitting
Liquid Solutions Group
Brian Megic, PE

Hydrogeology Design
McNabb-Miller Hydrogeologic Consulting
David McNabb, PG
Rodney Miller, PG

Wellhead & Site Civil/Mechanical
Holtz Consulting Engineers
Curtis Robinson, PE
Harrison Barron, PE
Stephen Fowler, PE, CGC

Geotechnical
Ardaman & Associates
Mark Zrallack, PE

Survey
Betsy Lindsay
Elizabeth Lindsay, PLS

Electrical
C&W Engineering
Michael Guida, PE

Structural
Wekiva Engineering
David Morris, PE

Construction Team Key Personnel Organizational Chart

The Florida Design Drilling Team for the City of Port St. Lucie

Grants & Funding
Holtz Consulting Engineers
Kristin Fecko, PE

Prime Contractor
Florida Design Drilling
Jeffrey Holst, CGC

Public Relations
The Merchant Strategy
Sharon Merchant
Cheryl Scott

RAW WATER PIPELINE

Open-Cut Installation
Florida Design Drilling
Jeffrey Holst
Fernanda Sousa

Horizontal Directional Drilling
K3
DBE
Centerline

FLORIDAN AQUIFER WELLS

Drilling/Top Slab Civil
Florida Design Drilling
Daniel Ringdahl
Noah Ringdahl
Michael Black
Brandon Holst
Kenneth Lawson
Bruce Balmer
Brad Brooks

Electricians
Energy Efficient
Paragon Electric
Gilmore

Instrumentation & Controls
CC Controls

Geotechnical
Ardaman & Associates
Mark Zrallack, PE

Survey
Betsy Lindsay
Elizabeth Lindsay, PLS

Civil and Mechanical
Holtz Consulting Engineers
Stephen Fowler, PE, CGC
Linwood Lee
Rick Martens

Structural
Wekiva Engineering
David Morris, PE

Hydrogeology
McNabb-Miller Hydrogeologic Consulting
Jhonatan Delgado Padilla
Sally Durall

Electrical
C&W Engineering
Michael Guida, PE

TAB 5: STATE OF FLORIDA CERTIFIED MINORITY BUSINESS ENTERPRISE

Florida Design Drilling, LLC is not a State of Florida Certified Minority Business Enterprise.

TAB 6: ADDITIONAL REQUIRED PROPOSAL SUBMITTAL FORMS

The below noted completed forms can be found on the following pages:

- Contractor's General Information Work Sheet
- Cone of Silence Form
- Contractor's Code of Ethics
- E-Verify Form
- Non-Collusion Affidavit
- Drug-Free Workplace Form
- Vendor Certification Regarding Scrutinized Companies Form
- Truth-in-Negotiation Form
- Trench Safety Act Form
- Affidavit of Nongovernmental Entity Anti-Human Trafficking Laws

CONTRACTOR'S GENERAL INFORMATION WORK SHEET
eRFP #20240141

It is understood and agreed that the following information is to be used by the City to determine the qualifications of prospective Contractor to perform the work required. The Contractor waives any claim against the City that might arise with respect to any decision concerning the qualifications of the Contractor.

The undersigned attests to the truth and accuracy of all statements made on this questionnaire. Also, the undersigned hereby authorizes any public official, Engineer, Surety, bank, material or equipment manufacturer, or distributor, or any person, firm or corporation to furnish the City any pertinent information requested by the City deemed necessary to verify the information on this questionnaire.

Dated at 7733 Hooper Road, West Palm Beach, FL 33411 (Location), this 10th day of Jan, 2025

Name of Organization/Contractor: Florida Design Drilling LLC

By: Brandon Holst, Vice President
Name and Title

1. Corporation, Partnership, Joint Venture, Individual or other? Corporation

2. Firm's name and main office address, telephone and fax numbers

   Name: Florida Design Drilling LLC

   Address: 7733 Hooper Road
   West Palm Beach, FL 33411

   Telephone Number: 561-568-1231

   Fax Number: 561-844-2967

3. Contact person: Brandon Holst Email: brandon@fldrilling.com

4. Firm's previous names (if any). Florida Design Drilling Corporation

5. If Offeror is operating under a fictitious name, submit evidence of compliance with the Florida Fictitious Name Statute. N/A

