FORM REVISED 6/04

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DOCKET NO. W-1300, Sub 83
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BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

APPLICATION FOR A CERTIFICATE OF PUBLIC CONVENIENCE & NECESSITY
AND FOR APPROVAL OF RATES

INSTRUCTIONS

Notes or explanations placed in the margins or the application are acceptable. If additional space is needed, supplementary sheets may be attached. If any section does not apply, write "not applicable" or cross out the section.

APPLICANT

1. Trade name used for utility business: Old North State Water Company
2. Name of owner (if different from trade name): n/a
3. Business mailing address: PO Box 10127
   City and state: Birmingham, AL Zip Code 35202
4. Business street address (if different from mailing address): 3212 6th Ave S, Ste 200, Birmingham, AL 35222
5. Business telephone number: 205-326-3355
6. If corporation, list the following:
   President: John McDonald Vice President: none
   Secretary: John McDonald Treasurer: none
   Three (3) largest stockholders and percent of voting shares held by each
   John McDonald 100%
7. If partnership, list the owners and percent of ownership held by each
   none

PROPOSED UTILITY SERVICE AREAS

8. Name of Subdivision or Service Area: The Reserve at Falls Lake Phase 4
9. County (or Counties): Wake County
10. Type of Service (Water and/or Sewer): Water

PROPOSED RATES

(Amount Applicant Proposes to Charge)

11. Metered Residential Service:
    Water: $ 24.11 Base Rate; $ 7.57 Usage (per 1,000 gallons)
    Sewer: $ - Base Rate; $ - Usage (per 1,000 gallons)
12. Flat Rate Residential Service:
    Water: $ - per REU
    Sewer: $ - per REU
13. Nonresidential Service (explain):
    Water: per REU; Usage (per 1,000 gallons)
    Sewer: $ - per REU; $ - Usage (per 1,000 gallons)
14. Tap-on fees:
    Water: $ 500.00 per REU
    Sewer: $ - per REU
15. Finance charge for late payment: 1%
    (NCUC Rule R12-9 specifies not more than one percent (1.0%) per month will be applied to the unpaid balance of all bills still past due 25 days after billing date.)
16. Reconnection charge if water service cut off by utility as specified in NCUC Rule R7-20: $ 30.00
17. Reconnection charge if water service cut off discontinued at customer's request: $ 15.00
18. Reconnection charge if sewer service cut off by utility as specified in NCUC Rule R10-16: N/A
19. Other Charges: a. New account fee: $ 20.00 b. Meter fee: $ 125.00

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PROPOSED BILLING

1. Frequency of billing shall be (monthly, quarterly, etc.) Monthly
2. Billing shall be for service (in advance or arrears) Arrears
3. Bills past due 15 days after billing dates: (NCUC Rule R12-9 specifies that bills shall not be past due less than fifteen (15)days after billing date).
4. Will regular billing be by written statement? (yes or no) Yes
5. Will the billing statement contain the following? (Indicate yes or no for each item)
   - (a) Meter reading at beginning and end of billing period Yes
   - (b) Date of meter readings Yes
   - (c) Gallons used, based on meter readings Yes
   - (d) Amount due for current billing period listed as a separate amount Yes
   - (e) Amount due from previous billing period listed as a separate amount Yes
   - (f) Amount due for each special charge (i.e. deposits, tap fees, etc.) listed as a separate amount Yes
6. Show how the following will appear on the billing statement:
   - (a) Mailing address of company PO Box 10127, Birmingham, AL 35202
   - (b) Address where bill can be paid in person: We do not have an option for paying bills in person
   - (c) Name and phone number of alternative persons to contact for emergency service after business hours: 1-877-511-2911, caller will be directed to on-call operator
7. Is service already metered? (yes or no) No
8. Does the Applicant understand the provisions for establishing credit and collecting customer deposits set forth in NCUC Rules and Regulations, Chapter 12? (yes or no) Yes
   (Customer deposits must be refunded to customers having not more than two (2) bills overdue during a 12-month period and who are not then delinquent of their bills, per NCUC R12-5.)

PRESENT RATES

9. Are you presently charging for service? If so, describe the rates being charged.
   No
10. *How long have these rates been in effect?* *n/a*

PERSONS TO CONTACT

		NAME	ADDRESS	TELEPHONE
11.	Utility Manager	John McDonald	3212 6th Ave S, Ste 200, Birmingham, AL 35222	205-326-3355
12.	Complaints or Billing	Dominic Whicher	3212 6th Ave S, Ste 200, Birmingham, AL 35222	205-326-6807
13.	Engineering Operations	Dale Boyette	6302 Btyan Road Lucama, NC 27851	252-230-8115
14.	Emergency Service	Customer Service	3212 6th Ave S, Ste 200, Birmingham, AL 35222	877-511-2911, opt 1
15.	Accounting	Joseph Mitchell	3212 6th Ave S, Ste 200, Birmingham, AL 35222	205-588-6585

16. Are the names and phone numbers shown above listed in the phone book by each of the proposed service areas? (yes or no) No
17. Can customers make phone calls for service without being charged for a long distance phone call? (yes or no) Yes
18. Do persons designated to receive phone calls for emergency service, after regular business hours, have the authority to provide the needed repairs without first contacting owner? (yes or no) Yes
19. List the qualifications of the person in charge of the utility system:
    Alex Bass, C-Well, C-Distribution, Certification # 210029
20. List the date(s) and describe any DENR violation(s) since the last application for franchise, transfer or rate increase: n/a

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SERVICE AREA

Fill in one column for each subdivision or service area.

			(1)	(2)	(3)
1.	Name of subdivision or service area		The Reserve at Falls Lake Ph.4		
2.	County (or Counties)		Wake		
3.	Type of service (water, sewer, etc.)		Water		
4.	If water is purchased, list from whom		NA		
5.	Source of water supply (wells, etc.)		Well		
6.	Number of wells in service		1		
7.	Pumping capacity of each pump in service		16 gpm		
8.	Elevated storage tank capacity (gals.)		NA		
9.	Pressure tank capacity (gals.)		5,000		
10.	Type of water treatment (chlorine, etc.)		Chlorine		
11.	Number of fire hydrants installed		NA		
12.	Is sewage disposal by septic tank or by sewer system?		Septic tank		
13.	If disposal is by sewer system, is sewage treated by utility company or by others?		NA		
14.	Capacity of Company's sewage treatment plant (gallons per day)		NA		
15.	Is service metered? (yes or no)		Yes		
16.	Number of water meters in use		0		
17.	Number of service taps in use (list number of each size)	Water	0		
		Sewer			
18.	Number of customers at the end of test year	Water	16		
		Sewer			
19.	Number of customers that can be served by mains already installed (including present customers, vacant lots, etc.)	Water	16		
		Sewer			
20.	Number of customers that can be served by pumping capacity	Water	16		
21.	Number of customers that can be served by storage tank capacity	Water	16		
22.	Number of customers that can be served by treatment plant capacity	Sewer			
23.	Name of nearest water/sewer utility system		City of Raleigh		
24.	Distance to nearest water/sewer utility system		16 miles		
25.	Does any other person or utility seek to furnish the service(s) proposed herein? (yes or no)		No		
26.	a. DENR System I.D. No.	Water	40-92-213		
	b. NPDES or Nondischarge Permit No.	Sewer			

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FINANCIAL STATEMENT

1. Will a separate set of books be maintained for the utility business?
   Yes
2. Will a separate bank account be maintained for the utility business?
   No
3. Are the revenues and expenses listed below based on past operations or are they estimated for future operations? (actual or estimated) Estimated

Note: *If the Applicant already holds a public utility franchise, the proposed service area is new (i.e., there are no customers being served), and the proposed rates herein are the same as those previously approved, then the financial information below (lines 4 through 35) may be omitted.*

REVENUES AND EXPENSES

For 12 Months Ended December 31, 2024 (Date) projected for Year 1

	Revenues		Water	Sewer
4.	Residential service (flat rate)		4,506	
5.	Residential service (metered rate)		4,629	
6.	Nonresidential service (flat rate)			
7.	Nonresidential service (metered rate)			
8.	Other revenues (described in remarks below)		320	
9.	Total Revenues (Lines 4 thru 8)		9,455	
10.	Total salaries		4,544	
11.	Salaries paid to owner		-	
12.	Administrative and office expense (except salaries)	See Note A	257	
13.	Maintenance and repair expense (except salaries)		224	
14.	Transportation expenses		557	
15	Electric power for pumping		950	
16	Chemicals for treatment		450	
17.	Testing fees		1,200	
18.	Permit fees		14	
19.	Purchase water/sewer treatment		-	
20.	Annual depreciation		-	
21.	Taxes: State Income taxes			
22	Federal income taxes			
23.	Gross receipt taxes			
24.	Property taxes			
25.	Payroll taxes			
26.	Other taxes			
27.	Interest on debt during year		-	
28.	Other expenses (describe in remarks below)	See Note B	672	
29.	Total Expenses (lines 10 thru 28)		8,868	
30.	Net Income (Line 9 minus 29)		586	

Remarks

31. Line 8 - new account fee ($20)
32. Line 12 - processing fees (Southdata, Stamik)
33. Line 28 - insurance expense, other operating expense, support expense
34. Test year revenue estimated at connections
35.

NUMBER OF CUSTOMERS SERVED

		Water		Sewer	
		Flat Rate	Metered	Flat Rate	Metered
36.	Customers at beginning of year				
37.	Customers at end of year				
38.	Average gallons used per customer	3,100 /month			per month

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COST OF UTILITY SYSTEM

1. Is the cost of utility system listed below on past operation, or is it estimated for future operation? (actual or estimated) Actual
2. Does the cost of utility system listed below represent the cost to the Applicant herein? (yes or no) No

If no, list cost (purchase price to Applicant). $8,000

ORIGINAL COST OF UTILITY SYSTEM

As of Year Ended December 2024 (Date) proforma

Note: List the total original cost to construct and establish the system, whether or not paid for by the present owner.

Utility Property in Service

		Balance at End of Year	
		Water	Sewer
3.	Land and right-of-way	1.00	
4.	Structures and site improvement	34,000	
5.	Wells	25,600	
6.	Pumping equipment	9,900	
7.	Treatment equipment	800	
8.	Storage tanks	33,200	
9.	Mains (excluding service connections)	13,000	
10.	Service Connections	20,552	
11.	Meters (including spare meters)	750	
12.	Office furniture and equipment	-	
13.	Transportation equipment	-	
14.	Other utility property in service (describe in remarks below)	5,000	
15.	Total utility property in service (Lines 3 thru 14)	142,803	
16.	Less: accumulated depreciation		
17.	Less: *accumulated tap fees and other contributions in aid of* construction	142,803	
18.	Less: customer advances		
19.	Net investment in utility property (Line15 minus16, 17, &18)	-	

Utility Property Not in Service

		Balance at End of Year	
		Water	Sewer
20.	Construction work in progress		
21.	Property held for future use	$ -	$ -
22.	Other (describe in remarks below)	$ -	$ -
		$ -	$ -

Remarks

23. Line 14 - Cost for Engineering
24. Line 19 - Company will receive $500 tap fee per connection and pay Developer $500 per connection therefore the net investment is zero.
25.
26.

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RECOVERY OF PLANT COST

The utility proposes to recover the cost of the plant listed on Page 5, Line 15 as follows:

		Water	Sewer
1.	Amount to be contributed by developer	134,803	
2.	Amount to be recovered through tap fees	-	
3.	Amount to be recovered through rates	-	
4.	Other (please describe below on Line 6)	8,000	
5.	Total cost of plant	142,803	$ -

6. Description of other:

Company will receive $500 tap fee per connection and pay Developer $500 per connection, therefore the net investment is zero. Tap fee activity is a pass thru/clearing transaction.

