

SECTION 00490

ADDENDUM NO. 1

**RAW WATER SUPPLY IMPROVEMENTS
BRUNSWICK REGIONAL WATER AND SEWER H2GO
LELAND, NORTH CAROLINA**

SUBJECT: ADDENDUM NO. 1

SEPTEMBER 4, 2024

To the Plans and Specifications for:
Raw Water Supply Improvements
Leland, N.C.

To: PROSPECTIVE BIDDERS AND OTHER CONCERNED PARTIES

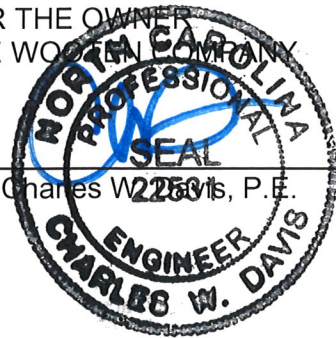
This ADDENDUM forms a part of the Contract Documents and modifies the original Bidding Documents as noted below. Bidders shall acknowledge receipt of the ADDENDUM in the space provided on the Bid Form. Failure to do so may subject the Bidder to Disqualification.

- A. General
 - 1. Minutes and Attendance Sheet from the Pre-Bid Conference held on August 27, 2024 are attached.
 - 2. Well Construction Records for existing Wells 04P, 04B, 05P, & 05B are attached for information.
 - 3. Bidders shall notify Wooten if they are interested in scheduling a site visit with H2GO. H2GO can accommodate 2 people max. from the bidder's firm for a visit.
- B. Bidding Requirements
 - 1. Document 00410, Bid Form
 - a. Replace this document in its entirety with the revised Section 00410, Bid Form noted as "Attachment to Addendum No. 1".
- C. Contracting Requirements
 - 1. Document 00550, Notice to Proceed
 - a. Replace this section in its entirety with the attached Document 00550, Notice to Proceed noted as "Attachment to Addendum No. 1".
- D. Technical Specification Requirements
 - 1. Section 09900, Painting
 - a. Add this specification section in its entirety noted as "Attachment to Addendum No. 1".
 - 2. Section 11068, Submersible Well Pumps
 - a. Paragraph 1.03.A.1: Change to read as follows: "The pumps shall be as manufactured by American-Marsh, Grundfos, Floway LST, or approved equal."

Bids will be received until 2:00 pm, September 17, 2024.

FOR THE OWNER
THE WOODEN COMPANY

BY _____
Charles W. Davis, P.E.



4-SEPT-24

END OF DOCUMENT

Minutes from Pre-Bid Conference
Brunswick Regional Water and Sewer H2GO
Raw Water System Improvements
TWC Project No. 3081-BD
8/27/24

1. Bid Date: Tuesday, September 17, 2024 @ 2:00 pm at the RO Water Plant
2. General Discussion of Contract
 - a. Construct approximately 10,850 LF of 20 ft wide gravel access road.
 - b. Construct approximately 400 LF of 12" and 16,400 LF of 18" raw water main.
 - f. Construct approximately 45 LF of 30" steel encasement and 18" raw water by open cut.
 - g. Construct HPDE conduits for Duke Energy service from source to transformer location at each well site with junction locations every 1,200 LF.
 - h. Construct a 2-inch fiber optic conduit with junction structures every 500 LF from Buckeye Road to Well Site 6 and from Well Site 6 to Well Site 8.
 - i. Lowering the existing Pee Dee well pump, extending the existing 6" stainless steel well pipe, and extending the existing electrical power cables for existing Well Sites 1 through 5.
 - j. Drilling, developing and testing a total of six (6) water production wells on three well sites (two wells per site at Well Sites 6, 7, & 8).
 - k. Well Site Completion - site work; final grading; seeding; mulching; tacking; yard piping; fencing; 8-inch thick compacted ABC access drive with geotextile fabric; site signage; well head piping and valves; concrete pads for electrical transformer, standby generator, and electrical building; electrical building including HVAC equipment; and installation of the submersible well pump and stainless steel drop piping for the Pee Dee and Black Creek wells; and connection to new raw water main.
3. Work by Owner
 - a. Provision of complete submersible well pump package for each well site.
 - b. Provision and installation of the following for each well site:
 - Standby Generator
 - All above-ground and below-grade conduits
 - All wiring and terminations
 - Electrical grounding system
 - All electrical power panels
 - Variable Frequency Drives (VFDs)
 - Automatic Transfer Switch
 - Site lighting and concrete pole bases
 - Telemetry system
 - Telecommunications distribution system
 - c. Coordination with electric service provider for primary electric service.
 - d. Electric permitting and inspections with authority having jurisdiction.
4. Conditional NTP & Milestones: The Contractor will be issued a conditional Notice to Proceed prohibiting access to the project beyond Station 37+55 until such time as the USACE wetlands permit is obtained. For planning purposes, the Contractor should assume the permit will be in place by January 15, 2025, at which time the Engineer will issue a non-restrictive Notice to Proceed.

Milestone Event	Calendar Days	Liquidated Damages
Complete lowering of Wells 01P through 05P per Section 01100 - Summary of Work – Paragraph 1.03.A.1	45	\$1,000
Complete construction ready for operation the 18-inch raw water main (Sta. 0+00 to Sta. 37+55) per Section 01100 – Summary of Work – Paragraphs 1.03.A.2 through 1.03.A.4.	90	\$750
Complete construction and place into operation the 18-inch raw water main (Sta. 0+00 to Sta. 59+62 and Sta. 100+00 to 102+47) and Well Site 6 per Section 01100 – Summary of Work – Paragraphs 1.03.A.6 through 1.03.A.13.	240**	\$1,000
Complete construction and place into operation the 18-inch raw water main (Sta. 102+47 to Sta. 153+11) and Well Site 7 per Section 01100 – Summary of Work – Paragraphs 1.03.A.14 through 1.03.A.16.	300**	\$750
Complete construction and place into operation the remaining 18-inch raw water main (Sta. 153+11 to Sta. 203+40) and Well Site 8 per Section 01100 – Summary of Work – Paragraphs 1.03.A.17 through 1.03.A.23.	360**	\$750

** from the date the Contractor receives unrestricted access to the entire project, estimated to occur by January 15, 2025, upon receipt of the USACOE wetlands perm

5. Contract Time – 450 days
6. Minority Participation Goals: No required goal for this project, however Contractor shall show good faith efforts to solicit bids from MBE/WBE subcontractors and suppliers.
7. Basis of Bid – Unit Price and Alternate
 - a. Alternate No. 1 – Incentive to complete Article 6.03.C.3 (i.e. Milestone Event 3) in 180 days in lieu of 240 days.
8. Submittal of Bid: Submit the following with the Bid
 - a. Required Bid Security
 - b. Identification of Minority Participation
 - c. Affidavit A or Affidavit B
 - d. List of Proposed Subcontractors
 - e. E-verify Affidavit
 - f. Iran Divestment Act Certification
9. Project Permits
 - a. NCDEQ-Public Water Supply ATC
 - b. NCDEQ – Well Construction Permit
 - c. NCDOT Encroachment Agreement
 - d. NCDEQ - Stormwater Permit
 - e. NCDEMLR – Sedimentation and Erosion Control Permit
 - f. USACE Individual Permit
10. Questions regarding the project may be faxed or emailed. Fax number is (919) 834-3589. Email address is cdavis@thewootencompany.com. An addendum will be issued approximately one week prior to bid.

11. Contractor Questions/Comments

The following is a list of questions/comments generated by the Contractors who attended the Pre-Bid Conference. Any response that the Engineer considers necessary as a result of the questions/comments raised at the conference shall be included in an Addendum.