6. How many years has your organization been in business? 19

   a. Years doing business under its present business name? 1

7. Total number of staff at this location: 20 Total number of staff on the Treasure Coast: 100

8. Indicate the registration, license numbers or certificate numbers for the businesses or professions, which are the subject of the eRFP. Please attach certificate of competency and/or state registration:

Dan Ringdahl - Water Well Contractor - 11148
Jeffrey Holst - General Contractor - CGC1522104
Brandon Holst - Water Well Contractor - 11415

9. **ADDENDUM ACKNOWLEDGMENT** - Proposer acknowledges that the following addenda have been received and are included in its proposal/bid:

Addendum Number	Date Issued	Addendum Number	Date Issued
1	12/19/24		
2	12/23/24		

10. Have you personally inspected the site of the proposed work?

Yes (●) No ( )

11. Have you ever failed to complete any work awarded to you?

Yes ( ) No (●)

If yes, please explain:

12. Has the Contractor or any of its principals ever been declared bankrupt or reorganized under Chapter 11 or put into receivership?

Yes ( ) No (●)

If yes, please explain:

13. List any lawsuits pending or completed within the past five (5) years involving the corporation, partnership or individuals with more than ten percent (10 %) interest:

Neither the corporation, nor any of it's owners have any lawsuits pending or completed in the last five years.

(N/A is not an acceptable answer - insert lines if needed)

14. List any judgments from lawsuits in the last five (5) years:

There are no judgments from lawsuits in the last five years.

(N/A is not an acceptable answer - insert lines if needed)

15. List any criminal violations and/or convictions of the Proposer and/or any of its principals:
Neither the proposer or any of its principles have any criminal violations or convictions.

(N/A is not an acceptable answer - insert lines if needed)

16. State the name of the individual who will have personal supervision of the work:
Brandon Holst

17. State the name and address of attorney, if any, for the business of the Offeror:
Ryan Blum, 600 Highway H, Troy, MO 63379

18. State the names and addresses of all businesses and/or individuals who own an interest of more than five percent (5%) of the Offeror's business and indicate the percentage owned of each such business and/or individual:

Daniel Ringdahl, CEO - 22.5% 7733 Hooper Road, West Palm Beach, FL 33411
Noah Rigndahl, President - 22.5% 7733 Hooper Road, West Palm Beach, FL 33411
Jeffrey Holst, Senior Vice President - 5% 7733 Hooper Road, West Palm Beach, FL
Geeding Construction - 50% 600 Highway H, Troy, MO 63379

19. State the names, addresses, and the type of business of all firms that are partially or wholly owned by Offeror:
N/A

20. State the name of Surety Company which will be providing the bond, and name and address of agent:
Acrisure
Brett Rosenhaus
220 Congress Park Drive
Suite 100
Delray Beach, FL 33445

[Balance of page intentionally left blank]

The Offeror acknowledges and understands that the information contained in response to this Qualification Statement shall be relied upon by owner in awarding the contract and such information is warranted by Offeror to be true. The discovery of any omission or misstatement that materially affects the Offeror's qualifications to perform under the contract shall cause the owner to reject the proposal, and if after the award, to cancel and terminate the award and/or contract.

By: _____
Authorized Representative of (company name) Florida Design Drilling LLC

State of: Florida

County of: Palm Beach

Before me personally appeared: Brandon Holst)
(please print)

Please check one:

Personally known ✓ Produced Identification: _____
(type of identification)

Identification No. N/A

and known to me to be the person described in and who executed the foregoing instrument, and acknowledged to and before me that he executed said instrument for the purposes therein expressed.
(he/she)

WITNESS my hand and official seal, this 7th day of January, 2025.

_____
Notary Signature

Notary Public State of Florida at Large.

My Commission Expires 7-11-2026.

Michael Perez
Commission # HH 286038
Commission Expires 07-11-2026
Bonded Through - Cynanotary
Florida - Notary Public

(seal)

PORT ST. LUCIE
OFFICE OF MANAGEMENT AND BUDGET

NOTICE TO ALL PROPOSERS

To ensure fair consideration is given for all Proposers, it must be clearly understood that upon release of the proposal and during the proposal process, firms and their employees of related companies as well as paid or unpaid personnel acting on their behalf shall not contact or participate in any type of contact with City employees, department heads or elected officials, up to and including the Mayor and City Council. The "Cone of Silence" is in effect for this solicitation from the date the solicitation is advertised on DemandStar, until the time an award decision has been approved by City Council and fully executed by all parties. Information about the Cone of Silence can be found under the City of Port St. Lucie Ordinance 20-15, Section 35.13. Contact with anyone other than the Issuing Officer may result in the vendor being disqualified. All contact must be coordinated through Mr. Nathaniel Rubel, Issuing Officer, for the procurement of these services.