ANNUAL DEPRECIATION

7. If annual depreciation is claimed using a composite rate for the entire system show rate of depreciation used

Water: When the system is actually recorded in the asset accounts, ONSWC will use account specific depreciation rates

8. If annual depreciation is claimed using individual rates for each type of equipment, show rates of depreciation used:

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OTHER FINANCIAL INFORMATION

1. Please provide the following capital structure information for the Company prior to the purchase of the new water and/or sewer system(s)

a. Capital structure as of 9/31/2023

b. Capital structure balances:

Confidential

	Amount	Percent of Total Capital
Long-term debt/loans	[redacted]	
Preferred stock (if any)		
Common equity:		
Capital Reserve		
Retained earnings		
Total common equity		
Total Capital		

2. The purchase price of the system will be financed as follows:

a.	Long term debt	
b.	Short term debt	$ -
c.	Capital Reserve	$ -
d.	Retained earnings	$ -
e.	Other (please describe below on Line g)	$ -
f.	Total purchase price	$ -

g. Description of other: Tap fees collected will be used to pay the per lot purchase price per the APA

3 Please provide the following for the improvements/additions to be made in the first year

a. Brief Description: **No planned improvements for the first year**

b. Financing:

(1)	Long-term debt	$ -
(2)	Short-term debt	$ -
(3)	Capital Reserve	$ -
(4)	Retained earnings	$ -
(5)	Other (please describe below on Line (7))	$ -
(6)	Total improvements/additions	$ -

(7) Description of other

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1. Are there any major improvements/additions required in the next five years and the next ten years? Indicate the estimated cost of each improvement/addition, the year it will be made, and how it will be financed (long-term debt, short-term debt, common stock, retained earnings, and other (please explain)).

None are planned

2. Are there any major replacements required in the next five years and the next ten years? Indicate the estimated cost of each replacement, the year it will be made, and how it will be financed (long-term debt, short-term debt, common stock, retained earnings, and other (please explain)).

None are planned

3. Please fill out the attached addendum showing the projected cash flows and income statement for the first five years of operation of this system. This addendum should be for the utility system for which the subject application is being submitted, exclusively. Instructions are included on page 3 of the addendum. The following information may be provided instead of filing the addendum:

(1) Audited financial statements for the utility and/or parent company.

(2) Budgets, capital and operating, for the company's North Carolina utility operations for the next five years

(3) The most recent fiscal year budgets, capital and operating, and the actual amounts for that year for the utility's and/or parent company's North Carolina utility operations.

THE FOLLOWING EXHIBITS SHALL BE ATTACHED TO THE APPLICATION

1. If the Applicant is a corporation, enclose a copy of the Articles of Incorporation on file with the North Carolina Secretary of State. (Not required if previously filed wit the Commission.)
2. If the Applicants are doing business as a partnership, enclose a copy of the partnership agreement. (Not required if previously filed with the Commission.) n/a
3. If the Applicant is conducting business under a trade name or d/b/a, enclose a copy of the certificate filed with the register of deeds in each county where the Applicant will be conducting business as required by G.S. 66-68.
4. Enclose a copy of a letter from the Department of Environment and Natural Resources granting approval of the plans for each water system.
5. Enclose a copy of a letter from the Department of Environment and Natural Resources granting approval of the plans for each sewer system.
6. Enclose a copy of a Division of Environmental Health (DEH) report on an chemical analysis of untreated water from each well. (This should not be confused with the monthly samples submitted to DEH for bacteriological analysis. Contact DEH for instructions to obtain a sample for chemical analysis.)
7. Enclose a copy of purchase agreements or contracts showing provisions for ownership or control of the water or sewer systems, including sites for wells or treatment plants.
8. Enclose a copy of contracts or agreements, including all attachments, exhibits, and appendices, between the utility and any other party (land developers, customers, etc.) regarding the proposed utility services, including contracts regarding tap fees, construction costs, easements, and rights-of-way, etc. (If non, write "none"). _____
9. Enclose a vicinity map showing the location of the proposed subdivisions or service areas in sufficient detail for someone not familiar with the county to locate the subdivisions. (A county roadmap with the subdivision outlined is suggested.)
10. Enclose maps of the subdivisions in sufficient detail to show the layout of streets, lots, the water or sewer mains, hydrants, wells, pumping equipment, treatment facilities, storage facilities, etc. Attached

> See Attachment

11. Enclose a copy of the workpapers supporting the estimate of the plant costs, including a breakdown by type of plant item, showing the detail of how the estimated cost was determined, and indicating which plant items, if any, will be contributed to the utility.
12. Enclose a copy of the most recent fiscal year financial statements, audited if available, for the applicant.
13. Enclose a copy of the most recent fiscal year financial statements, audited if available, for the parent company of the Applicant.
14. If the information requested in Exhibits 12 and 13 is not available, enclose a copy of the most recent fiscal year financial statements or statement of net worth for the principals of the utility and/or parent company.

FILING INSTRUCTIONS

15. Eight (8) copies of the application and exhibits shall be filed with the **North Carolina Utilities Commission, 4325 Mail Service Center, Raleigh, North Carolina 27699-4325.** One of these copies must have an original signature. (Applicants must also provide any copies to be returned to them.)

16. Enclose a filing fee as required by G. S. 62-300. A Class A company (annual revenues of $1,000,000 or more) requires a $250 filing fee. A Class B company (annual revenues between $200,000 and $1,000,000) requires a $100 filing fee. A Class C company (annual revenues less than $200,000) requires a $25 filing fee. **MAKE CHECK PAYABLE TO THE N.C. DEPARTMENT OF COMMERCE/UTILITIES COMMISSION.**

SIGNATURE

17. Application shall be signed and verified by the Applicant.

Signature: _____

Date: 2/26/24

18. (Typed or Printed Name) John McDonald
personally appearing before me and being first duly sworn, says that the information contained in this application and in the exhibits attached hereto are true to the best of his/her knowledge and belief.

Jennifer Lynn Adams
Notary Public, Alabama State at Large
My Commission Expires 07/01/2025

28th day of February

Jennifer Lynn Adams
Notary Public

3212 6th Ave S, Ste 200, Birmingham, AL 35222
Address

My Commission Expires: 7/1/2025
Date

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ADDENDUM TO APPLICATION FOR CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY AND FOR APPROVAL OF RATES

Projected Income Statement

Line No.	Item		Year 1	Year 2	Year 3	Year 4	Year 5
	Connections		16	16	16	16	16
	Operating revenue						
1	Metered service revenue		4,506	4,506	4,506	4,506	4,506
2	Flat rate service revenue		4,629	4,629	4,629	4,629	4,629
3	EPA testing surcharge						
4	Re-connect fees						
5	Returned check charge						
6	Late payment charge						
7	Other operating revenue		320	-	-	-	-
8	Total operating revenue (Sum of Line 1 thru Line 7)		9,455	9,135	9,135	9,135	9,135
	Operating expenses						
9	Total salaries and wages (employees only)		4,544	4,617	4,690	4,765	4,841
10	Outside labor expenses (non-employees)				-		
11	Administrative and office expense		257	265	273	281	290
12	Maintenance and repair expense		224	231	238	245	252
13	Purchased water				-	-	-
14	Purchased sewage treatment		-	-	-	-	-
15	Electric power expense (exclude office)		950	979	1,008	1,038	1,069
16	Chemicals expense		450	464	477	492	506
17	Testing fees		1,200	1,236	1,273	1,311	1,351
18	Transportation expense		557	574	591	608	627
19	Other operating expense		672	692	713	734	756
20	Total operation and maintenance expenses (Sum of Line 9 thru Line 19)		8,854	9,056	9,263	9,475	9,692
21	Annual depreciation expense		-	-	-	-	-
22	Property taxes paid on utility property						
23	Payroll taxes					-	-
24	Franchise (gross receipts) tax						
25	Annual NCUC regulatory fee	0.1475%	14	13	13	13	13
26	Total operating expenses (Sum of Line 20 thru Line 25)		8,868	9,070	9,276	9,488	9,706
	Pre-tax operating income (loss):		586	65	(142)	(354)	(571)
	Income Taxes						
27	State income taxes		15	2	-	-	-
28	Federal income taxes		120	13	-	-	-
29	Total income taxes (Line 27 + Line 28)		135	15	-	-	-
30	Net operating income (loss) (Line 8 - Line 26 - Line 29)		452	50	(142)	(354)	(571)
31	Interest expense		139	138	137	135	134
32	Net income (loss) (Line 30 - Line 31)		312	(88)	(278)	(489)	(705)

ADDENDUM TO APPLICATION FOR CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY AND FOR APPROVAL OF RATES

Statement of Cash Flows

Line No.	Item	Year 1	Year 2	Year 3	Year 4	Year 5
	Cash Flows From Operating Activities					
1	Pre-tax operating income (loss):					
2	Total operating revenue	9,455	9,135	9,135	9,135	9,135
3	Less: Operation and maintenance expenses	8,868	9,070	9,276	9,488	9,706
4	Less: Taxes other than income	14	13	13	13	13
5	Pre-tax operating income (loss)	572	52	(155)	(367)	(585)
6	Income tax calculation:					
7	Pre-tax operating income (loss)	572	52	(155)	(367)	(585)
8	*Plus: Contributions in aid of construction*	-	-	-	-	-
9	Less: Tax depreciation	-	-	-	-	-
10	Less: Interest expense	139	138	137	135	134
11	Taxable income (loss)	433	(86)	(292)	(502)	(719)
12	State income tax	11	-	-	-	-
13	Federal income tax	89	-	-	-	-
14	Total income taxes to be paid	99	-	-	-	-
15	Net cash provided by (used in) operating activities	334	(86)	(292)	(502)	(719)
	Cash Flows From Investing Activities					
16	Purchases of utility plant	8,000	-	-	-	-
17	Plus: Cash bonds posted	-	-	-	-	-
18	Less: Contributions in aid of construction	8,000	-	-	-	-
19	Less: Proceeds from disposal of utility plant	-	-	-	-	-
20	Net cash used (provided) by investing activities	-	-	-	-	-
	Cash Flows From Financing Activities					
21	Proceeds from issuing short term debt	-	-	-	-	-
22	Less: Principal repayment of short term debt	-	-	-	-	-
23	Plus: Proceeds from issuing long term debt	-	-	-	-	-
24	Less: Principal repayment of long term debt	-	-	-	-	-
25	Less: Interest payment for short and long term debt	-	-	-	-	-
26	Plus: Proceeds from issuing stock	-	-	-	-	-
27	Less: Dividends paid	-	-	-	-	-
28	Plus: Funds provided by owner	-	-	-	-	-
29	Net cash provided (used) by financing activities	-	-	-	-	-
30	Net increase (decrease) in cash	334	(86)	(292)	(502)	(719)
31	Cash balance at beginning of year	-	334	247	(45)	(547)
32	Cash balance at end of year	334	247	(45)	(547)	(1,266)

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ADDENDUM TO APPLICATION FOR CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY AND FOR APPROVAL OF RATES

Instructions

1 These schedules should reflect all revenues, costs, investment, etc. associated with or to be associated with the utility system for which the subject franchise application is being submitted, exclusively.

2 For purposes of forecasting future expenses, as a simplifying assumption, it may be assumed that increases in such costs due to increases in general price levels, (i.e., inflation) will on average be offset by concurrent rate increases. Thus, no provision(s) for such offsetting changes will need to be made in forecasting costs.

3 A written detailed narrative explanation of all assumptions underlying the information and data contained in this addendum and five (5) copies of all workpapers developed in completing the addendum are to be filed with the Commission's Chief Clerk concurrent with the filing of the franchise application.