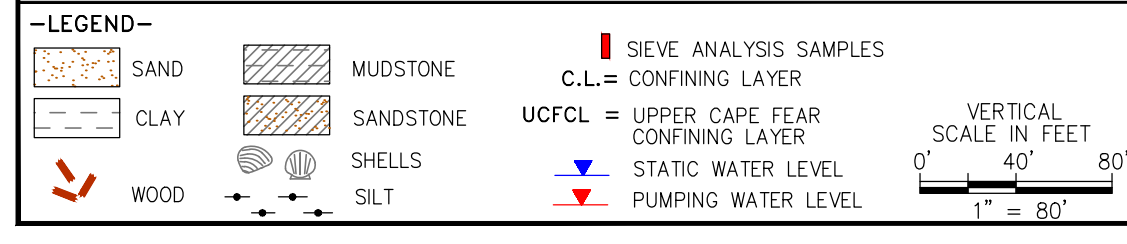
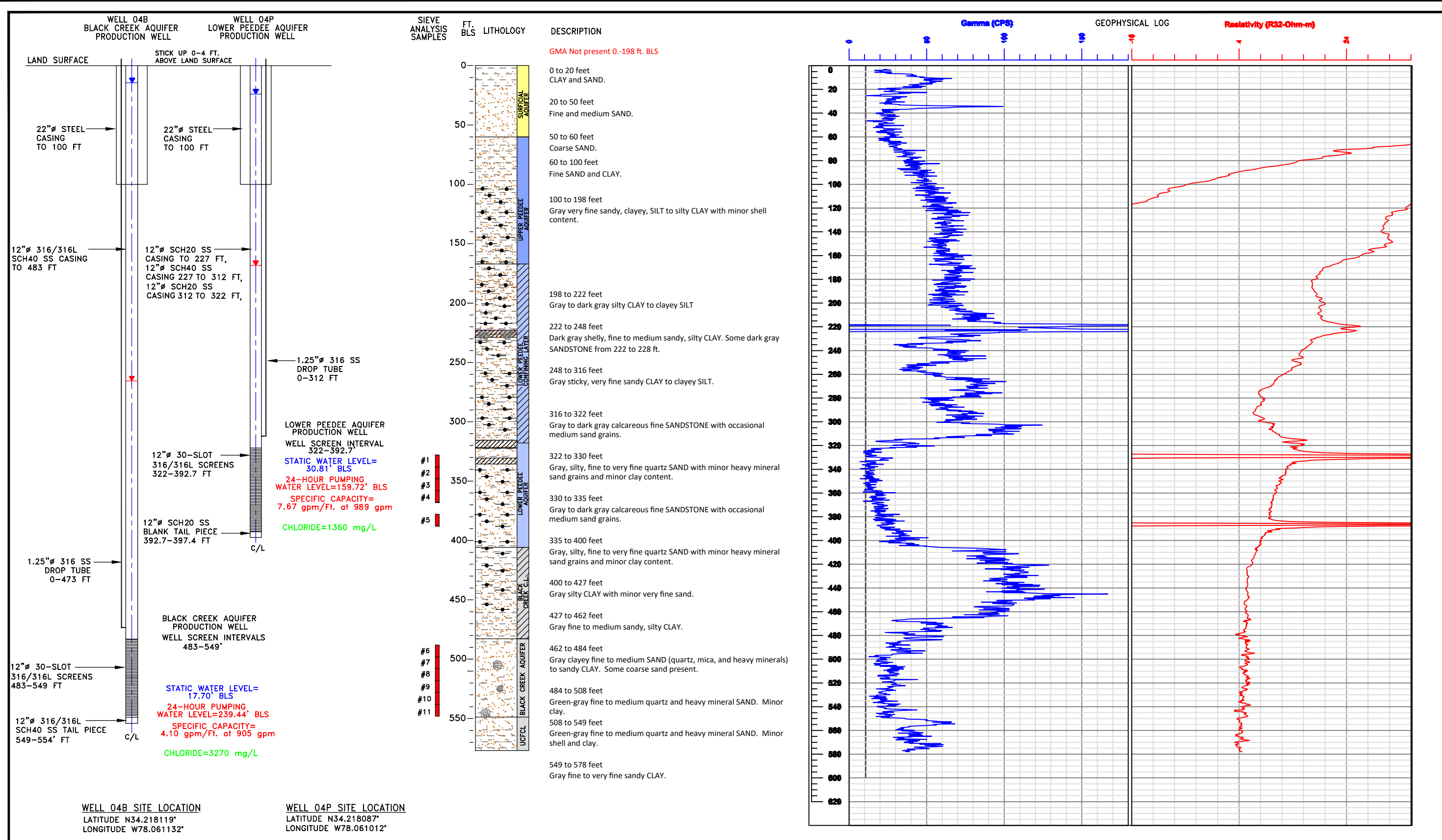
- a. What is the Bid Quantity for Item 35? *Estimated quantity has been added to the Bid Form and the updated document is included in the Addendum.*
- b. What are the painting requirements for the project? *Specification Section 09900 – Painting has been included in the Addendum.*
- c. Will H2GO provide an electrical scope and schedule for the work they are furnishing at the well sites? *Electrical equipment and work provided by H2GO is summarized in Section 01100 – Summary of Work. A schedule for the subject work will be provided to the awarded Contractor.*
- d. Are drill logs for the existing wells available for information? *Well Construction Records and Well Lithology for Wells 04P, 04B, 05P, & 05B will be provided in the Addendum for reference.*
- e. Is HDPE an alternative for Fusible PVC for the Horizontal Directional Drills (HDDs)? *Fusible PVC is the design basis for the project and HDPE is not being considered as an alternate at this time.*
- f. Will the earlier completion time of Milestone 3 if achieved affect the completion time for the remaining Milestones? *No, should the earlier completion time for Milestone 3 be achieved, it will not affect the completion dates for the remaining Milestones.*
- g. Will arrangements be made for a visit to the Well sites and access drive corridor? *Bidders shall notify Wooten if they are interested in scheduling a site visit with H2GO. H2GO can accommodate 2 people max. from the bidders firm for a visit.*

ATTENDANCE SHEET FOR PRE-BID MEETING
 RAW WATER SYSTEM IMPROVEMENTS
 BRUNSWICK REGIONAL WATER AND SEWER H2GO

DATE/TIME: Tuesday, August 27, 2024 @ 10:00 A.M.

TWC No. 3081-BD

NAME	COMPANY	PHONE #	EMAIL
Jeff Price	TACO	919-734-8400	jprice@taloving.com
Walter J Carmichael	Carmichael Const Co Inc	910 457 6510	WalterJ.Carmichael@cc.com WalterJCarmichael.com
RANDY HUDSON	Charles R. Underwood	919-775-2463	RHUDSON@CRUPumps.com
Jonathan Kamionka	Bill's Well Drilling	910 488 3740	office@billswelldrilling.com
Jaime Venegas	A.C. Schultes of Carolina	(910) 285-7465	connie@acschultes.com
Jeanany Bautista	A-C Schultes of Carolina	910-285-7465	jeanany@acschultes.com
S. KEWt SKIPPAGE	RH MOORE COMPANY, INC.	843-650-2157	kentskipper@hmoorecompany.com
Nick Watson	Terrahawk Civil	910-770-4575	estimating@terrahawknc.com
Bob Walker	H2GO	910-279-4581	bob bob.walker@h2gonc.gov
Scott Lewis	H2GO	910-371-9949	Scott.lewis@h2gonc.gov
Adrianna Weber	H2GO	910-616-8767	adrianna.weber@h2gonc.gov
Robert Taylor	H2GO	(910) 945 7740	Robert.Taylor@h2gonc.gov



WELLS 04B & 04P LITHOLOGY AND PRODUCTION WELL DETAILS

BRUNSWICK REGIONAL WATER & SEWER H2GO

FIGURE 3
 DATE: 12/10/21
 FILE: DWGS/50524/fig 3
 PROJECT NO. 50524



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WELL CONSTRUCTION RECORD (GW-1)

I. Well Contractor Information:

Larry Skipper

Well Contractor Name

2483-A

NC Well Contractor Certification Number

Skipper's Well Drilling & Pump Service, Inc.

Company Name

2. Well Construction Permit #:

List all applicable well construction permits (i.e. UIC, County, State, Variance, etc.)

3. Well Use (check well use):

Water Supply Well:

- Agricultural Municipal/Public
- Geothermal (Heating/Cooling Supply) Residential Water Supply (single)
- Industrial/Commercial Residential Water Supply (shared)
- Irrigation

Non-Water Supply Well:

- Monitoring Recovery

Injection Well:

- Aquifer Recharge Groundwater Remediation
- Aquifer Storage and Recovery Salinity Barrier
- Aquifer Test Stormwater Drainage
- Experimental Technology Subsidence Control
- Geothermal (Closed Loop) Tracer
- Geothermal (Heating/Cooling Return) Other (explain under #21 Remarks)

4. Date Well(s) Completed: _____ Well ID# #4 PD

5a. Well Location:

Brunswick H2Go

Facility/Owner Name

Facility ID# (if applicable)

2551 Tara Forest Dr., Leland NC

Physical Address, City, and Zip

Brunswick

County

Parcel Identification No. (PIN)

5b. Latitude and longitude in degrees/minutes/seconds or decimal degrees: (if well field, one lat/long is sufficient)

34°13'15" N 78°3'40" W

6. Is(arc) the well(s) Permanent or Temporary

7. Is this a repair to an existing well: Yes or No

If this is a repair, fill out known well construction information and explain the nature of the repair under #21 remarks section or on the back of this form.

8. For Geoprobe/DPT or Closed-Loop Geothermal Wells having the same construction, only 1 GW-1 is needed. Indicate TOTAL NUMBER of wells drilled: _____

9. Total well depth below land surface: 405 (ft.)
For multiple wells list all depths if different (example- 3@200' and 2@100')

10. Static water level below top of casing: _____ (ft.)
If water level is above casing, use "+"

11. Borehole diameter: 22 (in.)

12. Well construction method: _____
(i.e. auger, rotary, cable, direct push, etc.)

FOR WATER SUPPLY WELLS ONLY:

13a. Yield (gpm) _____ Method of test: _____

13b. Disinfection type: _____ Amount: _____

For Internal Use Only:

14. WATER ZONES

FROM	TO	DESCRIPTION
322 ft.	392 ft.	Sand and Rock
ft.	ft.	

15. OUTER CASING (for multi-cased wells) OR LINER (if applicable)

FROM	TO	DIAMETER	THICKNESS	MATERIAL
+1 ft.	100 ft.	22 in.	375	Black Steel

16. INNER CASING OR TUBING (geothermal closed-loop)

FROM	TO	DIAMETER	THICKNESS	MATERIAL
+3 ft.	322 ft.	12 in.	Sch 20	SS
ft.	ft.	in.		

17. SCREEN

FROM	TO	DIAMETER	SLOT SIZE	THICKNESS	MATERIAL
322 ft.	392 ft.	12 in.	30	Sch 40	SS
ft.	ft.	in.			

18. GROUT

FROM	TO	MATERIAL	EMPLACEMENT METHOD & AMOUNT
0 ft.	293 ft.	Cement	Pump by trimie
ft.	ft.		
ft.	ft.		

19. SAND/GRAVEL PACK (if applicable)

FROM	TO	MATERIAL	EMPLACEMENT METHOD
302 ft.	405 ft.	#2 Gravel	Trimie Line
ft.	ft.		

20. DRILLING LOG (attach additional sheets if necessary)

FROM	TO	DESCRIPTION (color, hardness, soil/rock type, grain size, etc.)
ft.	ft.	See Attached
ft.	ft.	
ft.	ft.	
ft.	ft.	
ft.	ft.	
ft.	ft.	
ft.	ft.	