All questions regarding this Solicitation are to be submitted in writing to Nathaniel Rubel , Procurement Agent with the Procurement Management Department via e-mail nrubel @cityofpsl.com, or by phone 772-344-4230 . Please reference the Solicitation number on all correspondence to the City.

All questions, comments and requests for clarification must reference the Solicitation number on all correspondence to the City. Any oral communications shall be considered unofficial and non-binding.

Only written responses to written communication shall be considered official and binding upon the City. The City reserves the right, at its sole discretion, to determine appropriate and adequate responses to the written comments, questions, and requests for clarification.

**NOTE: All addenda and/or any other correspondence before bid close date (general information, question and responses) to this solicitation will be made available exclusively through the DemandStar's Website for retrieval. All notice of intent to award documentation will be published on the City Clerk's Website. Proposers are solely responsible for frequently checking these websites for updates to this solicitation.*

I understand and shall fully comply with all requirements of City of Port. St. Lucie Ordinance 20-15, Section 35.13.

Typed Name: Brandon Holst
Signed:
Company and Job Title: Florida Design Drilling LLC, Vice President
Date: 1/7/25

PORT ST. LUCIE
OFFICE OF MANAGEMENT AND BUDGET

eRFP #20240141
CONTRACTOR'S CODE OF ETHICS

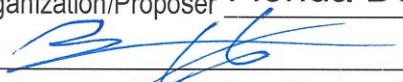
The City of Port St Lucie ("City), through its Procurement Management Department ("Procurement Management Department") is committed to a procurement process that fosters fair and open competition, is conducted under the highest ethical standards and enjoys the complete confidence of the public. To achieve these purposes, Procurement Management Department requires each vendor who seeks to do business with the City to subscribe to this Contractor's Code of Ethics.

- A Contractor's bid or proposal will be competitive, consistent and appropriate to the bid documents.
- A Contractor will not discuss or consult with other Vendors intending to bid on the same contract or similar City contract for the purpose of limiting competition. A Vendor will not make any attempt to induce any individual or entity to submit or not submit a bid or proposal.
- Contractor will not disclose the terms of its bids or proposal, directly or indirectly, to any other competing Vendor prior to the bid or proposal closing date.
- Contractor will completely perform any contract awarded to it at the contracted price pursuant to the terms set forth in the contract.
- Contractor will submit timely, accurate and appropriate invoices for goods and/or services actually performed under the contract.
- Contractor will not offer or give any gift, item or service of value, directly or indirectly, to a City employee, City official, employee family member or other vendor contracted by the City.
- Contractor will not cause, influence or attempt to cause or influence, any City employee or City Official, which might tend to impair his/her objectivity or independence of judgment; or to use, or attempt to use, his/her official position to secure any unwarranted privileges or advantages for that Vendor or for any other person.
- Contractor will disclose to the City any direct or indirect personal interests a City employee or City official holds as it relates to a Vendor contracted by the City.
- Contractor must comply with all applicable laws, codes or regulations of the countries, states and localities in which they operate. This includes, but is not limited to, laws and regulations relating to environmental, occupational health and safety, and labor practices. In addition, Contractor must require their suppliers (including temporary labor agencies) to do the same. Contractor must conform their practices to any

published standards for their industry. Compliance with laws, regulations and practices include, but are not limited to the following:

- Obtaining and maintaining all required environmental permits. Further, Contractor will endeavor to minimize natural resource consumption through conservation, recycling and substitution methods.
- Providing workers with a safe working environment, which includes identifying and evaluating workplace risks and establishing processes for which employee can report health and safety incidents, as well as providing adequate safety training.
- Providing workers with an environment free of discrimination, harassment and abuse, which includes establishing a written antidiscrimination and anti-bullying/harassment policy, as well as clearly noticed policies pertaining to forced labor, child labor, wage and hours, and freedom of association.