4 Computations for Statement of Cash Flows (Page 2 of Addendum)

(a) Line 2 should agree with Addendum Page 1 - Projected Income Statement, Line 8.

(b) Line 3 should agree with Addendum Page 1 - Projected Income Statement, Line 20.

(c) Line 4 should agree with Addendum Page 1 - Projected Income Statement, Sum of Line 22 thru Line 25.

(d) Line 14 should equal Line 12 plus Line 13.

(e) Line 15 should equal Line 5 less Line 14.

(f) Line 30 should equal Line 15 less Line 20 plus Line 29.

(g) Line 31 should equal the cash balance at the end of the prior year, except for the beginning balance for Year 1, which should be zero.

(h) Line 32 should equal Line 30 plus Line 31.

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ASSUMPTIONS

	Year 1	Year 2	Year 3	Year 4	Year 5
> Projected connections added each year	16	-	-	-	-
Projected connections cumulative	16	16	16	16	16
Projected monthly usage	3,000	3,000	3,000	3,000	3,000

> Other operating revenue is the application fee of $20 multiplied by the number of connections per year.

> Annual inflationary factor of 3% is assumed for years 2 to 5. No rate increase is assumed in the projection.

> Assumptions for salaries expense:	Year 1	Year 2	Year 3	Year 4	Year 5
Projected ONSWC REU count	6,884	6,953	7,022	7,093	7,164
Projected combined REU count (ONSWC and Integra) for indirect allocation	12,259	12,504	12,754	13,009	13,270
Projected ONSWC annual payroll	1,196,000	1,231,880	1,268,836	1,306,901	1,346,109
Projected shared services indirect payroll	1,352,000	1,392,560	1,434,337	1,477,367	1,521,688
Prorata ONSWC payroll exp (connection count/ONSWC REU x ONSWC payroll)	2,780	2,835	2,891	2,948	3,007
Shared services payroll exp (system count/combined REU x indirect payroll)	1,765	1,782	1,799	1,817	1,835
> Admin and office expense includes processing fee (0.55/customer per month) and print/mail ser	1.34	1.38	1.42	1.46	1.51
> Repairs & maintenance estimated at $14 annual cost per connection/mo based on historical exp	1.17	1.20	1.24	1.27	1.31

> Electric power cost based on pump and motor size and hours of operation

> Chemicals and Testing cost based on compliance sampling schedule

> Transportation cost (vehicle lease, fuel, repairs) per customer per month estimate	2.90	2.99	3.08	3.17	3.26
> Other operating expense includes insurance expense and support expense allocation (IT, telecom, office expense and other non-payoll shared costs).					
estimated monthly cost per customer	3.50	3.61	3.71	3.82	3.94

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> Assumptions for depreciation expense:	Cost	Est life (yrs)	annual depr
Land and right-of-way	1	not applicable	
Structures and site improvement	34,000	25	1,360
Wells	25,600	50	512
Pumping equipment	9,900	10	990
Treatment equipment	800	20	40
Storage tanks	33,200	50	664
Mains (excluding service connections)	13,000	50	260
Service Connections	20,552	20	1,028
Meters (including spare meters)	750	15	50
Office furniture and equipment	-	5	-
Transportation equipment	-	5	-
Other utility property in service	5,000	40	125
Total depreciable utility property in service from developer (exclude land)	142,802	28.40	5,029

	Year 1	Year 2	Year 3	Year 4	Year 5
Annual depreciation expense for plant in service	5,029	5,029	5,029	5,029	5,029
Annual CIAC amortization expense for contributed plant in service	(5,029)	(5,029)	(5,029)	(5,029)	(5,029)
Annual depreciation expense for tap fees paid by utility company	-	-	-	-	-
Total annual net depreciation	-	-	-	-	-

> Interest expense (allocated by REU) is bond interest cost of 6% on a $1M letter of credit.	139	138	137	135	134

NORTH CAROLINA
PUBLIC / REDACTED
Department of the Secretary of State

To all whom these presents shall come, Greetings:

I, ELAINE F. MARSHALL, Secretary of State of the State of North Carolina, do hereby certify the following and hereto attached to be a true copy of

ARTICLES OF INCORPORATION

OF

OLD NORTH STATE WATER COMPANY, INC.

the original of which was filed in this office on the 11th day of July, 2022.

Scan to verify online.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal at the City of Raleigh, this 11th day of July, 2022.

Elaine F. Marshall

Secretary of State

PUBLIC / REDACTED

State of North Carolina
Department of the Secretary of State

ARTICLES OF INCORPORATION
INCLUDING ARTICLES OF CONVERSION

SOSID: 1225035
Date Filed: 7/11/2022 8:14:00 AM
Elaine F. Marshall
North Carolina Secretary of State
C2022 157 01617

ITEM 1 ATTACHMENT
W-1300 SUB 83

OFFICIAL COPY

Mar 28 2024

Pursuant to §55-2-02 and § 55-11A-03 of the General Statutes of North Carolina, the undersigned converting business entity does hereby submit these Articles of Incorporation Including Articles of Conversion for the purpose of forming a business corporation.

1. The name of the resulting corporation is Old North State Water Company, Inc.
The corporation is being formed pursuant to a conversion of another business entity.

2. The name of the converting business entity is Old North State Water Company, LLC and the organization and internal affairs of the converting business entity are governed by the laws of the state or country of North Carolina. A plan of conversion has been approved by the converting business entity as required by law.

3. The converting business entity is a *(check one)*:
- ☐ foreign corporation
- ☒ domestic limited liability company
- ☐ foreign limited liability company
- ☐ domestic limited partnership
- ☐ foreign limited partnership
- ☐ domestic registered limited liability partnership
- ☐ foreign limited liability partnership
- ☐ other partnership as defined in G.S. 59-36, whether or not formed under the laws of North Carolina

4. The number of shares the corporation is authorized to issue is: 10,000

These shares shall be: *(check either a or b)*

a. ☒ all of one class, designated as common stock; or

b. ☐ divided into classes or series within a class as provided in the attached schedule, with the information required by N.C.G.S. Section 55-6-01.

5. The name of the initial registered agent is: Paracorp Incorporated

6. The street address and county of the initial registered office of the corporation is:

Number and Street 176 Mine Lake Ct. #100

City Raleigh State NC Zip Code 27615 County Wake

7. The mailing address, ***if different from the street address,*** of the initial registered office is:

Number and Street _____

City _____ State NC Zip Code _____ County _____

8. Principal office information: *(Select either a or b.)*

a. ☒ The corporation has a principal office.

The principal office telephone number: (877) 511-2911

The street address and county of the principal office of the corporation is:

Number and Street 3212 6th Avenue S., Suite 200

City Birmingham State AL Zip Code 35222 County Jefferson

The mailing address, ***if different from the street address***, of the principal office of the corporation is:

Number and Street _____

City _____ State _____ Zip Code _____ County _____

b. ☐ The corporation does not have a principal office.

9. Any other provisions, which the corporation elects to include, are attached.

10. The name and address of each incorporator is as follows:

John McDonald
3212 6th Avenue S., Suite 200
Birmingham, AL 35222

11. (Optional): Please provide a business e-mail addres Privacy Redaction .
The Secretary of State's Office will e-mail the business automatically at the address provided at no charge when a document is filed. The e-mail provided will not be viewable on the website. For more information on why this service is being offered, please see the instructions for this document.

12. These articles will be effective upon filing, unless a date and/or time is specified:

This the 26th day of May 20 22 .

Signature

John McDonald, Incorporator

Type or Print Name and Title

NOTES:
1. **Filing fee is $125. This document must be filed with the Secretary of State.**

W1300, Sub 83
PUBLIC / REDACTED

WAKE COUNTY, NC
TAMMY L. BRUNNER
REGISTER OF DEEDS
PRESENTED & RECORDED ON
09-07-2023 AT 10:29:13

BOOK: 019427 PAGE: 02722 - 02727

ITEM 3 ATTACHMENT
W-1300 SUB 83

DEED OF EASEMENT

PREPARED BY: Nikole B. Mariencheck, 7101 Creedmoor Road, Suite 142, Raleigh, NC 27613
MAIL TO: Grantee

STATE OF NORTH CAROLINA
COUNTY OF WAKE

Real Estate ID No.: 0507682
Excise Tax: None

Brief Description for the Index: Falls Reserve Subdivision – Phase 4

THIS DEED of EASEMENT is made and entered into this 6th day of September, 2023, by and between **FALLS LAKE DEVELOPERS, LLC**, a North Carolina limited liability company, hereinafter referred to as "Grantor;" and **OLD NORTH STATE WATER COMPANY, INC.**, a North Carolina corporation with its principal office and place of business at 3212 6th Avenue South, Suite 200, Birmingham, Alabama 35222, hereinafter referred to as "Grantee;"

The designation of the Grantor and the Grantee as used herein shall include said parties, their successors and assigns, and shall include the singular and plural as required and the masculine, feminine and neuter gender as appropriate.

W I T N E S S E T H:

WHEREAS, it is the desire of Grantor and Grantee to convey to Grantee, its successors and assigns, by this deed of easement, a perpetual easement within, over, and across a well lot more particularly described on **Exhibit A** attached hereto and incorporated herein by reference (the "Well Lot") for the installation, construction, operation, interconnection, maintenance, repair, and replacement of a water production and treatment facility to furnish water utility service to Falls Reserve Subdivision –Phase 4, as shown on that certain plat recorded in Book of Maps 2023, Pages 1110-1111, Wake County Registry ("Falls Reserve – Phase 4"), and also a

perpetual access and utility easement for ingress, regress, egress, and access to the Well Lot, which easement shall also be for the installation, construction, operation, interconnection, maintenance, repair, and replacement of a water main and all appurtenant equipment.

Well Lot Easement; Well Protective Easement

NOW THEREFORE, the Grantor for valuable consideration paid by the Grantee, the receipt and sufficiency of which are hereby acknowledged, has and by these presents does grant, bargain, sell, and convey unto Grantee, its successors and assigns, a perpetual easement of ingress, egress, regress, and access within, over, and across the Well Lot for the construction, reconstruction, inspection, interconnection, operation, maintenance, and repair of a well, well house, tank, and/or all related water production, treatment, and storage equipment.

This perpetual easement is also a protective non-contamination easement for the protection of the water well located within the Well Lot. This well protective easement prohibits Grantor, Grantor's successors and assigns, and/or any other person or entity from placing within the Well Lot or allowing to run into the Well Lot any pesticide, herbicide, insecticide, or any other contaminant which may violate the Safe Drinking Water Act, the rules and regulations for community water systems established by the North Carolina Department of Environmental Quality, and/or any other applicable regulatory body. This non-contamination easement also specifically prohibits Grantor and all other persons from parking or locating on the Well Lot any vehicles, equipment, boats, and/or any other type of equipment which may contain chemicals, fuels, and/or other fluids that may be a source of contamination to the water well. Grantee, its successors and assigns shall have the right to remove any source of contamination immediately and/or require the person or entity introducing the source of contamination to remove the contamination and the sources of contamination and also require such person or entity to pay all expenses associated with the removal. In connection with the foregoing, Grantor does hereby grant unto Grantee, its successors and assigns, the right to grade, ditch, or otherwise change the contour of the land within the Well Lot if the same becomes necessary in order to protect the well water from sources of contamination.

Well Lot Access and Utility Easement

Grantor, for valuable consideration paid by the Grantee, the receipt and sufficiency of which are hereby acknowledged, has and by these presents does grant, bargain, sell and convey unto Grantee a perpetual easement of ingress, regress, egress, and access to the Well Lot from the 50' public right of way known as Summer Tanager Trail and also a perpetual easement for the installation, maintenance, repair, interconnection, operation, inspection, and replacement of a water main and all appurtenant equipment, including, but not limited to, electric utility lines, which easement is as more particularly described on Exhibit B attached hereto and incorporated herein by reference.