21. REMARKS

22. Certification:

Signature of Certified Well Contractor: Larry W Skipper Date: October 25, 2021

By signing this form, I hereby certify that the well(s) was (were) constructed in accordance with 15A NCAC 02C .0100 or 15A NCAC 02C .0200 Well Construction Standards and that a copy of this record has been provided to the well owner.

23. Site diagram or additional well details:

You may use the back of this page to provide additional well site details or well construction details. You may also attach additional pages if necessary.

SUBMITTAL INSTRUCTIONS

24a. For All Wells: Submit this form within 30 days of completion of well construction to the following:

Division of Water Resources, Information Processing Unit,
1617 Mail Service Center, Raleigh, NC 27699-1617

24b. For Injection Wells: In addition to sending the form to the address in 24a above, also submit one copy of this form within 30 days of completion of well construction to the following:

Division of Water Resources, Underground Injection Control Program,
1636 Mail Service Center, Raleigh, NC 27699-1636

24c. For Water Supply & Injection Wells: In addition to sending the form to the address(es) above, also submit one copy of this form within 30 days of completion of well construction to the county health department of the county where constructed.

WELL CONSTRUCTION RECORD (GW-1)

1. Well Contractor Information:

Larry Skipper

Well Contractor Name

2483-A

NC Well Contractor Certification Number

Skipper's Well Drilling & Pump Service, Inc.

Company Name

2. Well Construction Permit #:

List all applicable well construction permits (i.e. UIC, County, State, Variance, etc.)

3. Well Use (check well use):

Water Supply Well:

- Agricultural Municipal/Public
 Geothermal (Heating/Cooling Supply) Residential Water Supply (single)
 Industrial/Commercial Residential Water Supply (shared)
 Irrigation

Non-Water Supply Well:

- Monitoring Recovery

Injection Well:

- Aquifer Recharge Groundwater Remediation
 Aquifer Storage and Recovery Salinity Barrier
 Aquifer Test Stormwater Drainage
 Experimental Technology Subsidence Control
 Geothermal (Closed Loop) Tracer
 Geothermal (Heating/Cooling Return) Other (explain under #21 Remarks)

4. Date Well(s) Completed: _____ Well ID# #4 BC

5a. Well Location:

Brunswick H2Go

Facility/Owner Name

Facility ID# (if applicable)

2551 Tara Forest Dr., Leland NC

Physical Address, City, and Zip

Brunswick

County

Parcel Identification No. (PIN)

5b. Latitude and longitude in degrees/minutes/seconds or decimal degrees:
(if well field, one lat/long is sufficient)

34°13'5" N 78°3'40" W

6. Is(are) the well(s) Permanent or Temporary

7. Is this a repair to an existing well: Yes or No
If this is a repair, fill out known well construction information and explain the nature of the repair under #21 remarks section or on the back of this form.

8. For Geoprobe/DPT or Closed-Loop Geothermal Wells having the same construction, only 1 GW-1 is needed. Indicate TOTAL NUMBER of wells drilled: _____

9. Total well depth below land surface: 554 (ft.)
For multiple wells list all depths if different (example- 3@200' and 2@100')

10. Static water level below top of casing: _____ (ft.)
If water level is above casing, use "+"

11. Borehole diameter: 22 (in.)

12. Well construction method: _____
(i.e. auger, rotary, cable, direct push, etc.)

FOR WATER SUPPLY WELLS ONLY:

13a. Yield (gpm) _____ Method of test: _____

13b. Disinfection type: _____ Amount: _____

For Internal Use Only:

14. WATER ZONES

FROM	TO	DESCRIPTION
483 ft.	589 ft.	Sand and Rock
ft.	ft.	

15. OUTER CASING (for multi-cased wells) OR LINER (if applicable)

FROM	TO	DIAMETER	THICKNESS	MATERIAL
+1 ft.	100 ft.	22 in.	375	Black Steel

16. INNER CASING OR TUBING (geothermal closed-loop)

FROM	TO	DIAMETER	THICKNESS	MATERIAL
+3 ft.	463 ft.	12 in.	Sch 20	SS 316
ft.	ft.	in.		

17. SCREEN

FROM	TO	DIAMETER	SLOT SIZE	THICKNESS	MATERIAL
483 ft.	549 ft.	12 in.	30	Sch 40	SS
ft.	ft.	in.			

18. GROUT

FROM	TO	MATERIAL	EMPLACEMENT METHOD & AMOUNT
0 ft.	453 ft.	Cement	Pump by trimie
453 ft.	463 ft.	Bentonite Seal	
ft.	ft.		

19. SAND/GRAVEL PACK (if applicable)

FROM	TO	MATERIAL	EMPLACEMENT METHOD
463 ft.	559 ft.	#2 Gravel	Trimie Line
ft.	ft.		

20. DRILLING LOG (attach additional sheets if necessary)

FROM	TO	DESCRIPTION (color, hardness, soil/rock type, grain size, etc.)
ft.	ft.	
ft.	ft.	
ft.	ft.	
ft.	ft.	
ft.	ft.	
ft.	ft.	
ft.	ft.	

21. REMARKS

22. Certification:

Signature of Certified Well Contractor: Larry W Skipper Date: October 25, 2021

By signing this form, I hereby certify that the well(s) was (were) constructed in accordance with 15A NCAC 02C .0100 or 15A NCAC 02C .0200 Well Construction Standards and that a copy of this record has been provided to the well owner.

23. Site diagram or additional well details:

You may use the back of this page to provide additional well site details or well construction details. You may also attach additional pages if necessary.

SUBMITTAL INSTRUCTIONS

24a. For All Wells: Submit this form within 30 days of completion of well construction to the following:

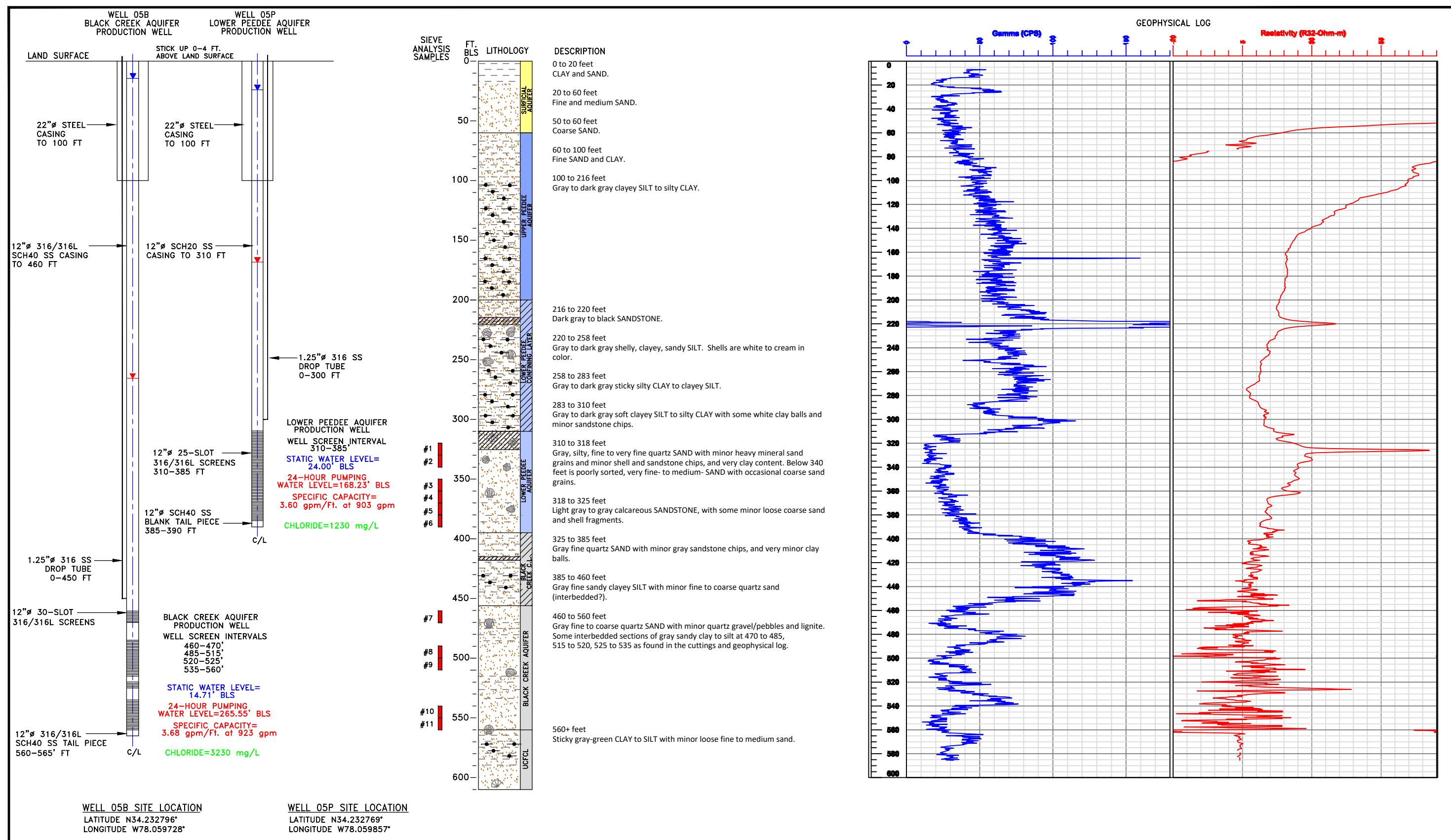
Division of Water Resources, Information Processing Unit,
1617 Mail Service Center, Raleigh, NC 27699-1617

24b. For Injection Wells: In addition to sending the form to the address in 24a above, also submit one copy of this form within 30 days of completion of well construction to the following:

Division of Water Resources, Underground Injection Control Program,
1636 Mail Service Center, Raleigh, NC 27699-1636

24c. For Water Supply & Injection Wells: In addition to sending the form to the address(es) above, also submit one copy of this form within 30 days of completion of well construction to the county health department of the county where constructed.