Name of Organization/Proposer Florida Design Drilling LLC

Signature 

Printed Name and Title Brandon Holst, Vice President

Date 1/10/25

DISCLAIMER: This Code of Ethics is intended as a reference and procedural guide to contractors. The information it contains should not be interpreted to supersede any law or regulation, nor does it supersede the applicable contractor contract. In the case of any discrepancies between it and the law, regulation(s) and/or contractor contract, the law, regulatory provision(s) and/or vendor contract shall prevail.

PORT ST. LUCIE
HEART OF THE TREASURE COAST

E-Verify Form

Supplier/Consultant acknowledges and agrees to the following:

1. Shall utilize the U.S. Department of Homeland Security's E-Verify system to verify the employment eligibility of all new employees hired by the Supplier/Consultant during the term of the contract; and
2. Shall expressly require any subcontractors performing work or providing services pursuant to the state contract to likewise utilize the U.S. Department of Homeland Security's E-Verify system to verify the employment eligibility of all new employees hired by the subcontractor during the contract term.
3. The Contractor hereby represents that it is in compliance with the requirements of Sections 448.09 and 448.095, Florida Statutes. The Contractor further represents that it will remain in compliance with the requirements of Sections 448.09 and 448.095 Florida Statutes, during the term of this contract and all attributed renewals.
4. The Contractor hereby warrants that it has not had a contract terminated by a public employer for violating Section 448.095, Florida Statutes, within the year preceding the effective date of this contract. If the Contractor has a contract terminated by a public employer for any such violation during the term of this contract, it must provide immediate notice thereof to the City.

E-Verify Company Identification Number 1250269

Date of Authorization 1/10/25

Name of Contractor Florida Design Drilling LLC

Name of Project Design-Build Services for Eight (8) Wells and the Raw Water Main on Discovery Way

Solicitation Number (If Applicable) 20240141

I hereby declare under penalty of perjury that the foregoing is true and correct.

Executed on January, 10th, 2025 in West Palm Beach (city), FL (state).

Signature of Authorized Officer

Brandon Holst, Vice President

Printed Name and Title of Authorized Officer or Agent

SUBSCRIBED AND SWORN BEFORE ME

ON THIS THE 10th DAY OF January, 2025.

NOTARY PUBLIC

My Commission Expires: 7-11-2026

NOTARY PUBLIC STATE OF FLORIDA
Michael Perez
Commission # HH 286038
Commission Expires 07-11-2026
Bonded Through - Cynanotary
Florida - Notary Public

NON-COLLUSION AFFIDAVIT
eRFP #20240141
Design-Build Services for Eight (8) Wells and the Raw Water Main on Discovery Way

State of Florida }

County of Palm Beach }

Brandon Holst, being first duly sworn, disposes and says that:
(Name/s)

1. They are Vice President of Florida Design Drilling LLC the Proposer that
(Title) (Name of Company)

has submitted the attached PROPOSAL;

2. He is fully informed respecting the preparation and contents of the attached proposal and of all pertinent circumstances respecting such PROPOSAL;

3. Such Proposal is genuine and is not a collusive or sham Proposal;

4. Neither the said Proposer nor any of its officers, partners, owners, agents, representatives, employees or parties in interest, including this affiant, has in any way colluded, conspired, connived or agreed, directly or indirectly with any other Proposer, firm or person to submit a collusive or sham Proposal in connection with the contract for which the attached proposal has been submitted or to refrain from proposing in connection with such Contract or has in any manner, directly or indirectly, sought by agreement or collusion or communication or conference with any other Proposer, firm or person to fix the price or prices in the attached Proposal or of any other Proposer, or to secure through any collusion, conspiracy, connivance or unlawful agreement any advantage against the City of Port St. Lucie or any person interested in the proposed Contract; and

5. The price or prices quoted in the attached Proposal are fair and proper and are not tainted by any collusion, conspiracy, connivance or unlawful agreement on the part of the Proposer or any of its agents, representatives, owners, employees, or parties in interest, including this affiant.

PORT ST. LUCIE
HEART OF THE TREASURE COAST

(Signed) _____

(Title) Brandon Holst, Vice President

STATE OF FLORIDA }
COUNTY OF ST. LUCIE} SS:

The foregoing instrument was acknowledged before me this *(Date)* 10th day of January, 2025

by: Brandon Holst who is personally known to me or who has produced

Personally Known as identification and who did (did not) take an oath.