To have and to hold the aforesaid perpetual easements unto the Grantee, its successors and assigns, and all privileges and appurtenances, thereunto belonging to the Grantee. The

Grantor hereby, for itself, its successors and assigns, hereby warrants and covenants that it is the owner of the aforesaid premises, that it as the right to grant such easements and that the premises are free and clear of any encumbrances and will warrant and defend title to the same against lawful claims of all persons whomsoever.

[Signature page to follow.]

IN WITNESS WHEREOF, the Grantor has caused this instrument to be executed on the day and year first above written.

FALLS LAKE DEVELOPERS, LLC

_____ (Seal)
By: Andrew K. Sandman
Title: Manager

STATE OF NORTH CAROLINA
COUNTY OF WAKE

I, the undersigned, a Notary Public of the County and State aforesaid, certify that **ANDREW K. SANDMAN,** whose identity has been proven by satisfactory evidence, said evidence being:

☒ I have personal knowledge of the identity of the principal(s)
☐ I have seen satisfactory evidence of the principal's identity, by a current state or federal identification with the principal's photograph in the form of a _____
☐ A credible witness has sworn to the identity of the principal(s);

personally came before me this day and acknowledged that he, in such capacity and being authorized to do so, voluntarily executed the foregoing on behalf of the corporation for the purpose stated therein and in the capacity indicated.

Witness my hand and official stamp or seal this 6th day of September, 2023.

_____
Notary Public Signature
Print Name: Nikole B. Marienchuck
My Commission Expires: 10-4-2024

NIKOLE B. MARIENCHECK NOTARY PUBLIC WAKE COUNTY, NC Comm. Exp. 10-4-2024

EXHIBIT A

Well Lot

BEING all of that certain circular area shown as "7419 Well" with a radius of 100.00 feet located within that certain area described as "Open Space" containing 2.84 acres, more or less, as shown on that certain plat entitled "Cluster Subdivision Plat Phase 4 Cluster The Reserve at Falls Lake" prepared by Barry L. Scott Land Surveying dated August 4, 2022, as last revised on April 11, 2023, and recorded in Book of Maps 2023, Pages 1110 - 1111, Wake County, North Carolina Registry.

EXHIBIT B

Well Lot Access and Utility Easement

BEGINNING at a point on the western right of way of Summer Tanager Trail, said point having N.C. grid coordinates of N= 812,507.11' E 2,099,680.57' (NAD '83/2011); thence runs N 78-50'-01" W 77.54' to a point; thence runs S 11-04'-00" W 9.80' to a point; thence runs N 77-06'-38" W 25.65' to a point; Thence runs N 11-04'-00" E 33.58' to a point; thence runs S 79-21'-03" E 26.78' to a point; thence runs S 11-04'-00" W 10.48' to a point; thence runs S 78-50'-01" E 74.06' to a point on the western right of way of Summer Tanager Trail; thence running with said right of way S 01-47'-24" W 14.52' to the POINT AND PLACE OF BEGINNING.

Exhibit 3.2

STATE OF NORTH CAROLINA
COUNTY OF WAKE

BILL OF SALE - WATER

KNOW ALL MEN BY THESE PRESENTS that FALLS LAKE DEVELOPERS (Seller), in return for valuable consideration received by the Seller from Old North State Water Company, LLC (Buyer), the sufficiency of which is hereby acknowledged, has bargained and sold and does by this instrument bargain, sell, and convey to the Buyer, its successors and assigns, the entire potable distribution system located in Falls Reserve Phase 4 Subdivision, Wake County, North Carolina, including, but not limited to distribution mains, valves, tees, ells, crosses, water main easements within publicly dedicated rights of way, and services, all property conveyed hereby being referred to as the Property.

To have and to hold the Property in fee simple.

IN TESTIMONY WHEREOF, the Seller has hereunto set his hand this the 23rd day of May 2022 ~~2021~~.

ANDREW SANDMAN
MANAGER
FALLS LAKE DEVELOPERS, LLC

[Notary Page for Bill of Sale –Falls Reserve Phase 4 Subdivision Water System]

STATE OF NORTH CAROLINA

COUNTY OF WAKE

I, the undersigned, a Notary Public of the County and State aforesaid, certify that Andrew Sandman, whose identity has been proven by satisfactory evidence, said evidence being:

☑ I have personal knowledge of the identity of the principal(s)
☑ I have seen satisfactory evidence of the principal's identity, by a current state or federal identification with the principal's photograph in the form of a NC DRIVERS LICENSE
☐ A credible witness has sworn to the identity of the principal(s);

personally came before me this day and acknowledged that he, in such capacity and being authorized to do so, voluntarily executed the foregoing on behalf of the corporation for the purpose stated therein and in the capacity indicated.

Witness my hand and official stamp or seal this 23rd day of May 2022 ~~2021~~.

Laura M. Johnson
Notary Public Signature

Print Name: Laura M. Johnson

My Commission Expires: 11-2-22

LAURA M. JOHNSON NOTARY PUBLIC WAKE COUNTY NC

[AFFIX NOTARY SEAL BELOW-NOTE THAT SEAL MUST BE FULLY LEGIBLE]

Exhibit 11.1.h.

List of Lot Numbers and Addresses Form
Subdivision Name: **Falls Reserve Phase 4**

1	7409 Summer Tanager Trail
2	7413 Summer Tanager Trail
3	7417 Summer Tanager Trail
4	7429 Summer Tanager Trail
5	7433 Summer Tanager Trail
6	7437 Summer Tanager Trail
7	7441 Summer Tanager Trail
8	7445 Summer Tanager Trail
9	7440 Summer Tanager Trail
10	7436 Summer Tanager Trail
11	7432 Summer Tanager Trail
12	7428 Summer Tanager Trail
13	7420 Summer Tanager Trail
14	7416 Summer Tanager Trail
15	7412 Summer Tanager Trail
16	7408 Summer Tanager Trail

WellSite - 7419 Summer Tanager Trail

ROY COOPER
Governor
ELIZABETH S. BISER
Secretary
S. DANIEL SMITH
Director

NORTH CAROLINA
Environmental Quality

February 3, 2022

Old North State Water Company
Attention: John McDonald, Managing Member
PO Box 10127
Birmingham, Alabama 35202

Re: **Authorization to Construct (This is not a Final Approval)**
Issue Date: February 3, 2022
The Reserve at Falls Lake Subdivision - Phase 4
Serial No.: 21-01094 Wake County
Water System No.: NC4092213
Water System Name: Reserve at Falls Lake (Phase 4)

Dear Applicant:

This letter is to confirm that a complete Engineer's Report and a Water System Management Plan have been received, and that engineering plans and specifications have been approved by the Department for **The Reserve at Falls Lake Subdivision - Phase 4, Serial No.: 21-01094. This authorization to construct is granted with the following condition: Recorded well lot deed/easement documenting that Old North State Water Company owns or has control over 100 feet around the well head must be submitted to our office before Final Approval can be issued for this project.**

The "Authorization to Construct" is valid for 36 months from the issue date. Authorization to construct may be extended if the Rules Governing Public Water Supplies and site conditions have not changed (see Rule .0305). The "Authorization to Construct" and the engineering plans and specifications approval letter shall be posted at the primary entrance of the job site before and during construction.

Upon completion of the construction or modification, **and prior to placing the new construction or modification into service**, the applicant must submit an Engineer's Certification and Applicant's Certification to the Public Water Supply Section.

- **Engineer's Certification**: in accordance with Rule .0303 (a), the applicant shall submit a certification statement signed and sealed by a registered professional engineer stating that construction was completed in accordance with approved engineering plans and specifications, including any provisions stipulated in the Department's engineering plan and specification approval letter.
- **Applicant's Certification:** in accordance with Rule .0303 (c), the applicant shall submit a signed certification statement indicating that the requirements for an Operation and Maintenance Plan and Emergency Management Plan have been satisfied in accordance with Rule .0307 (d) and (e) and that the system has a certified operator in accordance with Rule .1300. The "Applicant's Certification" form is available at http://www.ncwater.org/ (click on Public Water Supply Section, Plan Review, Plan Review Forms).

Certifications can be sent by mail, fax (919-715-4374) or attachment to an e-mail message to **PWSSection.PlanReview@ncdenr.gov**.

Once the certifications are received and determined adequate, the Department will issue a Final Approval letter to the applicant. In accordance with Rule .0309 (a), no portion of this project shall be placed into service until the Department has issued Final Approval. Please contact us at (919) 707-9100 if you have any questions or need additional information.

Sincerely,

Robert W. Midgette, P.E.
Chief, Public Water Supply Section

cc: Shawn Guyer, P.E., Regional Engineer
FLM Engineering, Inc.

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North Carolina Department of Environmental Quality
Division of Water Resources

Authorization to Construct

Project Applicant:	**OLD NORTH STATE WATER COMPANY**
Public Water System Name And Water System No.:	**RESERVE AT FALLS LAKE (PHASE 4) NC4092213**
Project Name:	**THE RESERVE AT FALLS LAKE SUBDIVISION - PHASE 4**
Serial No.:	**21-01094**
Issue Date:	**FEBRUARY 3, 2022**
Expiration Date:	36 Months after Issue Date

In accordance with NCAC 18C .0305, this Authorization to Construct must be posted at the primary entrance to the job site during construction.

PUBLIC / REDACTED

North Carolina Department of Environmental Quality
Division of Water Resources
Public Water Supply Section

Application for Approval of Engineering Plans and Specifications For Water Supply Systems

Applicant	Design Engineer
[redacted]	[redacted]
(Name of Board, Council or Owner – the **Applicant**)	(Name of **Design Engineer** of Record)
[redacted]	[redacted]
(Name and Title of **Authorized Official** or **Representative** of the Applicant)	(Name of Engineering Firm)
[redacted]	[redacted]
(Mailing Address)	(Mailing Address)
[redacted]	[redacted]
(City, State & ZIP)	(City, State & ZIP)
[redacted]	[redacted]
(Phone Number)	(Phone Number)
[redacted]	
(FAX Number)	(FAX Number)
[redacted]	[redacted]
(E-mail address)	(E-mail address)
(Signature of **Authorized Official** or **Representative** of the Applicant)	

Project Name: The Reserve at Falls Lake Subdivision - Phase 4
(Name of Project to appear on Public Water Supply Section records and tracking system)

Falls Lake Properties, LLC is proposing to develop Phase 4 of the Reserve at Falls Lake Subdivision, which includes 16 lots.
(description of project)

The project is located along NC 98, approximately 1.5± mi south of the intersection of Six Forks Road and NC 98.
(general location of project)

in Wake County

Date: 2.3.22
(for DEQ use only)

Serial No: 21-01094
(for DEQ use only)

PUBLIC / REDACTED

Application for Approval of Engineering Plans and Specifications for Water Supply Systems

To: Division of Water Resources,
Department of Environmental Quality

The **Applicant** applies under and in full accord with the provision of NCGS 130A-317, and such other statutes and rules as relate to public water systems. The **Authorized Official** or **Representative** of the **Applicant** represents that he is authorized to act for the **Applicant**. The **Authorized Official** or **Representative** of the **Applicant** understands and agrees to the following:

1. The **Applicant** shall not award contracts or begin construction without first receiving "Authorization to Construct" from DEQ.
2. The **Applicant** shall make no change or deviation from the engineering plans and specifications approved by DEQ except as allowed by 15A NCAC 18C .0306 or with the written consent and approval of DEQ.
3. The **Applicant** shall obtain Final Approval in accordance with 15A NCAC 18C .0306 prior to placing the project (or any portion thereof) into service.
4. Digital (PDF) submittals are true image copy of the original sealed signed documents.