J:\505\505-24\production wells 05b and 05p_sept 2021\50524_wells 05b and 05p.dwg



-LEGEND-

	SAND		MUDSTONE		SIEVE ANALYSIS SAMPLES
	CLAY		SANDSTONE		C.L. = CONFINING LAYER
	WOOD		SHELLS		UCFCL = UPPER CAPE FEAR CONFINING LAYER
			SILT		STATIC WATER LEVEL
					PUMPING WATER LEVEL

VERTICAL SCALE IN FEET
 0' 40' 80'
 1" = 80'

WELLS 05B & 05P LITHOLOGY AND PRODUCTION WELL DETAILS

BRUNSWICK REGIONAL WATER & SEWER H2GO

FIGURE 3
 DATE: 9/3/21
 FILE: DWGS/50524/fig 3
 PROJECT NO. 50524



WELL CONSTRUCTION RECORD (GW-1)

For Internal Use Only:

I. Well Contractor Information:

Larry W. Skipper
 Well Contractor Name
2481-A

NC Well Contractor Certification Number
Skipper's Well Drilling & Pump Service, Inc.
 Company Name

2. Well Construction Permit #: _____
 List all applicable well construction permits (i.e. UIC, County, State, Variance, etc.)

3. Well Use (check well use):

Water Supply Well:

Agricultural Municipal/Public
 Geothermal (Heating/Cooling Supply) Residential Water Supply (single)
 Industrial/Commercial Residential Water Supply (shared)
 Irrigation

Non-Water Supply Well:

Monitoring Recovery

Injection Well:

Aquifer Recharge Groundwater Remediation
 Aquifer Storage and Recovery Salinity Barrier
 Aquifer Test Stormwater Drainage
 Experimental Technology Subsidence Control
 Geothermal (Closed Loop) Tracer
 Geothermal (Heating/Cooling Return) Other (explain under #21 Remarks)

4. Date Well(s) Completed: _____ **Well ID#** SPD

5a. Well Location:
Brunswick H2GO
 Facility/Owner Name Facility ID# (if applicable)

980 Nuns Trail, Leland, NC 28451
 Physical Address, City, and Zip

Brunswick
 County Parcel Identification No. (PIN)

5b. Latitude and longitude in degrees/minutes/seconds or decimal degrees:
 (if well field, one lat/long is sufficient)

34.32769° N **78.059857°** W

6. Is(are) the well(s) Permanent or Temporary

7. Is this a repair to an existing well: Yes or No
 If this is a repair, fill out known well construction information and explain the nature of the repair under #21 remarks section or on the back of this form.

8. For Geoprobe/DPT or Closed-Loop Geothermal Wells having the same construction, only 1 GW-1 is needed. Indicate TOTAL NUMBER of wells drilled: _____

9. Total well depth below land surface: 390 (ft.)
 For multiple wells list all depths if different (example- 3@200' and 2@100')

10. Static water level below top of casing: 24.00 (ft.)
 If water level is above casing, use "+"

11. Borehole diameter: 22 (in.)

12. Well construction method: Rotary
 (i.e. auger, rotary, cable, direct push, etc.)

FOR WATER SUPPLY WELLS ONLY:

13a. Yield (gpm) _____ **Method of test:** _____

13b. Disinfection type: _____ **Amount:** _____

14. WATER ZONES		
FROM	TO	DESCRIPTION
ft.	ft.	
ft.	ft.	

15. OUTER CASING (for multi-cased wells) OR LINER (if applicable)				
FROM	TO	DIAMETER	THICKNESS	MATERIAL
+1 ft.	100 ft.	22 in.		Steel

16. INNER CASING OR TUBING (geothermal closed-loop)				
FROM	TO	DIAMETER	THICKNESS	MATERIAL
+3 ft.	310 ft.	12 in.	SCH 20	SS 316
385 ft.	390 ft.	12 in.	SCH 20	SS 316

17. SCREEN					
FROM	TO	DIAMETER	SLOT SIZE	THICKNESS	MATERIAL
310 ft.	385 ft.	12 in.	30	SCH 40	SS
ft.	ft.	in.			

18. GROUT			
FROM	TO	MATERIAL	EMPLACEMENT METHOD & AMOUNT
0 ft.	430 ft.	Cement	Trimmie
420 ft.	430 ft.	bent. seal	Trimmie
ft.	ft.		

19. SAND/GRAVEL PACK (if applicable)			
FROM	TO	MATERIAL	EMPLACEMENT METHOD
290 ft.	385 ft.	#2 Gravel	Trimmie
ft.	ft.		

20. DRILLING LOG (attach additional sheets if necessary)		
FROM	TO	DESCRIPTION (color, hardness, soil/rock type, grain size, etc.)
ft.	ft.	See Attached
ft.	ft.	
ft.	ft.	
ft.	ft.	
ft.	ft.	
ft.	ft.	
ft.	ft.	

21. REMARKS

22. Certification:
Larry W Skipper 11/2/2021
 Signature of Certified Well Contractor Date

By signing this form, I hereby certify that the well(s) was (were) constructed in accordance with 15A NCAC 02C .0100 or 15A NCAC 02C .0200 Well Construction Standards and that a copy of this record has been provided to the well owner.

23. Site diagram or additional well details:
 You may use the back of this page to provide additional well site details or well construction details. You may also attach additional pages if necessary.

SUBMITTAL INSTRUCTIONS

24a. For All Wells: Submit this form within 30 days of completion of well construction to the following:

Division of Water Resources, Information Processing Unit,
 1617 Mail Service Center, Raleigh, NC 27699-1617

24b. For Injection Wells: In addition to sending the form to the address in 24a above, also submit one copy of this form within 30 days of completion of well construction to the following:

Division of Water Resources, Underground Injection Control Program,
 1636 Mail Service Center, Raleigh, NC 27699-1636

24c. For Water Supply & Injection Wells: In addition to sending the form to the address(es) above, also submit one copy of this form within 30 days of completion of well construction to the county health department of the county where constructed.

0-20 Feet

20-60 Feet

Fine and medium sand

50-60 Feet

Coarse sand

60-100 Feet

Fine sand and clay

100-158 Feet

Gray very fine sandy, clayey, SILY with minor shell content

158 -190 Feet

Gray very fine sandy, silty, clay with increased shell content.
Some granule-sized sandstone fragments noted.

190-234 Feet

Very dark gray to gray, very fine sandy silt to silty clay.

234-238 Feet.

Gray to dark gray calcareous fine sandstone with minor
pyrite and occasional medium sand grains.

238-328 Feet

Very dark gray to gray, very fine sandy silt. Softer and increased shell from
217 to 219 feet. From 219 to 225 feet depth is dark gray mudstone grading with
depth to calcareous fine sandstone with minor pyrite and occasional
medium sand grains

328-330 Feet

Gray to dark gray calcareous fine sandstone with minor pyrite and
occasional medium sand grains. Minor shell fragments.

330-415 Feet

Gray, silty, fine to very fine quartz sand with minor heavy mineral sand
grains and minor clay content and minor shell. Below 340 feet is poorly sorted,
very fine- to medium- sand with occasional coarse sand grains

415-418 Feet

Gray to dark gray calcareous fine sandstone with occasional medium
sand grains

418-427 Feet

Gray, silty, fine to very fine quartz sand with minor heavy mineral sand grains
and minor clay content.

427-450 Feet

Gray fine to medium sandy, silty clay.

450-560 Feet

Gray silty medium to fine quartz sand with occasional sandstone rock fragments. Some zones seem to be alternating sand and clay beds. Thicker and cleaner sand beds seem to occur from 490 to 515 feet, and 525 to 560 feet depth.

560-580 Feet

Light gray, clayey, silty, fine to very fine quartz sand with minor heavy mineral sand and minor shell content.

WELL CONSTRUCTION RECORD (GW-1)

1. Well Contractor Information:

Larry Skipper
 Well Contractor Name
2481-A
 NC Well Contractor Certification Number
Skippers Well Drilling & Pump Service Inc.
 Company Name

2. Well Construction Permit #: _____
 List all applicable well construction permits (i.e. UIC, County, State, Variance, etc.)

3. Well Use (check well use):

Water Supply Well:

Agricultural Municipal/Public
 Geothermal (Heating/Cooling Supply) Residential Water Supply (single)
 Industrial/Commercial Residential Water Supply (shared)
 Irrigation

Non-Water Supply Well:

Monitoring Recovery

Injection Well:

Aquifer Recharge Groundwater Remediation
 Aquifer Storage and Recovery Salinity Barrier
 Aquifer Test Stormwater Drainage
 Experimental Technology Subsidence Control
 Geothermal (Closed Loop) Tracer
 Geothermal (Heating/Cooling Return) Other (explain under #21 Remarks)

4. Date Well(s) Completed: _____ **Well ID#** 5BC

5a. Well Location:
Brunswick H2GO
 Facility/Owner Name Facility ID# (if applicable)
980 Nuns Trail, Leland, NC 28451
 Physical Address, City, and Zip
Brunswick
 County Parcel Identification No. (PIN)

5b. Latitude and longitude in degrees/minutes/seconds or decimal degrees:
 (if well field, one lat/long is sufficient)

34.232796° N **78.059728°** W

6. Is(are) the well(s) **Permanent** or **Temporary**

7. Is this a repair to an existing well: **Yes** or **No**
 If this is a repair, fill out known well construction information and explain the nature of the repair under #21 remarks section or on the back of this form.