Commission No. HH 286038

Notary Print: Michael Perez

Notary Signature: _____

DRUG-FREE WORKPLACE FORM
eRFP # 20240141
Design-Build Services for Eight (8) Wells and the Raw Water Main on Discovery Way

The undersigned Contractor in accordance with Florida Statute 287.087 hereby certifies that Florida Design Drilling LLC does:
(Name of Business)

1. Publish a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the workplace and specifying the actions that will be taken against employees for violations of such prohibition.

2. Inform employees about the dangers of drug abuse in the workplace, the business's policy of maintaining a drug-free workplace, any available drug counseling, rehabilitation, and employee assistance programs, and the penalties that may be imposed upon employees for drug abuse violations.

3. Give each employee engaged in providing the commodities or contractual services that are under proposal a copy of the statement specified in subsection (1).

4. In the statement specified in subsection (1), notify the employees that, as a condition of working on the commodities or contractual services that are under proposal, the employee will abide by the terms of the statement and will notify the employer of any conviction of, or plea of guilty or nolo contendere to, any violation of Chapter 893 Florida Statutes or of any controlled substance law of the United States or any state, for a violation occurring in the workplace no later than five (5) days after such conviction.

5. Impose a sanction on, or require the satisfactory participation in a drug abuse assistance or rehabilitation program if such is available in the employee's community, by any employee who is so convicted.

6. Make a good faith effort to continue to maintain a drug-free workplace through implementation of this section.

As the person authorized to sign the statement, I certify that this firm complies fully with the above requirements.

Bidder's Signature

Brandon Holst, Vice President

Date: 1/10/25

VENDOR CERTIFICATION REGARDING SCRUTINIZED COMPANIES' LISTS

Vendor Name:	Florida Design Drilling LLC
Vendor FEIN:	20-2779560
Authorized Representative's Name:	Brandon Holst
Authorized Representative's Title:	Vice President
Address:	7733 Hooper Road
City, State and Zip Code:	West Palm Beach, FL 33411
Phone Number:	561-568-1231
Email Address:	brandon@fldrilling.com

Sections 287.135 and 215.473, Florida Statutes, prohibit Florida municipalities from contracting with companies, for goods or services over $1,000,000 that are on either the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, or to engage in any Business operations with Cuba or Syria. Sections 287.135 and 215.4725 also prohibit Florida municipalities from contracting with companies, for goods or services in any amount that are on the list of Scrutinized Companies that Boycott Israel.

The list of "Scrutinized Companies" is created pursuant to Section 215.473, Florida Statutes. A copy of the current list of "Scrutinized Companies" can be found at the following link: https://www.sbafla.com/fsb/FundsWeManage/FRSPensionPlan/GlobalGovernanceMandates/QuarterlyReports.aspx

As the person authorized to sign on behalf of the Respondent Vendor, I hereby certify that the company identified above in the section entitled "Respondent Vendor Name" is not listed on either the Scrutinized Companies with Activities in Sudan List; or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List; is not participating in a boycott of Israel; and does not have any business operations with Cuba or Syria. I understand that pursuant to Sections 287.135 and 215.473, Florida Statutes, the submission of a false certification may subject the Respondent Vendor to civil penalties, attorney's fees, and/or costs.

I understand and agree that the City may immediately terminate any contract resulting from this solicitation upon written notice if the company referenced above are found to have submitted a false certification or any of the following occur with respect to the company or a related entity: (i) for any contract for goods or services in any amount of monies, it has been placed on the Scrutinized Companies that Boycott Israel List, or is engaged in a boycott of Israel, or (ii) for any contract for goods or services of one million dollars ($1,000,000) or more, it has been placed on the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, or it is found to have been engaged in business operations in Cuba or Syria.

Authorized Signature

Brandon Holst, Vice President

Print Name

Signature

TRUTH-IN-NEGOTIATION CERTIFICATE AND AFFIDAVIT

STATE OF FLORIDA §
COUNTY OF ST. LUCIE §

Before me, the undersigned authority, personally appeared affiant Noah Ringdahl, who being first duly sworn, deposes and says:

1. That the undersigned firm is furnishing this Truth in Negotiation Certificate pursuant to Section 287.055(5)(a) of the Florida Statutes for the undersigned firm to receive an agreement for professional services with the City of Port St. Lucie, St. Lucie County, Florida.