An authorized representative **of the Public Water System** (not always the same as the **Applicant**) is to complete and sign the following WSMP section

Status of Water System Management Plan (WSMP)

Check one of the following, and if applicable, provide the required information:

☐ The WSMP for the project, as defined in the attached engineering plans and specifications, has not been submitted.

☐ Three copies of the WSMP for the project, as defined in the attached engineering plans and specifications, are submitted with this application.

☒ The WSMP that includes this project, as defined in the attached engineering plans and specifications, was previously submitted.

Provide the following:

Public Water System Name: [redacted]

Owner Name: [redacted]

Water System No.: NC4092213

Serial Number of Deemed Complete WSMP: [redacted]

By my signature below, I certify that the previously submitted WSMP contains the information required by 15A NCAC 18C .0307(c) for the project defined in the attached engineering plans and specifications.

[redacted]
(Type or print name of authorized representative of Public Water System)

Managing Member
(Title of authorized representative of Public Water System)

(Signature of authorized representative of Public Water System) (Date)

PUBLIC / REDACTED

Application for Approval of Engineering Plans and Specifications for Water Supply Systems

In accordance with NCGS 130A-328, the Public Water Supply Section charges a fee for plan review. **Any documents submitted for review must be accompanied by a check payable to *DEQ-Public Water Supply Section* before the review will begin.**

There is a $25 fee for returned checks.

The charges for review of plans are shown below. Check one of the following

Distribution System fees		
☐	Construction of water lines, less than 5000 linear feet	**$150**
☐	Construction of water lines, 5000 linear feet or more	**$200**
☐	Other construction or alteration to a distribution system	**$ 75**
Ground Water System fees		
☒	Construction of a new ground water system or adding a new well	**$200**
☐	Alteration to an existing ground water system	**$100**
Surface water system fees		
☐	Construction of a new surface water intake or treatment facility	**$250**
☐	Alteration to existing surface water intake or treatment facility	**$150**
Other fees		
☐	Water System Management Plan review	**$ 75**
☐	Miscellaneous changes or maintenance not covered above	**$ 50**

Notes:

1. Projects for Tank Rehabilitation use separate "Application for Water Tank Reconditioning Plan Approval."
2. The fee is not refundable if the plans are not approved
3. Revisions to plans to address the Public Water Supply Section's or other state agency's comments do not incur an additional fee.
4. If one set of plans has multiple related items (such as a new well with construction of water lines) only one fee must be submitted for highest price item. The amounts are not cumulative, except for fees for Water System Management Plans.
5. **If the appropriate plan review fee is not received within ten days after the receipt of plans, specifications, and reports for approval, then all plan documents will be recycled. A new set of documents must then be submitted with the appropriate fee for approval.**

This approval does not address all applicable laws, rules, standards and criteria, and other approvals and licenses that may be required by the local, state or federal government.

The Public Water Supply Section has stamped and sealed the official copies of plans and specifications accompanying this application with the serial number of this application 21-010941. Any erasures, additions or alterations of the proposed improvements except those permitted in 15A NCAC 18C .0306 make this approval null and void.

This approval does not constitute a warranty of the design, construction or future operation of the water system.

Signed: RW Midgette

Robert W. Midgette, P.E.
Chief, Public Water Supply Section
Division of Water Resources

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Application for Approval of Engineering Plans and Specifications for Water Supply Systems

Other Information and Checklist Page

☒ Attached is a check for the proper plan review fee amount, in accordance with NCGS 130A-328. See note 4 on page 3.

This submittal includes one paper original with two digital (PDF) CDs of the following items, each item in separate folders:

☒ This completed "*Application for Approval of Engineering Plans and Specifications for Water Supply Systems*"

☒ The sealed plan drawings, separate file in PDF format for each drawing. Cover sheet must include drawings index:

☒ The project-specific Engineering Report (ER) describing the scope and purpose of the project and addressing each of the items listed in 15A NCAC 18C .0307(b), including the design basis of the project. [15A NCAC 18C .0307(b) (12)]:

☒ Specifications for this project; **OR**

☐ The project will use the following system's previously approved standard specifications for waterline extensions:

Name of System: _____

Serial Number: _____

The Serial Numbers for previously approved standard specifications can be found at the following website:

http://www.ncwater.org/?page=424

One of the following:

☐ Attached is a letter signed by an authorized representative of the Public Water System agreeing to serve the project and stating that the system has adequate supply;

OR

☒ The **Applicant** is the Public Water System.

If the project has sought funding (for example, DWSRF loan) list the program and (if available) the application or funding number below:

Program Name	**Application or Funding Number, if available**

Yes	No	
☐	☐	Project will be completed with significant expenditure of state moneys, greater than ten million dollars ($10,000,000) in accordance with G.S. 113A-9 (7a).
☐	☐	Project will cause substantial, permanent land-disturbing activity of an area greater than 10 acres of public lands in accordance with G.S. 113A-9 (11).

PUBLIC / REDACTED

ENGINEER'S REPORT

FOR

THE RESERVE AT FALLS LAKE
PHASE 4

WAKE COUNTY, NC

DECEMBER 2021

PUBLIC WATER SUPPLY SYSTEM

PREPARED BY:

FLM ENGINEERING
FLM Engineering, Inc.
PO Box 91727
Raleigh, NC 27675
919.802.7146

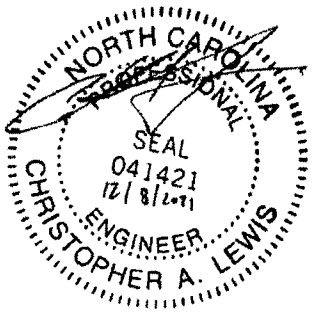


Table of Contents

Appendices

Engineer's Report
for
The Reserve at Falls Lake Phase 4

Franklin County, North Carolina

I. Description of any existing water system related to the project.

The Reserve at Falls Lake Phase 4 is a proposed 16-lot expansion of the existing Reserve at Falls Lake subdivision development along Durham Road (NC 98), approximately 1.1 miles east of the intersection of Creedmoor Road (NC 50) and Durham Road (NC 98), in Wake County, North Carolina.

Proposed phase 4 will consist of a standalone well system with a single well (well "TW2") to provide service for the proposed 16 lots. Based on the pump test data, well "TW2" can produce 12 GPM for the development, which is 8,640 gallons in a 12-hour pumping day. Utilizing 16 additional connections at 400 GPD per connection, 6,400 gallons per day are required, which is 8.8 GPM in a 12-hour pumping day.

II. Identification of the municipality, community, area, or facility to be served by the proposed water system.

Phase 4 of the Reserve at Falls Lake Subdivision has 16 planned lots to complete the subdivision. There are currently no plans for future expansions of the Reserve at Falls Lake beyond those 16 additional lots.

III. Name and address of the owner.

The developer of the project is:

Falls Lake Developers, LLC
7101 Creedmoor Road
Raleigh, NC 27613

The owner and operator of the completed project is:

Old North State Water Company, LLC
PO Box 10127
Birmingham, AL 35202-0127

IV. A description of the nature of the establishment and of the area to be served by the proposed water system.

Phase 4 of the Reserve at Falls Lake Subdivision is a single-family detached dwelling development designed in accordance with the Wake County subdivision ordinance. The area surrounding the project is residential or vacant. The proposed water system, well "TW2", will service an additional 16 homes within the development.

V. Provisions for future expansion or expansion of the water system.

Proposed Phase 4 completes the Reserve at Falls Lake Subdivision as planned, adding 16-lots.

VI. Projection of future water demand or requirements for service.

As mentioned above, there are currently no future expansion plans for the Reserve at Falls Lake Subdivision past proposed Phase 4.

VII. Any alternate plans for meeting the water supply requirements of the area.

Currently there are no alternate plans for meeting the water supply requirements of the area. Water demands are expected to be normal residential demands of 400 GPD per connection.

VIII. Financial considerations of the project include:

The project is a private development project. All of the water mains and appurtenances will be purchased and installed by the developer.

a. **Any alternate plans**
   Not applicable

b. **Cost of integral units**
   Not applicable

c. **Total cost**
   Not applicable

d. **Operating expenses and**
   Operating expenses will be accepted by Old North State Water Company, LLC. following construction and acceptance of the system.

e. **Methods of financing costs of construction, operation and maintenance.**
   Not applicable

IX. Population records and trends, present and anticipated future water demands, present and future yield of sources of water supply?

Wake County will continue to develop in the future as the Triangle area expands to this area, and as such water demands will continue to increase accordingly. Phase 4 of the Reserve at Falls Lake Subdivision will meet the demand of its customers.

X. Character of source or sources of water supply, including:

a. **Hydrological data**

   Not available.

b. **Stream flow rates**

Not applicable

c. Chemical, mineral, bacteriological and physical quantities, and

Not applicable

d. Location and nature of sources of pollution.

Not applicable

XI. Proposed water treatment processes including:

a. Criteria and basis of design of units
No Treatments are anticipated. PH is 7.5 units, which is within the normal limits of 6.5 to 8.5, and therefore PH adjustment is not anticipated, thus a caustic feed is not specified.

No SOCs or asbestos were detected within the sampling and lab data tests as indicated in Appendix J.

0.0085 mg/L of the VOC Toluene was identified; however, the amount is within the allowable limits of 1 mg/L. No other VOCs were detected within the sampling and lab data tests as indicated in Appendix J.

Two different radiological analysis were performed. One test identified 4.2 pCI/L of Gross Beta while the other test identified 1.9 pCi/L of Uranium. Both of the identified amounts are within the allowable limits (50 pCI/L for Gross Beta and 20 pCi/L for Uranium). No further radiological contaminants were identified as indicated in Appendix J.

b. Methods or procedures used in arriving at recommendations
See attached information

c. Reasons or justification for any deviations from conventional or indicated process or method.
Not applicable.

XII. The agreement with the supplier of purchased water and a hydraulic analysis showing the capability for supplying the purchased water.

Not applicable

XIII. A description of the basis of the sources, treatment, and distribution system, and the useful life of all sources, treatment, and transmission facilities including pipes, pumping stations and storage facilities.

Phase 4 of the Reserve at Falls Lake Subdivision will add 1,446 LF of 6" C900 DR18 PVC water distribution lines.

A submersible pump for Well "TW2" was selected based on data supplied through the yield test for flow rate, and through head requirements. Calculations for the pump selected are

attached in Appendix A. The well was chlorinated with 2lbs of granular High Test Hypochlorite (HTH) as identified by Kidd Well Drilling, LLC. in Appendices F & G.

A hydro-pneumatic tank was selected based on data supplied through the yield test for flow rate, and through lot calculations for required storage. Phase 4 of the Reserve at Falls Lake Subdivision will install a 5,000 gallon hydro-pneumatic tank to meet this requirement. The tank calculations are included as Appendix M.

Aside from standard chlorine disinfection (See Old North State Water Company Utility Specifications in Appendix K), no further water treatment is expected and no additional tanks shall be required as no wastewater shall be generated from the system.

XIV. A statement of maximum daily treated water supply and maximum daily demand for existing systems altering or expanding a distribution system.

The maximum well yield for existing well "TW2" is 8,640 gallons in a 12-hour pumping day. This should be more than adequate for 16 connections at a demand of 400 gallons per day, which is a total of 6,400 gallons per day for the system.