8. For Geoprobe/DPT or Closed-Loop Geothermal Wells having the same construction, only 1 GW-1 is needed. Indicate TOTAL NUMBER of wells drilled: _____

9. Total well depth below land surface: 565 (ft.)
 For multiple wells list all depths if different (example- 3@200' and 2@100')

10. Static water level below top of casing: 14.71 (ft.)
 If water level is above casing, use "+"

11. Borehole diameter: 22 (in.)

12. Well construction method: Rotary
 (i.e. auger, rotary, cable, direct push, etc.)

FOR WATER SUPPLY WELLS ONLY:

13a. Yield (gpm) _____ **Method of test:** _____

13b. Disinfection type: _____ **Amount:** _____

For Internal Use Only:

14. WATER ZONES					
FROM	TO	DESCRIPTION			
ft.	ft.				
ft.	ft.				
15. OUTER CASING (for multi-cased wells) OR LINER (if applicable)					
FROM	TO	DIAMETER	THICKNESS	MATERIAL	
ft.	ft.	in.			
16. INNER CASING OR TUBING (geothermal closed-loop)					
FROM	TO	DIAMETER	THICKNESS	MATERIAL	
ft.	ft.	in.		See Attached	
ft.	ft.	in.			
17. SCREEN					
FROM	TO	DIAMETER	SLOT SIZE	THICKNESS	MATERIAL
ft.	ft.	in.			
ft.	ft.	in.			See Attached
18. GROUT					
FROM	TO	MATERIAL	EMPLACEMENT METHOD & AMOUNT		
ft.	ft.				
ft.	ft.		See Attached		
ft.	ft.				
19. SAND/GRAVEL PACK (if applicable)					
FROM	TO	MATERIAL	EMPLACEMENT METHOD		
ft.	ft.				
ft.	ft.		See Attached		
20. DRILLING LOG (attach additional sheets if necessary)					
FROM	TO	DESCRIPTION (color, hardness, soil/rock type, grain size, etc.)			
ft.	ft.	See Attached			
ft.	ft.				
ft.	ft.				
ft.	ft.				
ft.	ft.				
ft.	ft.				
ft.	ft.				
21. REMARKS					

22. Certification:
Larry W Skipper 11/2/2021
 Signature of Certified Well Contractor Date

By signing this form, I hereby certify that the well(s) was (were) constructed in accordance with 15A NCAC 02C .0100 or 15A NCAC 02C .0200 Well Construction Standards and that a copy of this record has been provided to the well owner.

23. Site diagram or additional well details:
 You may use the back of this page to provide additional well site details or well construction details. You may also attach additional pages if necessary.

SUBMITTAL INSTRUCTIONS

24a. For All Wells: Submit this form within 30 days of completion of well construction to the following:

Division of Water Resources, Information Processing Unit,
 1617 Mail Service Center, Raleigh, NC 27699-1617

24b. For Injection Wells: In addition to sending the form to the address in 24a above, also submit one copy of this form within 30 days of completion of well construction to the following:

Division of Water Resources, Underground Injection Control Program,
 1636 Mail Service Center, Raleigh, NC 27699-1636

24c. For Water Supply & Injection Wells: In addition to sending the form to the address(es) above, also submit one copy of this form within 30 days of completion of well construction to the county health department of the county where constructed.

Well 5 BC

Outer Casing

From	To	Diameter	Thickness	Material
1	100 Ft.	22In.	SCH 375	Steel

Inner Casing

3	460 Ft.	12 In.	SCH 40	SS 316
460	485 Ft.	12 In.	SCH 40	SS 316
515	520 Ft.	12 In.	SCH 40	SS 316
525	560 Ft.	12 In.	SCH 40	SS 316

Screen

			Slot Size	
460	470 Ft.	12 In.	30 SCH 40	SS 316
485	515 Ft.	12 In.	30 SCH 40	SS 316
520	525 Ft.	12 In.	30 SCH 40	SS 316

Grout

0	420 Ft.			Cement
420	430 Ft.			Bentonite Seal

	Material	Emplacement Method
Sand/ Gravel Pack		
430 565 Ft.	#2 Gravel	Trimmie Line

BID FORM

PROJECT: Raw Water Supply Improvements

BID FROM: _____

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ARTICLE 1 BID RECIPIENT

1.01 This Bid is Submitted To:

Brunswick Regional Water and Sewer H2GO
146 Gregory Road, N.E.
Belville, NC 28451

1.02 Undersigned bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with the Owner in the form included in the Bidding Documents to perform the Work as specified or indicated in the Bidding Documents for the prices and within the times indicated in the Bid and in accordance with the other terms and conditions of the Bidding Documents.

ARTICLE 2 BIDDER’S ACKNOWLEDGEMENTS

2.01 Bidder accepts all of the terms and conditions of the Advertisement and Instructions to Bidders, including without limitation those dealing with the disposition of Bid security. This Bid will remain subject to acceptance for 60 days after the Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of Owner.

ARTICLE 3 BIDDER’S REPRESENTATIONS

3.01 In submitting this Bid, Bidder represents that:

A. Bidder has examined and carefully studied the Bidding Documents, the other related data identified in the Bidding Documents, and the following Addenda, receipt of which is hereby acknowledged.

Addenda: _____

B. Bidder has visited the Site and become familiar with and is satisfied as to the general, local and Site conditions that may affect cost, progress, and performance of the Work.

- C. Bidder is familiar with and is satisfied as to federal, state and local Laws and Regulations that may affect cost, progress, and performance, of the Work.
- D. Bidder has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or contiguous to the Site and all drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site (except Underground Facilities) which have been identified in SC-4.02, and (2) reports and drawings of Hazardous Environmental Conditions, if any, that have been identified in SC-4.06 as containing reliable "technical data".
- E. Bidder has considered the information known to Bidder; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and the Site-related reports and drawings identified in the Bidding Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder, including applying the specific means, methods, techniques, sequences, and procedures of construction expressly required by the Bidding Documents; and (3) Bidder's safety precautions and programs.
- F. Based on the information and observations referred to in Paragraph 3.01.E above, Bidder does not consider that any further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of this Bid for performance of the Work at the price(s) bid and within the times and in accordance with the other terms and conditions of the Bidding Documents.
- G. Bidder is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents.
- H. Bidder has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents, and the written resolution thereof by Engineer is acceptable to Bidder.
- I. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance of the Work for which this Bid is submitted.
- J. Bidder will submit written evidence of its authority to do business in the state where the Project is located not later than the date of its execution of the Agreement.

ARTICLE 4 BIDDER'S CERTIFICATION

4.01 Bidder further represents that:

- A. This Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any agreement or rules of any group, association, organization or corporation;
- B. Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid;
- C. Bidder has not solicited or induced any individual or entity to refrain from bidding; and
- D. Bidder has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract. For the purposes of this Paragraph 4.01.D:

1. "corrupt practice" means the offering, giving, receiving, or soliciting of any thing of value likely to influence the action of a public official in the bidding process;
2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process to the detriment of Owner, (b) to establish bid prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;
3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish bid prices at artificial, non-competitive levels; and
4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

ARTICLE 5 BASIS OF BID

5.01 Bidder will complete the Work in accordance with the Contract Documents for the following price(s):

- A. For Unit Price Work, an amount equal to the sum of the established unit price for each separately identified item of Unit Price Work times the estimated quantity of that item as indicated below.

THIS AREA INTENTIONALLY LEFT BLANK

Attachment to Addendum No. 1

Item No.	Description	Unit	Estimated Quantity	Unit Price	Total Estimated Price
1	Mobilization	LS	1		
2	Soil Testing Allowance	LS	1	\$35,000.00	\$35,000.00
3	Sediment and Erosion Control	LS	1		
4	6" Perforated Underdrain	LF	6,000		
5	Clearing and Grubbing	AC	13.5		
6	Clearing Only	AC	5.3		
7	Earthwork/Grading for Access Road and Well Sites	LS	1		
8	Seeding and Mulching	AC	2.5		
9	Undercut of Unsuitable Material- Roadway & Well Sites	CY	19,000		
10	12-inch CABC Stone- Access Road	SY	24,900		
11	6-inch CABC Stone- Temporary Access	SY	250		
12	4-inch CABC Stone- Access Road Shoulder	SY	5,000		
13	Woven Geotextile Fabric (Type 4B)- Access Road & Well Sites	SY	28,500		
14	Signage-Access Road	EA	1		
15	Removable Bollards	EA	3		
16	20' Wide Swing Gate- Access Road	EA	1		
17	15" HP Storm Drain Pipe	LF	124		
18	18" HP Storm Drain Pipe	LF	197		
19	24" HP Storm Drain Pipe	LF	98		
20	30" HP Storm Drain Pipe	LF	99		
21	48" HP Storm Drain Pipe	LF	34		
22	60" HP Storm Drain Pipe	LF	46		
23	71"x 47" Dual Arch CMP Culvert	LF	48		
24	12" PVC C900 Restrained Joint Raw Water Main	LF	350		
25	18" PVC C900 Raw Water Main	LF	3,471		
26	18" PVC C900 Restrained Joint Raw Water Main	LF	3,929		
27	Pre-Cast NCDOT Concrete Endwall	EA	2		
28	Class A Rip-Rap	SY	24		
29	Class B Rip-Rap	SY	48		