2. That the undersigned firm is a corporation which engages in furnishing professional engineering services and is entering into an agreement with the City of Port St. Lucie, St. Lucie County, Florida to provide professional services for a project known as Design-Build Services for Eight (8) Wells and the Raw Water Main on Discovery Way, Contract #20240141.

3. That the undersigned firm has furnished the City of Port St. Lucie, St. Lucie County, Florida a detailed analysis of the cost of the professional services required for the project.

4. That the wage rate information and other factual unit cost, which the undersigned firm furnished, were accurate, complete and current at the time the undersigned firm and the City of Port St. Lucie entered into the agreement for professional services on the project.

5. That the agreement which the undersigned firm and the City of Port St. Lucie entered into on this job contained a provision that the original agreement price and any additions thereto shall be adjusted to include any significant sums by which the City of Port St. Lucie determines the agreement price was increased due to inaccurate, incomplete or non-current wage rates or other factual unit cost and that all such agreement adjustments shall be made within one (1) year following the end of the agreement.

FURTHER AFFIANT SAYETH NAUGHT

Florida Design Drilling LLC
Name of Firm

By: President – Noah Ringdahl

The foregoing instrument was acknowledged before me by Noah Ringdahl who has produced _____ as identification or is personally known to me.

WITNESS my hand and official seal in the Stare of County last aforesaid this 10th day of January, 2025.

(SEAL)

Michael Perez
Commission # HH 286038
Commission Expires 07-11-2026
Bonded Through - Cynanotary
Florida - Notary Public

Signature

Michael Perez
Notary Name (typed or printed)

Accountant
Title or Rank

CITY OF PORT ST. LUCIE, FLORIDA
eRFP NO. 20240141
PROJECT TITLE: Design-Build Services for Eight (8) Wells and the Raw Water Main on Discovery Way

TRENCH SAFETY ACT COMPLIANCE STATEMENT

Project Name: **Design-Build Services for Eight (8) Wells and the Raw Water Main on Discovery Way**

Project Location: Eight (8) Well Sites on City-owned Land and Discovery Way, Port St. Lucie, Florida 34987

Instructions:

Chapter 90-96 of the Laws of Florida requires all Contractors' engaged by The City of Port St. Lucie, Florida to comply with Occupational Safety and Health Administration Standard 29 C.F.R. s. 1926.650 Subpart P. All prospective Contractors are required to sign the compliance statement and provide compliance cost information where indicated below. The costs for complying with the Trench Safety Act must be incorporated into this project's base bid.

Certify this form in the presence of a notary public or other officer authorized to administer oaths.

Certification

1. I understand that Chapter 90-96 of the Laws of Florida (The Trench Safety Act) requires me to comply with OSHA Standard 29 C.F.R. s. 1926.650 Subpart P. I will comply with The Trench Safety Act and I will design and provide trench safety systems at all trench excavations in excess of five feet in depth for this project.

2. The estimated cost imposed by compliance with The Trench Safety Act will be:

One thousand Dollars (Written) $1,000.00 (Figures)

3. The amount listed above has been included within the Base Bid.

Certified: Florida Design Drilling LLC
(Company-Contractor)

By: _____
(President's Signature)
Noah Riegdah
(President's Typed or Printed Name)

Sworn to and subscribed before me in Palm Beach County, Florida on the 10th day of January, 2025.

_____
NOTARY PUBLIC

Michael Perez
Commission # HH 286038
Commission Expires 07-11-2026
Bonded Through - Cynanotary
Florida - Notary Public

AFFIDAVIT OF NONGOVERNMENTAL ENTITY COMPLIANCE WITH ANTI-HUMAN TRAFFICKING LAWS

In accordance with section 787.06(13), Florida Statutes, the undersigned officer or representative of the nongovernmental entity listed below ("Entity"), attests under penalty of perjury that the Entity does not use coercion for labor or services as defined in section 787.06.

The undersigned is authorized to execute this affidavit on behalf of Entity.

Entity Name: Florida Design Drilling LLC

Name of Affiant: Brandon Holst

Signature of Affiant: 

Affiant's Title: Vice President

Date of Signature: 1/10/25