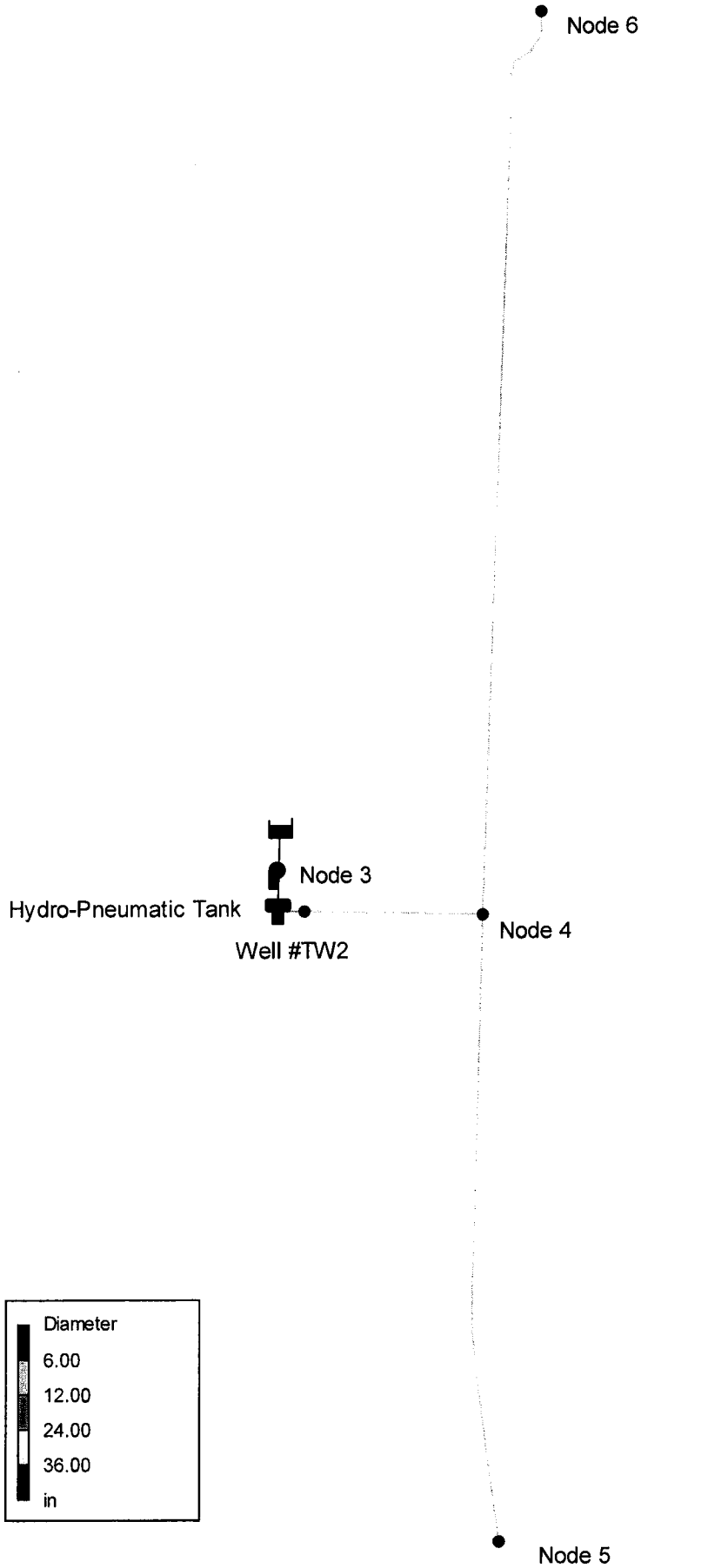
XV. A prioritized list of infrastructure improvements for existing systems.

Not applicable.

Appendix A – Hydraulic Model Overview

Falls Reserve Phase 4

PUBLIC / REDACTED



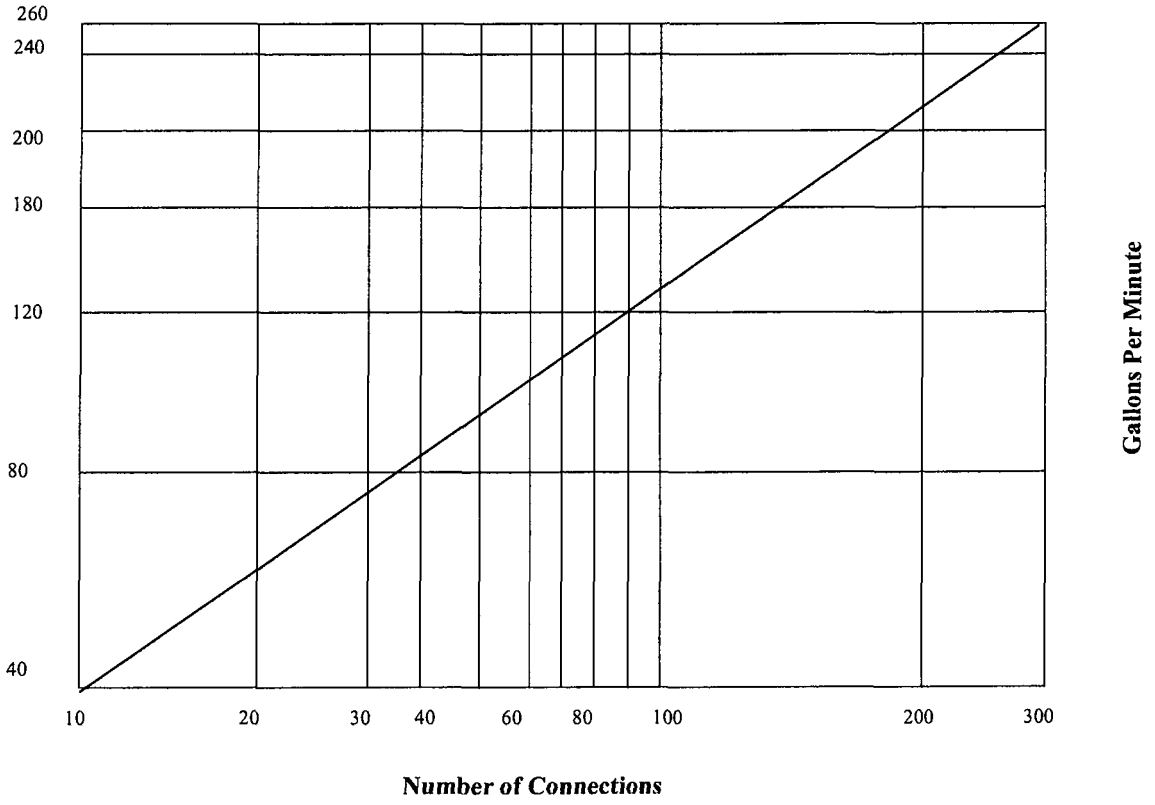
Modeled by FLM Enginering, Inc Using EPANET 2

Appendix B – Daily Demand Calculations

ITEM 4A.1 ATTACHMENT

W1300, Sub 83

PEAK DEMAND FOR RESIDENTIAL COMMUNITY WATER SYSTEMS
(Number of Connections vs Gallons per Minute)



Appendix C – TDH Calculations

FLMENGINEERING

Calculation of Total Dynamic Head (TDH)

$TDH = Static\ Lift + H_{Lf}$, where
$H_{Lf} = Head\ loss\ due\ to\ fruction\ from\ various\ piping\ componets$

Static Lift & Tank Pressure:

Depth to Pump:	192.00'
Tank Pressure (85 psi at 2.31 ft/psi):	196.35
Total =	388.35

Friction Head Loss (H_{Lf}):

Friction Loss, H_{Lf}, is calculated as follows:

$$\frac{H_{Lf}}{100'} = \frac{0.2083 \times \frac{100^{1.852}}{C} \times Q^{1.85}}{D^{4.865}}$$

Where:
C = Friction Coefficient (C = 140 selected for all pipe)
Q = Pumping Rate in GPM
D = Inside Diameter of Pipe in Inches

1 ¼-Inch Drop Pipe @ 12 GPM:

$$H_{Lf} = \frac{0.2083 \times \left(\frac{100}{C}\right)^{1.852} \times Q^{1.85}}{D^{4.865}} = \frac{0.2083 \times \left(\frac{100}{140}\right)^{1.852} \times 12^{1.85}}{1.25^{4.865}} = 3.74178$$

$$\frac{H_{Lf}}{100} = \frac{3.741785}{100} = 0.03741$$

2-Inch Well House Piping @ 12 GPM:

$$H_{Lf} = \frac{0.2083 \times \left(\frac{100}{C}\right)^{1.852} \times Q^{1.85}}{D^{4.865}} = \frac{0.2083 \times \left(\frac{100}{140}\right)^{1.852} \times 12^{1.85}}{2^{4.865}} = .3802196$$

$$\frac{H_{Lf}}{100} = \frac{0.3802196}{100} = 0.0038022$$

$Total\ H_{Lf} = \frac{H_{Lf}}{100} \times L\ (Equivalent\ Pipe\ Length\ per\ 100\ ft)$

$L = 192$ (192 LF of 1 ½" Drop Pipe)
$L = 20$ (20 LF of 2" Well House Piping)

$Total\ H_{Lf} = (190' \times .03740) + (20' \times 0.0038022) = 7.76026'$

$\boldsymbol{TDH = Static\ Lift\ \&\ Tank\ Pressure + H_{Lf} = 388.35' + 7.76026' = 395.6103'}$
Select Pump with at least 12 GPM at 395.6103' TDH

Use: Grundfos 15SQ15-290, 2.5HP Submersible Pump

PO Box 91727, Raleigh, NC 27675 p | 919.610.1051

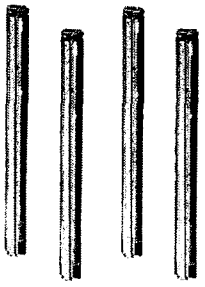
Appendix D – Pump Data and Curve

GRUNDFOS

Company name:
Created by:
Phone:

Date: 1/14/2020

Count	Description
1	**15 SQ15-290**



Product photo could vary from the actual product

Product No.: 96160152
3" multi-stage, submersible pump designed for domestic water supply, liquid transfer in tanks, irrigation and environmental applications. The pump has "floating" impellers, each with its own tungsten carbide/ceramic bearing.

The pump features soft starting and protection against dry-running, upthrust, overvoltage, undervoltage, overload and overtemperature.

The motor is a one-phase motor of the permanent magnet rotor type ensuring optimum efficiency within a wide load range.
The motor is fitted with a replaceable cable plug.