Attachment to Addendum No. 1

Item No.	Description	Unit	Estimated Quantity	Unit Price	Total Estimated Price
30	Class 1 Rip-Rap	SY	92		
31	Class 2 Rip-Rap	SY	154		
32	Trench Rock Excavation	CY	100		
33	30" Steel Encasement with 18" Restrained Joint Raw Water Main by Open Cut	LF	45		
34	Asphalt Pavement Patching	SY	150		
35	Asphalt Driveway Repair	SY	90		
36	Gravel Driveway Repair	SY	100		
37	Concrete Driveway Repair	SY	150		
38	Undercut of Unstable Pipe Foundation	CY	300		
39	Select Backfill	CY	600		
40	12" Raw Water Valve and Box	EA	2		
41	18" Raw Water Valve and Box	EA	12		
42	Air Release Valve in Manhole	EA	5		
43	Offset Air Release Valve in Manhole	EA	2		
44	18" x 18" Junction Box for Fiber Optic	EA	26		
45	Concrete Anti-Seep Collar	EA	18		
46	HDPE to PVC Transition at 70" x 30" Duke Energy Junction Structure	EA	68		
47	18" Fusible PVC C900 Horizontal Directional Drill Raw Water (Sta. 37+75 to 56+75)	LS	1		
48	18" Fusible PVC C900 Horizontal Directional Drill Raw Water (Sta. 102+67 to 122+27)	LS	1		
49	18" Fusible PVC C900 Horizontal Directional Drill Raw Water (Sta. 123+41 to 142+72)	LS	1		
50	18" Fusible PVC C900 Horizontal Directional Drill Raw Water (Sta. 153+48 to 171+53)	LS	1		
51	18" Fusible PVC C900 Horizontal Directional Drill Raw Water (Sta. 178+47 to 190+95)	LS	1		
52	2x 4" SDR 13.5 HDPE Electrical Conduit by HDD	LS	1		
53	2x 4" SDR 13.5 HDPE Electrical Conduit by Open Cut	LS	1		

Attachment to Addendum No. 1

Item No.	Description	Unit	Estimated Quantity	Unit Price	Total Estimated Price
54	4x 4" SDR 13.5 HDPE Electrical Conduit by HDD	LS	1		
55	4x 4" SDR 13.5 HDPE Electrical Conduit by Open Cut	LS	1		
56	1 x 2" SDR 13.5 HDPE Fiber Optic Conduit by HDD	LS	1		
57	1 x 2" SDR 13.5 HDPE Fiber Optic Conduit by Open Cut	LS	1		
58	Restrained Joint DI Raw Water Fittings	LB	24,830		
59	Concrete Driveway Apron	SY	40		
<u>Existing Well Sites 1-5</u>					
60	Lower Well 01P Submersible Pump	VLF	20		
61	Lower Well 02P Submersible Pump	VLF	78		
62	Lower Well 03P Submersible Pump	VLF	55		
63	Lower Well 04P Submersible Pump	VLF	75		
64	Lower Well 05P Submersible Pump	VLF	50		
<u>Well Site No. 6</u>					
65	Well 06P – Pilot Hole and Geophysical Logging	VLF	403		
66	Well 06P – 22-inch Outer Casing	VLF	100		
67	Well 06P – 12-inch Inner Casing	VLF	313		
68	Well 06P – 1.25-inch Water Level Pipe	VLF	379		
69	Well 06P – 12-inch Well Screen	VLF	75		
70	Well 06P – 12-inch Tailpiece/Cellar	VLF	5		
71	Well 06P - 24-Hour Testing, Water Quality Sampling, & Driller's Report	LS	1		
72	Well 06B - Pilot Hole and Geophysical Logging	VLF	580		
73	Well 06B – 22-inch Outer Casing	VLF	100		
74	Well 06B – 12-inch Inner Casing	VLF	463		
75	Well 06B – 1.25-inch Water Level Pipe	VLF	454		
76	Well 06B – 12-inch Well Screen	VLF	100		
77	Well 06B – 12-inch Tailpiece/Cellar	VLF	5		
78	Well 06B - 24-Testing, Water Quality Sampling, & Driller's Report	LS	1		

Attachment to Addendum No. 1

Item No.	Description	Unit	Estimated Quantity	Unit Price	Total Estimated Price
79	Well Site 6 Submersible Pumps Installation, Well Head Completion, Electrical Building, Site Work, Piping and Grading	LS	1		
<u>Well Site No. 7</u>					
80	Well 07P - Pilot Hole and Geophysical Logging	VLF	415		
81	Well 07P – 22-inch Outer Casing	VLF	100		
82	Well 07P – 12-inch Inner Casing	VLF	318		
83	Well 07P – 1.25-inch Water Level Pipe	VLF	309		
84	Well 07P – 12-inch Well Screen	VLF	75		
85	Well 07P – 12-inch Tailpiece/Cellar	VLF	5		
86	Well 07P - 24-Hour Testing, Water Quality Sampling & Driller's Report	LS	1		
87	Well 07B - Pilot Hole and Geophysical Logging	VLF	600		
88	Well 07B – 22-inch Outer Casing	VLF	100		
89	Well 07B – 12-inch Inner Casing	VLF	473		
90	Well 07B – 1.25-inch Water Level Pipe	VLF	464		
91	Well 07B – 12-inch Well Screen	VLF	100		
92	Well 07B – 12-inch Tailpiece/Cellar	VLF	5		
93	Well 07B - 24-Hour Testing, Water Quality Sampling, & Driller's Report	LS	1		
94	Well Site 7 Submersible Pumps Installation, Well Head Completion, Electrical Building, Site Work, Piping and Grading	LS	1		
<u>Well Site No. 8</u>					
95	Well 08P (08P) - Pilot Hole and Geophysical Logging	VLF	420		
96	Well 08P – 22-inch Outer Casing	VLF	100		
97	Well 08P – 12-inch Inner Casing	VLF	325		
98	Well 08P – 1.25-inch Water Level Pipe	VLF	316		
99	Well 08P – 12-inch Well Screen	VLF	75		
100	Well 08P – 12-Inch Tailpiece/Cellar	VLF	5		
101	Well 08P - 24-Hour Testing, Water Quality Sampling and Driller's Report	LS	1		
102	Well 08B - Pilot Hole and Geophysical Logging	VLF	600		

Item No.	Description	Unit	Estimated Quantity	Unit Price	Total Estimated Price
103	Well 08B – 22-inch Outer Casing	VLF	100		
104	Well 08B – 12-inch Inner Casing	VLF	468		
105	Well 08B – 1.25-inch Water Level Pipe	VLF	459		
106	Well 08B – 12-inch Well Screen	VLF	100		
107	Well 08B – 12-inch Tailpiece/Cellar	VLF	5		
108	Well 08B - 24-Hour Testing, Water Quality Sampling and Driller's Report	LS	1		
109	Well Site 8 Submersible Pumps Installation, Well Head Completion, Electrical Building, Site Work, Piping and Grading	LS	1		
TOTAL UNIT PRICE BID					

- B. Unit Prices have been computed in accordance with paragraph 11.03.B of the General Conditions.
- C. Bidder acknowledges that estimated quantities are not guaranteed, and are solely for the purpose of comparison of Bids, and final payment for Unit Price Bid items will be based on actual quantities, determined as provided in the Contract Documents. Determinations of actual quantities and classification are to be made by Engineer as provided in paragraph 9.07 of the General Conditions.
- D. For the following Alternate as selected by the Owner for inclusion in the Project as follows:

Item No.	Description	Unit	Estimated Quantity	Unit Price	Total Alternate Bid Price
110	Bid Alternate No. 1: Incentive to complete Article 6.03.C.3 (i.e. Milestone Event 3) in 180 days in lieu of 240 days	LS	1		

ARTICLE 6 TIME OF COMPLETION

- 6.01 Bidder agrees that the Work will be completed and ready for final payment in accordance with paragraph 14.07 of the General Conditions on or before the dates or within the number of calendar days indicated in the Agreement.
- 6.02 Bidder accepts the provisions of the Agreement as to liquidated damages.
- 6.03 Milestone Dates
- A. The following principal events shall be completed and ready for final payment in accordance with paragraph 14.07 of the General Conditions within the days indicated below after the date when the Contract Time commences to run. In accordance with paragraph 6.02 above as liquidated damages for delay (but not as

penalty) Contractor shall pay Owner the amounts indicated below for each day that expires after the time specified below for completion and readiness for final payment.

- B. The Contractor will be issued a conditional Notice to Proceed prohibiting access to the project beyond Station 37+55 until such time as the USACE wetlands permit is obtained. For planning purposes, the Contractor should assume the permit will be in place by January 15, 2025, at which time the Engineer will issue a non-restrictive Notice to Proceed.

C. Milestone Event

Milestone Event	Calendar Days	Liquidated Damages
1. Complete lowering of Wells 01P through 05P per Section 01100 - Summary of Work – Paragraph 1.03.A.1	45	\$1,000
2. Complete construction ready for operation the 18-inch raw water main (Sta. 0+00 to Sta. 37+55) per Section 01100 – Summary of Work – Paragraphs 1.03.A.2 through 1.03.A.4.	90	\$1,000
3. Complete construction and place into operation the 18-inch raw water main (Sta. 0+00 to Sta. 59+62 and Sta. 100+00 to 102+47) and Well Site 6 per Section 01100 – Summary of Work – Paragraphs 1.03.A.6 through 1.03.A.13.	240**	\$1,000
4. Complete construction and place into operation the 18-inch raw water main (Sta. 102+47 to Sta. 153+11) and Well Site 7 per Section 01100 – Summary of Work – Paragraphs 1.03.A.14 through 1.03.A.16.	300**	\$750
5. Complete construction and place into operation the remaining 18-inch raw water main (Sta. 153+11 to Sta. 203+40) and Well Site 8 per Section 01100 – Summary of Work – Paragraphs 1.03.A.17 through 1.03.A.23.	360**	\$750

** from the date the Contractor receives unrestricted access to the entire project, estimated to occur by January 15, 2025, upon receipt of the USACE wetlands permit.

ARTICLE 7 ATTACHMENTS TO THIS BID

7.01 The following documents are attached to and made a condition of this Bid. Failure to provide the documentation with the bid may be grounds for rejection of the bid.