Liquid:

Pumped liquid:	Water
Maximum liquid temperature:	95 F
Max liquid temperature at 0.15 m/sec:	95 F

Technical:

Pump speed on which pump data is based:	10700 rpm
Actual calculated flow:	13.5 US gpm
Resulting head of the pump:	364 ft
Approvals on nameplate:	UL, cUL
Approvals on motor nameplate:	UL,CUL
Curve tolerance:	ISO9906:2012 3B

Materials:

Pump:	Polyethylene / Stainless steel DIN W.-Nr. 1.4301
Motor:	Stainless steel DIN W.-Nr. 1.4301 AISI 304

Installation:

Pump outlet:	1 1/4"NPT
Minimum borehole diameter:	2.99 in

Electrical data:

Motor type:	MS3
Power input - P1:	2.54 kW
Rated power - P2:	2.5 HP
Main frequency:	60 Hz
Rated voltage:	1 x 200-240 V

GRUNDFOS

Company name:
Created by:
Phone:

Date: 1/14/2020

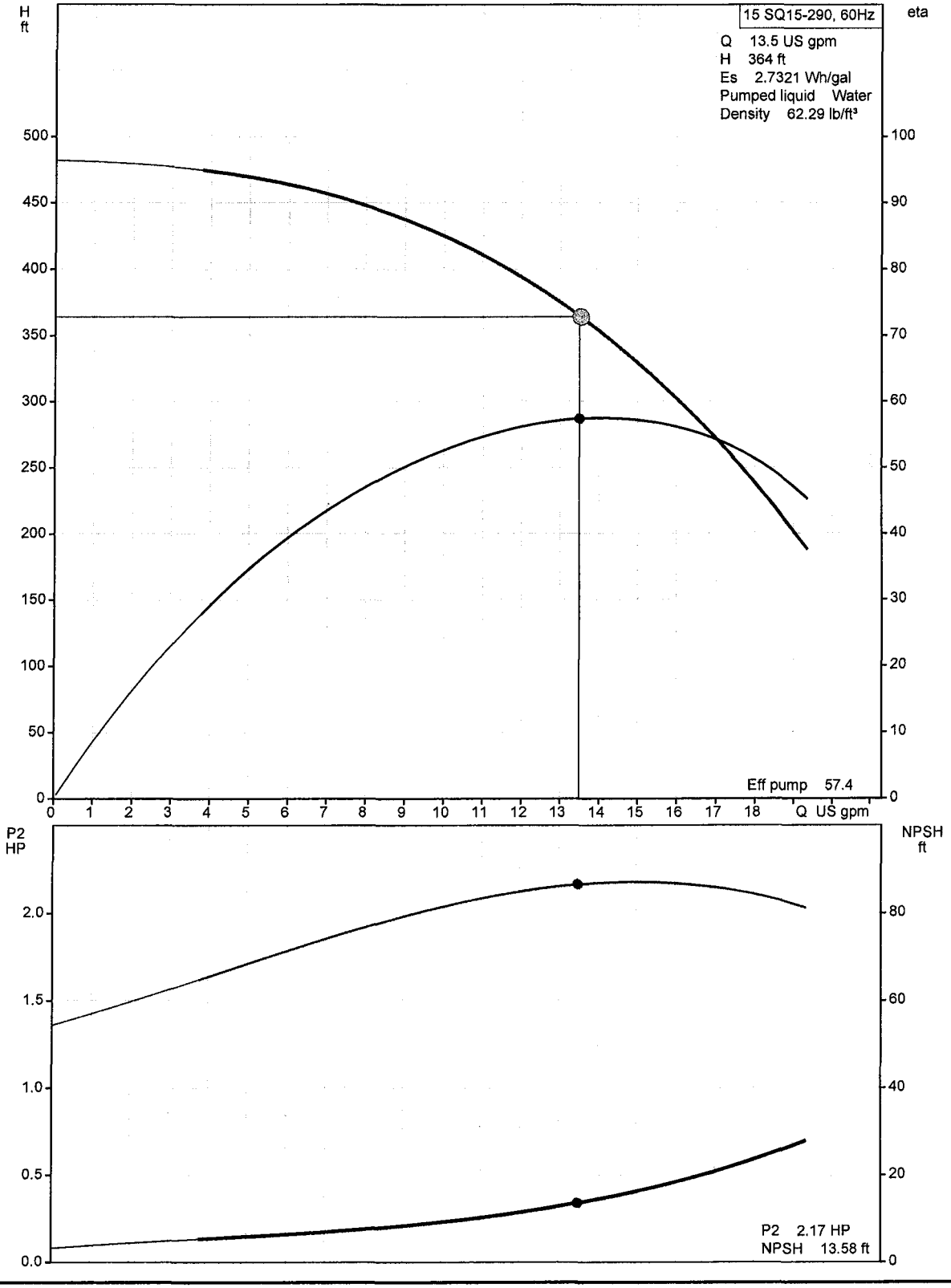
Count	Description	
	Service factor:	1.65
	Rated current:	12.3 A
	Power factor:	1.00
	Rated speed:	10700 rpm
	Start. method:	direct-on-line
	Enclosure class (IEC 34-5):	IP68
	Insulation class (IEC 85):	F
	Length of cable:	4.92 ft
	Motor Number:	96160538
	Others:	
	Country of origin:	MX
	Custom tariff no.:	8413.70.2004

GRUNDFOS

Company name:
Created by:
Phone:

Date: 1/14/2020

96160152 15 SQ15-290 60 Hz

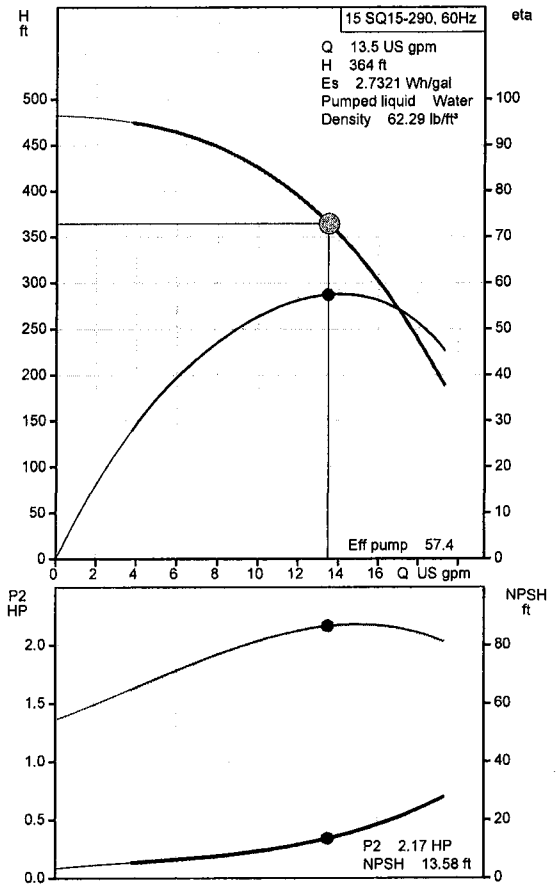


GRUNDFOS

Company name:
Created by:
Phone:

Date: 1/14/2020

Description	Value
General information:	
Product name:	15 SQ15-290
Product No.:	96160152
EAN:	5700398694397
	5700398694397
Technical:	
Pump speed on which pump data is based:	10700 rpm
Actual calculated flow:	13.5 US gpm
Resulting head of the pump:	364 ft
Stages:	8
Approvals on nameplate:	UL, cUL
Approvals on motor nameplate:	UL,CUL
Curve tolerance:	ISO9906:2012 3B
Pump Number:	96397381
Model:	B
Valve:	pump with built-in non-return valve
Materials:	
Pump:	Polyethylene / Stainless steel
	DIN W.-Nr. 1.4301
Motor:	Stainless steel
	DIN W.-Nr. 1.4301
	AISI 304
Installation:	
Pump outlet:	1 1/4"NPT
Minimum borehole diameter:	2.99 in
Liquid:	
Pumped liquid:	Water
Maximum liquid temperature:	95 F
Max liquid temperature at 0.15 m/sec:	95 F
Electrical data:	
Motor type:	MS3
Power input - P1:	2.54 kW
Rated power - P2:	2.5 HP
Main frequency:	60 Hz
Rated voltage:	1 x 200-240 V
Service factor:	1.65
Rated current:	12.3 A
Power factor:	1.00
Rated speed:	10700 rpm
Start. method:	direct-on-line
Enclosure class (IEC 34-5):	IP68
Insulation class (IEC 85):	F
Motor protection:	Y
Thermal protec:	internal
Length of cable:	4.92 ft
Motor Number:	96160538
Controls:	
CU 300/CU 301:	no communication possible
Others:	
Sales region:	Namreg
Country of origin:	MX
Custom tariff no.:	8413.70.2004



Appendix E – Well Site Approval Letter

ROY COOPER
Governor
MICHAEL S. REGAN
Secretary
S. DANIEL SMITH
Director

NORTH CAROLINA
Environmental Quality

February 3, 2021

Alicia H. Bartholomew, Land Owner
Marcia Ann Harrison, Land Owner
13009 Powell Rd
Wake Forest, NC 27587

Re: Preliminary Well Site Approval
Bayleaf Master – The Reserve
Water System No.: NC0392373
Wake County

Dear Ms. Bartholomew and Ms. Harrison:

On February 2, 2021 I met with Richard J. Grote, Manager of Greenpointe Development Corporation and conducted a preliminary investigation of the proposed well site listed below. The proposed well has been assigned a Water System Facility (WSF) Identification Number and Sampling Point Code as indicated below.

WSF ID No.	Sampling Point Code	Description of Well Site	Preliminary Latitude and Longitude
TR4	R131	100' radius around the proposed well location at the preliminary coordinates	35° 58' 55.31" -78° 39' 48.40"

This letter is provided by the Public Water Supply (PWS) Section, in accordance with Rule .0305(b) of the *Rules Governing Public Water Systems* (15A NCAC 18C), to provide permission to drill a well at the listed site in order to establish the quality and quantity of water and the suitability of the well as a source for a public water system.

In addition, this "preliminary well site approval" is to acknowledge that according to the information and documentation provided, we understand that the proposed well is located on a lot so that the area within 100 feet of the well is owned or controlled by the person supplying the water and that the supplier of water will protect the well lot from potential sources of pollution and construct landscape features for drainage and diversion of pollution as required in 15A NCAC 18C .0203(a)(1). In addition, we understand that you have determined that the proposed well location satisfies the minimum horizontal separation distances specified in 15A NCAC 18C .0203(a)(2) and summarized in the following table:

Distance (in feet)	Potential Source of Pollution
100	• From any sanitary sewage disposal system, sewer, or sewer pipe (unless sewer is constructed of water main materials and joints, in which the sewer pipe shall be at least 50 feet from the well. • From buildings, mobile homes, permanent structures, animal houses or lots, cultivated areas to which chemicals are applied. • From surface water. • From a chemical or petroleum fuel underground storage tank with secondary containment. • From any other potential source of pollution not listed in this table.
200	• From a subsurface sanitary sewage treatment and disposal system designed for 3,000 or more gallons of wastewater a day, unless your well water source is a confined aquifer.
300	• From any cemetery or burial ground.
500	• From a septage disposal site. • From a chemical or petroleum fuel underground storage tank without secondary containment. • From the boundary of a ground water contamination area. • From a sanitary landfill or non-permitted non-hazardous solid waste disposal site.
1,000	• From a hazardous waste disposal site or in any location which conflicts with the North Carolina Hazardous Waste Management Rules cited in NCAC 13A.

We also understand that the owner will ensure that the lot is graded or sloped so that surface water is diverted away from the wellhead and that the well shall not have greater than a 1 percent chance of flooding in accordance with 15A NCAC 18C .0203(a)(4). **Several natural drainage paths were observed to the southeast of the well site. Therefore, grading or diversions may be needed at the 100-foot radius to direct all offsite drainage around the well lot. Additionally, there is a mapped surface water feature approximately 120 feet northwest of the well site. The 100-foot setback from the well to the surface water must be maintained.**

PWS Section "Authorization to Construct" and "Final Approval"

Subsequent to well drilling and evaluating water quality and quantity (e.g., collecting and analyzing samples and performing a 24-hour well drawdown test) the owner must submit an "Application for Approval of Engineering Plans and Specifications For Water Supply Systems" to document proposed well completion (e.g., selected pump, wellhead and well house details) and associated transmission lines, treatment and/or storage facilities and other critical information about the public water system. In accordance with 15A NCAC 18C .0305(a) no construction shall be undertaken until the PWS Section issues an "Authorization to Construct" letter. In addition, in accordance with 15A NCAC 18C .0309(a) the new well and all associated treatment, storage or transmission/distributions lines shall not be placed into service until the PWS Section has issued a "Final Approval." These steps are described in the Engineering Planning and Development Guidance Document available at https://files.nc.gov/ncdeq/Water%20Resources/files/pws/planreview/EPD_Guidance_July2019.pdf

Be aware that plans, specifications and reports for the new well must be certified by a Professional Engineer. Therefore, it is recommended that a Professional Engineer or Licensed Geologist (or their designated representative) experienced in the construction of

water supply wells, conduct on-site monitoring of well construction. At a minimum, certain critical phases of well construction such as installation and grouting of casing should be monitored. In many situations it may be necessary to go beyond the minimum requirements in order to protect the public health and ground water resources.