- A. Required Bid security in the form of a Bid Bond (EJCDC No. C-430) or Certified Check (circle type of security provided).
- B. In accordance with GS 143-128.2(c), Bidder shall identify on its bid the minority businesses that it will use on the project and the total dollar value of the bid that will be performed by the minority businesses and list the good faith efforts (Affidavit A) made to solicit participation. A bidder that will perform all of the work with its own workforce may submit and Affidavit (B) to that effect in lieu of the Affidavit (A) required above.

1. Identification of Minority Business Participation
 2. Affidavit A, listing of Good Faith Efforts; or Affidavit B, Intent to Perform Contract with Own Workforce.
- C. In accordance with GS 64-26(a), Bidders shall submit the E-Verify Affidavit to document that the work authorization of their employees has been verified through E-Verify. The Affidavit shall also document that the Bidders subcontractors comply with E-Verify.
- D. Iran Divestment Act Affidavit.
- E. A tabulation of Subcontractors required to be identified in the Bid.
- 7.02 Submit the Bidder's Checklist as provided in the bidding documents with the bid submittal. The Checklist shall be completed and included as the first page of the submittal.
- 7.03 After the bid opening the Owner will consider all bids and alternates and determine the lowest responsible, responsive bidder. Upon notification of being the apparent low Bidder, the Bidder shall then file within 72 hours of the notification of being the apparent lowest bidder, the following:
- A. An Affidavit (C) that includes a description of the portion of work to be executed by minority businesses, expressed as a percentage of the total contract price, which is equal to or more than the goal established by the Owner and indicated in the Instruction to Bidders, paragraph Minority Participation Goals. This affidavit shall give rise to the presumption that the bidder has made the required good faith effort; or
 - B. Affidavit (D) of its good faith effort to meet the goal. The document must include evidence of all good faith efforts that were implemented, including any advertisements, solicitations and other specific actions demonstrating recruitment and selection of minority businesses for participation in the contract.
- 7.04 In accordance with GS 143-128 the Single Prime Contractor must identify the Contractors, if any, selected for the following subdivision of work:
- A. General Construction
Name: _____
Address: _____

N.C. License No.: _____
 - B. HVAC Construction
Name: _____
Address: _____

N.C. License No.: _____

C. Plumbing Construction

Name: _____

Address: _____

N.C. License No.: _____

D. Electrical Construction

Name: _____

Address: _____

N.C. License No.: _____

E. Well Driller

Name: _____

Address: _____

N.C. License No.: _____

7.05 Bidder understands that if this Bid is accepted by the Owner, Bidder shall not substitute for the subcontractors named in the Bid Documents except as allowed in the Supplementary Conditions.

ARTICLE 8 DEFINED TERMS

8.01 The terms used in this Bid with initial capital letters have the meanings stated in the Instructions to Bidders, the General Conditions, and the Supplementary Conditions.

ARTICLE 9 BID SUBMITTAL

9.01 Contractor's License

A. Number: _____

B. Classification: _____

C. Limitation: _____

Employer's Tax ID No.: _____

Business Address

Phone No.: _____

Fax No.: _____

E-Mail Address: _____

9.02 This Bid Submitted by:

An Individual

Name: _____
(Type or print)

By: _____
(Individual's Signature)

Doing Business As: _____
(Type or print)

A Partnership

Partnership Name: _____

The Organization and Internal Affairs of the Partnership are governed by the laws of the State of: _____

By: _____
(Signature of general partner, attach evidence of authority to sign)

Name: _____
(Type or print)

Title: _____
(Type or print)

Attest: _____
(Signature of Corporate Secretary)

A Corporation

Corporation Name: _____

State of Incorporation: _____

Type (General Business, Profession, Service, Limited Liability):

By: _____
(Signature, attach evidence of authority to sign)

Name: _____
(Type or print)

Title: _____
(Type or print)

Attest: _____ Corporate Seal
(Signature of Corporate Secretary)

Date of Qualification to do business in North Carolina is _____.

Limited Liability Company – LLC

Name of LLC: _____

Name of State under whose Laws the Limited Liability Company
was formed: _____

By: _____
(Signature of Manager)

Name: _____
(Type or print)

Title: _____
(Type or print)

END OF DOCUMENT

Notice to Proceed

Project: Raw Water Supply Improvements	Date:
Owner: Brunswick Regional Water & Sewer H2GO	Owner's Contract No.: n/a
Contract: N/A	Engineer's Project No.: 3081-BD

Contractor:

Contractor's Address: (send Certified Mail, Return Receipt Requested)

You are notified that the Contract Times under the above contract will commence to run on _____. On or before that date, you are to start performing your obligations under the Contract Documents. In accordance with Article 4 of the Agreement, the number of days to achieve Substantial Completion is **420**, and the number of days to achieve readiness for final payment **450**. The date of completion of all work is therefore _____.

Before you may start any Work at the Site, Paragraph 2.01.B of the General Conditions provides that you must deliver to the Owner (with copies to Engineer and other identified additional insureds) certificates of insurance which you are required to purchase and maintain in accordance with the Contract Documents.

Also, before you may start any Work at the Site, you must :

Owner: Brunswick Regional Water & Sewer H2GO
 Given by: _____
 Authorized Signature

 Title

 Date

Copy to Engineer

Acceptance of Notice

Receipt of the Notice of Proceed is hereby acknowledged by _____

this the _____ day of _____, 2024.

By: _____

Title: _____

SECTION 09900

PAINTING

PART 1 GENERAL

1.01 SCOPE

- A. Work under this section shall include the painting of all surfaces specified herein and indicated on the Drawings.

1.02 DESCRIPTION

- A. Provide the painting required to paint the newly constructed areas under this contract.
- B. Where new pumps are to be installed, paint the entire piping and pumping system at continuous connection. Where new work is installed within existing, paintings should continue as follows:
 - 1. Continuous Surface: To the nearest intersection.
 - 2. Assembly: Entire Assembly

1.03 REFERENCE STANDARDS

- A. The latest revision, at the time of bidding, of the publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.
 - 1. National Sanitation Foundation (NSF)
 - a. Std. 61 Drinking Water System Components - Health Effects.

1.04 QUALITY ASSURANCE

- A. Paint supplier shall verify the compatibility of the specified paint systems to the surface to be painted both new and existing. Submit certification that the paint systems to be used are suitable for the surface to be painted. Notify Engineer of suggested changes in the paint system with the paint submittal.
- B. Ensure compatibility of shop applied primers with the paints specified herein. If shop applied primers are incompatible contractor shall remove incompatible primer with SSPC SP-6 commercial blast.
- C. Painting of surface indicates acceptance of surface for paint system being used.
- D. Paints and varnishes shall be the standard products of the Valspar Corporation, Tnemec Company, Sherwin Williams Company, Glidden, PPG Company, Carboline or equal.

1.05 SUBMITTALS

- A. Submit the following in accordance with Section, Submittals:
 - 1. Affidavit of Compliance: Affidavit shall attest that supplied products conform to the referenced standard and this specification and that all tests set forth in each applicable referenced publication have been performed and that all test requirements have been met. Submit for each of the following materials:
 - a. Each type of paint.
 - 2. Certification: Provide a letter at the end of the Project certifying the following actual work dates, that the cure time for each coat complied with the

manufacturer's requirements, and the manner of application pertaining to the surface preparation, number and type of coats and mil thickness is as specified.

- a. Start and completion dates for each paint coat for each major work area.
3. Catalog Data: Submit manufacturer's standard drawings or catalog cuts for the following. The equipment to be furnished for the Project shall be clearly indicated including all options to be provided.
 - a. Paint Schedule: Submit five (5) copies of the manufacturer's data sheet for each type of paint proposed to be used on the Project. Use paint schedule as indicated in these specifications as a format guide. The data sheet shall include, but not be limited to, the following:
 - 1) Paint system.
 - 2) Requirements for the following:
 - i) Handling and storage.
 - ii) Health and safety.
 - iii) Surface preparation.
 - iv) Application.
 - v) Curing time between coats and for immersion as appropriate.
 - 3) Certification by NSF, International in accordance with NSF Std. 61 for interior paint systems.
 - 4) Recommended Dry Film Thickness (DFT).
 4. Samples: Submit five (5) color cards with paint schedule submittal.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. The Product shall be handled in accordance with Section, Material and Equipment.
- B. Mixing of paints shall be restricted to locations directed.
- C. Take necessary precautions to prevent fire.

PART 2 PRODUCTS

2.01 PAINTING MATERIALS

- A. Cleaners, thinners, driers, and other additives and surface treatment materials shall be those approved for use by the manufacturer of the paints.
- B. Products used in areas to be in contact with potable water shall be certified in accordance with NSF Std. 61.

2.02 PAINTING SCHEDULE

- A. For convenience only, the paints specified herein, unless listed otherwise, are as manufactured by Tnemec, Carboline, Sherwin-Williams or equal. Similar paints as manufactured by other manufacturers will be acceptable.
- B. Paint on this project shall be of one manufacturer.
- C. Exterior Metal Doors and Frames, except aluminum:
 1. 1 coat Tnemec Chem-Prime 37-77, Valspar V13-R-28 Chromax Primer, Carboline Carbocoat 150, Sherwin-Williams Kem Kromik Universal Primer or equal (2 mils dry).
 2. 2 coats Tnemec Theme-Gloss, Valspar 20 series M&F Enamel, Carboline Carbocoat 139, Sherwin-Williams Industrial Enamel VOC Complying or equal (2 mils dry per coat).

- D. Exterior Metal Work not Specified Otherwise:
1. Galvanized, zinc coated, aluminum and bronze surfaces shall not be painted. On surfaces which have been shop coated, the priming coat may be omitted. Surfaces upon which shop coat has been damaged shall have metal cleaned to satisfaction of the Engineer and the cleaned surfaces primed with the specified primer. Surfaces so primed shall then be painted as specified.
 2. Non-Submerged:
 - a. Surface Preparation: SSPC SP-6 Commercial Blast.
 - b. 1 coat Tnemec 66-1211 Epoxoline primer, Valspar 13-R-62 Epoxy Primer, or equal (3 mils dry) or Carboline Carboguard 893 SG, Sherwin-Williams Tile Clad HS (1 coat @ 3.0-5.0 mils DFT).
 - c. 1 coat Tnemec 66 Series Hi-Build Epoxoline, Valspar 89 Series H.B. Epoxy, or equal (2 mils dry) or Carboline's Carboguard 893 SG, Sherwin-Williams Tile Clad HS (1 coat @ 3.0-5.0 mils DFT).
 - d. Provide 1 coat Tnemec urethane Series 73, or equal (2 mils dry), Carboline Carbothane 133HB, or Sherwin-Williams Acrolon 218 HS (1 coat @ 3.0-5.0 mils DFT).
 - e. For bituminous coated piping, apply 1 coat of Tnemec Series 66-1211 or Sherwin-Williams Macropoxy 646 Fast Cure Epoxy (2.5 mils dry) followed by 1 coat Tnemec 66 Series Hi-Build Epoxoline or Sherwin-Williams Macropoxy 646 Fast Cure Epoxy (same color as top coat) and 1 coat of Tnemec Series 73 Endura-Shield or Sherwin-Williams Acrolon 218 HS (urethane finish) (2 mils dry per coat) or equal paint system.
 3. Submerged or Intermittently Submerged: (NOTE: Omit primer if field blasted.)
 - a. Surface Preparation: SSPC SP-10 near white.
 - b. 1 coat Tnemec 66-1211 Epoxoline primer, Valspar 78-W-3 H.B. Epoxy, Sherwin-Williams Macropoxy 646 Fast Cure Epoxy, or equal (2 mils dry) or Carboline Carboguard 691 (1 coat @ 5.0-6.0 mils DFT).
 - c. 2 coats Tnemec 66 Series Hi-Build Epoxoline, Valspar 78 Series H.B. Epoxy, Sherwin-Williams Macropoxy 646 Fast Cure Epoxy, or equal (3 mils dry per coat) or Carboline Carboguard 691 (1 coat @ 12.0-15.0 mils DFT).
- E. Interior Metalwork:
1. Surface Preparation: SSPC SP-6, commercial grade.
 2. 1 coat Tnemec 77 Chem-Prime, Valspar V13-R-28 Chromox Primer, Sherwin-Williams Kem Kromik Universal Primer, or equal (2 mils dry) or Carboline's Carboguard 893SG (1 coat @ 3.0-5.0 mils DFT).
 3. 2 coats Tnemec 66 Series Hi-Build Epoxoline, Valspar 89 Series H.B. Epoxy, Sherwin-Williams Tile Clad HS, or equal (2 mils dry per coat) or Carboline's Carboguard 893 SG (1 coat @ 3.0-5.0 mils DFT).
 4. For bituminous coated piping, apply 1 coat of Tnemec Series 66-1211, 2 coats Sherwin-Williams Macropoxy 646 Fast Cure Epoxy or equal (2.5 mils dry) followed by 2 coats Tnemec 66 Series Hi-Build Epoxoline or equal (2 mils dry per coat).
- F. Exposed piping, ductwork, electrical conduits and other utility items shall be painted to match the adjacent surface colors. Each item shall be treated and primed in accordance with paint manufacturer's recommendations.
- G. Finished copper work shall be cleaned immediately after erection and coated with one coat of boiled linseed oil meeting the requirements of ASTM 0260-61.
- H. Plastic Pipes: (Legends on pipes)
1. Solvent wipe area to be painted.

2. Sand lightly with 120 grit aluminum oxide sand paper.
3. Dust area.
4. 1 coat of polyamide epoxy (3 mils dry), such as Carboline Carboguard 893SG, Sherwin-Williams Tile Clad HS, or equal.
5. Color coding to be selected by the Engineer.

PART 3 EXECUTION

3.01 GENERAL REQUIREMENTS

- A. Surfaces to be painted shall be thoroughly clean and shall be dry when paint is applied. Painting materials shall be thoroughly worked into all joints, crevices, and open spaces.
- B. Colors and shades of colors shall be as directed unless specified otherwise.
- C. Finished surfaces shall be smooth, even and free of defects prior to painting.
- D. Surfaces which are inaccessible for painting after erection shall be treated, primed and painted prior to erection.
- E. Equipment nameplates, tags, signs, and equipment lubrication points shall be masked or otherwise protected from covering with paint.
- F. Properly mask and protect portion of finished work not to be painted.
- G. Damaged painting shall be retouched before applying the succeeding coat.
- H. Existing bare surfaces and surfaces made bare by cleaning methods shall be primed prior to painting.
- I. The number of paint coats specified shall be in addition to spot priming and shop prime coats except as indicated otherwise.
- J. Copper and aluminum, except for pipe identification, shall not be painted.
- K. Paints shall be applied strictly in accordance with the manufacturer's direction and thinners shall be of the type required by the individual paint specifications. No thinners will be stored on site or used unless specifically authorized by the Engineer.

3.02 SURFACE PREPARATION

- A. General: Dirt, rust, loose scale and particles, disintegrated paint, grease, and foreign matter shall be removed by scraping, sand blasting, wire brushing, or other approved methods, from all surfaces which are to receive paint or other finish. Surfaces shall be free from dust and in proper condition to receive paint or other finish, Where necessary, putty shall be applied with a knife. Sand-papering, where necessary, shall be done after the undercoats are dry.
- B. Concrete and Masonry: Dirt, fungus, grease, and oil shall be removed prior to application of paint by washing the surface with a solution composed of from 2 to 8 ounces of trisodium phosphate per gallon of hot water and then rinsing thoroughly with fresh water. Efflorescence shall be removed from concrete and masonry surfaces by scraping, wire brushing and washing with a 5 to 10 percent by weight, solution of muriatic acid and then washing thoroughly with fresh water, removing all traces of the acid. The trisodium phosphate and muriatic acid solutions shall be strengths to perform their functions properly. Glaze and all loose particles and scale shall be removed by wire brushing. All concrete and masonry surfaces to be painted shall be given a neutralizing treatment consisting of 2 pounds of sinz sulphate in one

gallon of warm water. The neutralizer shall be applied liberally and allowed to dry, following which the surfaces shall be rinsed thoroughly with clean water and allowed to dry for not less than 48 hours before paint is applied.

- C. Wood: Wood shall be clean, smooth and free of oil, grease, dirt, mildew, loose paint or other contaminants. Defects such as knots in new wood shall be sealed with 4 lbs cut shellac reduced with an equal volume of shellac thinner. Nail holes, cracks and other structural defects shall be caulked or spackled smooth. Sand where required.
- D. Ferrous Metal
1. New Metal: New metal work shall be cleaned in accordance with the Steel Structure Painting Council Specifications indicated in the painting schedule for the respective service indicated.
 2. Existing Metal: Existing metal surfaces to be painted shall be closely examined to determine the exact condition of the existing paint coating. The existing surface shall then be prepared for painting as required by the Engineer and as recommended by the paint manufacturer. As a minimum loose, spoiled and brittle paint shall be removed. Exposed metal shall be hand cleaned. The following table shall be used as a guide for determining the degree of surface preparation.
- | | |
|----------------------|---------------------------------------|
| Surface Condition | Degree of Preservation |
| 75% intact | Hand clean and spot primer base areas |
| Less than 75% intact | Total sandblast |
| Brittle, corroded | Total sandblast |
- E. Piping, Fittings and Mechanical and Electrical Equipment:
1. Piping to be insulated, except zinc-coated pipe, prior to the application of the insulation, shall be coated with one coat of approved pretreatment coating to a dry film thickness of 0.3 to 0.5 mil, and then given two coats of zinc-chromate primer, each coat applied to a minimum dry film thickness of one mil. Zinc-coated piping under insulation shall not be painted.
 2. Pipe hangers, structural supports, pipe and fittings, conduit and conduit fittings, pipe covering, insulation and miscellaneous steel and iron work shall be painted to match the adjacent interior surfaces and exterior work shall be as directed, utilizing the painting schedule as hereinbefore specified.
 3. Factory finished surfaces shall be painted as indicated.

3.03 APPLICATION

- A. Workmanship shall be first-class in every respect. Paint shall be applied to dry, except as otherwise specified, on thoroughly clean surfaces only and shall be worked into all joints, crevices, and open spaces thoroughly. Paint shall be applied carefully with good clean brushes. Sufficient time shall be allowed between coats to permit thorough drying, and each coat shall be in proper condition to receive the next coat before its application. Finish coats shall be smooth and free from runs, sags, blisters, or other defects. Each coat of paint shall be sufficiently heavy to cover completely the previous coat or surface. Exterior paint shall not be applied during foggy or inclement weather.

3.04 COATING THICKNESS

- A. General: Thickness of coatings shall be checked by a dry film thickness gauge of the magnetic type operated electrically or by permanent magnet. Gauges shall be calibrated with a standard which is approximately the same thickness as the coating to be measured and, if possible, on metal identical both in composition and surface

texture to that underlying coating. The Contractor shall be responsible for providing a gauge for checking the film thickness.

- B. The total dry mil thickness of the coating for masonry surfaces shall not be less than 6.0 mils.
- C. The total dry mil thickness of the coating for exposed metal surfaces subject to submergence in wastewater shall be not less than 10 mils.

3.05 CLEAN-UP

- A. On completion of the painting work, clean all paint spots and other paint material from surfaces not intended for painting. Clean all rubbish and accumulated material from the work site. Leave the work in a clean and orderly condition, acceptable to the Engineer. No payment for painting work will be approved until the contractor has requested anticipated and firm thickness has been verified.

END OF SECTION