Other Agency Approvals Required

This PWS Section "preliminary well site approval" letter does not address other agency applicable rules and requirements pertaining to well construction and registration.

Local county well construction rules and ordinances may include additional requirements.

Well construction must meet the standards specified in the *Well Construction Standards* (15A NCAC 2C). Be aware that these rules require a permit to be obtained from the Water Quality Regional Operations Section of the Division of Water Resources before the well is constructed if it is anticipated that the new well will be part of a water system with a design capacity of 100,000 gallons per day or greater. In addition, these rules require that wells be constructed by a properly certified well driller. For more information, call 919-707-3668 or go to:
https://deq.nc.gov/about/divisions/water-resources/water-resources-permits/wastewater-branch/ground-water-protection/well-program#largecapwell

Sincerely,

Sally Castle, EI
Environmental Engineer
Public Water Supply Section
Raleigh Regional Office

Cc: Central Files – Public Water Supply Section
Regional Files – Public Water Supply Section
Jon D. Frazier, PE, LEED AP, FLM Engineering – Electronic Copy
Richard J. Grote, Manager, Greenpointe Development Corporation – Electronic Copy
Wake County Health Department

Appendix F – Well Construction Verification & Drillers Log and Engineers Well Construction Verification

PUBLIC / REDACTED

FLMENGINEERING

August 12, 2021

Plan Review Unit
Division of Water Resources, Public Water Supply Section

Reference: Falls Reserve Phase 4 Subdivision
Engineer's Well Construction Verification

To Whom It May Concern:

On March , 2031 Kidd Well Drilling certified on Form GW-1 that Wells #TW2, at Falls Reserve Phase 4 Subdivision was constructed in accordance with the 15A.NCAC 2C. Well Construction Standards. Thus, I hereby certify that the subject wells were constructed in accordance with the 15A.NCAC 2C. Well Construction Standards.

Please let me know if you have any questions or need any additional information.

Sincerely,

Jon D. Frazier, PE
Principal
919.610.1051
jfrazier@flmengineering.com

NORTH CAROLINA PROFESSIONAL SEAL 033775 ENGINEER JONATHAN D. FRAZIER 8/5/21

PO Box 91727, Raleigh, NC 27675 p | 919.610.1051

NON RESIDENTIAL WELL CONSTRUCTION RECORD

North Carolina Department of Environment and Natural Resources- Division of Water Quality

WELL CONTRACTOR CERTIFICATION # 2143-A

1. WELL CONTRACTOR:
WAYNE KIDD
Well Contractor (individual) Name
KIDD WELL DRILLING LLC
Well Contractor Company Name
STREET ADDRESS 13408 OLD CREEDMOOR RD
LAKE FOREST NC 27587
City or Town State Zip Code
919-848-8602
Area code - Phone number

2. WELL INFORMATION:
SITE WELL ID #(if applicable) TW 2
STATE WELL PERMIT#(if applicable)
DWQ or OTHER PERMIT #(if applicable)
WELL USE (Check Applicable Box) Monitoring ☐ Municipal/Public ☑
Industrial/Commercial ☐ Agricultural ☐ Recovery ☐ Injection ☐
Irrigation ☐ Other ☐ (list use)
DATE DRILLED 3/2/21
TIME COMPLETED 5:00 AM ☐ PM ☑

3. WELL LOCATION:
CITY: RALEIGH COUNTY WAKE
FALLS RESERVE PHASE 4
(Street Name, Numbers, Community, Subdivision, Lot No., Parcel, Zip Code)
TOPOGRAPHIC / LAND SETTING:
☑ Slope ☐ Valley ☐ Flat ☐ Ridge ☐ Other
(check appropriate box)
LATITUDE 35.981952
LONGITUDE 78.662525
May be in degrees, minutes, seconds or in a decimal format
Latitude/longitude source: ☑ GPS ☐ Topographic map
(location of well must be shown on a USGS topo map and attached to this form if not using GPS)

4. FACILITY - is the name of the business where the well is located.
FACILITY ID #(if applicable)
NAME OF FACILITY
STREET ADDRESS
City or Town State Zip Code
CONTACT PERSON FALLS LAKE DEVELOPERS LLC
MAILING ADDRESS 7101 CREEDMOOR RD Suite 122
RALEIGH NC 27613
City or Town State Zip Code
(919) 201-7480 RICK GROTE
Area code - Phone number

5. WELL DETAILS:
a. TOTAL DEPTH: 805'
b. DOES WELL REPLACE EXISTING WELL? YES ☐ NO ☑
c. WATER LEVEL Below Top of Casing: 20 FT.
(Use "+" If Above Top of Casing)

d. TOP OF CASING IS +3 FT. Above Land Surface*
*Top of casing terminated at/or below land surface may require a variance in accordance with 15A NCAC 2C .0118.
e. YIELD (gpm): 15 METHOD OF TEST AIR LIFT
f. DISINFECTION: Type GRANULAR Amount 2 LBS
g. WATER ZONES (depth):
From 10 Rock 205 From ____ To ____
From 560 Rock 805 From ____ To ____
From ____ To ____ From ____ To ____

6. CASING:

	Depth		Diameter	Thickness/ Weight	Material
From +3	To 87	Ft.	8	.322	GALV. STEEL
From ____	To ____	Ft.			
From ____	To ____	Ft.			

7. GROUT:

	Depth		Material	Method
From 0	To 3	Ft.	PORTLAND	POUR
From 3	To 30	Ft.	BENTONITE	PUMP
From 30	To 84	Ft.	PORTLAND	PRESSURE

8. SCREEN:

	Depth		Diameter	Slot Size	Material
From ____	To ____	Ft.	____ in.	____ in.	
From ____	To ____	Ft.	____ in.	____ in.	
From ____	To ____	Ft.	____ in.	____ in.	

9. SAND/GRAVEL PACK:

Depth			Size	Material
From ____	To ____	Ft.		
From ____	To ____	Ft.		
From ____	To ____	Ft.		

10. DRILLING LOG

From	To	Formation Description
0	4	SOFT CLAY
4	56	ALLUVIAL SOIL
56	205	MED GRAY ROCK
205	206	BROKEN ROCK
206	440	MED GRAY ROCK
440	805	HARD MED GRAY ROCK

11. REMARKS:
DRIVE SHOE INSTALLED
BOTH WATER BEARING ZONES
FELL OFF SHARPLY

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

SIGNATURE OF CERTIFIED WELL CONTRACTOR — DATE 3/16/21

WAYNE KIDD
PRINTED NAME OF PERSON CONSTRUCTING THE WELL

Submit the original to the Division of Water Quality within 30 days. Attn: Information Mgt., 1617 Mail Service Center – Raleigh, NC 27699-1617 Phone No. (919) 733-7015 ext 568.

Form GW-1b
Rev. 7/05

Appendix G – Well Yield and Drawdown

CASING GROUTED? [ ] ; [ ]) STATIC WATER LEVEL: 21ft

TEST PUMP: MAKE: Goulds MODEL: 40GS50 HP: 5 PH: 1

PIPE SIZE: 2 WIRE SIZE: 6-3 WIRE LENGTH: 370ft INTAKE DEPTH: 210 FT

FLOW MEASURING DEVICE: Sensus W160 Turbine CHLORINATION TYPE: HTH AMOUNT: 2lbs

TEST STARTED: DATE: 3/21/2021 TIME: 9:00 AM PUMPING WATER LEVEL: 192 FT
AFTER 24 HOURS @ 12 GPM

TEST STOPPED: DATE: 3/22/2021 TIME: 9:00 AM WELL YIELD: 12 GPM

TIME	WATER LEVEL		PUMPING RATE		HEAD	TURBIDITY	COMMENTS
9:00 AM	82 PSI	21 FT	69	GPM	24	dingy	Throttled before starting
9:05 AM	52 PSI	89.9 FT	67	GPM			
9:10 AM	36 PSI	127 FT	64	GPM			
9:15 AM	30 PSI	141 FT	62	GPM			
9:20 AM	23 PSI	157 FT	61	GPM			
9:25 AM	20 PSI	164 FT	59	GPM			
9:30 AM	17 PSI	171 FT	58	GPM	18	clear	
9:35 AM	14 PSI	178 FT	58	GPM			
9:40 AM	12 PSI	182 FT	58	GPM			
9:45 AM	11 PSI	185 FT	58	GPM			
9:50 AM	7 PSI	194 FT	57	GPM			Throttled to 28gpm @ 80psi head
9:55 AM	7 PSI	194 FT	28	GPM	80	milky	
10:00 AM	7 PSI	194 FT	28	GPM			Field Samples
10:10 AM	7 PSI	194 FT	28	GPM			

KIDD WELL DRILLING

TIME	WATER LEVEL		PUMPING RATE		HEAD	TURBIDITY	COMMENTS
10:20 AM	6 PSI	196 FT	28	GPM	78	milky	Throttled to 15gpm @ 96psi head
10:30 AM	7 PSI	194 FT	15	GPM	96	clear	
10:40 AM	8 PSI	192 FT	15	GPM			
10:50 AM	8 PSI	192 FT	15	GPM			
11:00 AM	9 PSI	189 FT	15	GPM			
11:15 AM	9 PSI	189 FT	15	GPM			
11:30 AM	9 PSI	189 FT	15	GPM			
11:45 AM	10 PSI	187 FT	15	GPM			
12:00 PM	10 PSI	187 FT	15	GPM			
12:30 PM	10 PSI	187 FT	15	GPM			
1:00 PM	10 PSI	187 FT	15	GPM		clear	Field samples
2:00 PM	9 PSI	189 FT	15	GPM			
3:00 PM	9 PSI	189 FT	15	GPM	94		
4:00 PM	8 PSI	192 FT	15	GPM	93	clear	Throttled to 14gpm @ 97psi head
5:00 PM	8 PSI	192 FT	14	GPM	96		
6:00 PM	8 PSI	192 FT	14	GPM			
7:00 PM	7 PSI	194 FT	14	GPM	94		Throttled to 12gpm @ 99psi head
8:00 PM	7 PSI	194 FT	12	GPM	99		8:30 PM pull field samples
9:00 PM	8 PSI	192 FT	12	GPM	99		Pull Lab samples
10:00 PM	8 PSI	192 FT	12	GPM			
11:00 PM	8 PSI	192 FT	12	GPM	99		
12:00 AM	8 PSI	192 FT	12	GPM			
1:00 AM	8 PSI	192 FT	12	GPM			Field samples
2:00 AM	8 PSI	192 FT	12	GPM			
3:00 AM	8 PSI	192 FT	12	GPM			
4:00 AM	8 PSI	192 FT	12	GPM			
5:00 AM	8 PSI	192 FT	12	GPM			
6:00 AM	8 PSI	192 FT	12	GPM	99		Field samples
7:00 AM	8 PSI	192 FT	12	GPM			
8:00 AM	8 PSI	192 FT	12	GPM			Field samples
9:00 AM	8 PSI	192 FT	12	GPM	99		
	PSI	FT		GPM			
	PSI	FT		GPM			
	PSI	FT		GPM			
	PSI	FT		GPM			
	PSI	FT		GPM			
	PSI	FT		GPM			
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	PSI	FT		GPM			
	PSI	FT		GPM			
	PSI	FT		GPM			
	PSI	FT		GPM			

SUBDIVISION NAME: Falls Reserve Ph4 TW2

3-22-21

CASING GROUTED? [ ] ; [ ]) STATIC WATER LEVEL: 21ft

TEST PUMP: MAKE: Goulds MODEL: 40GS50 HP: 5 PH: 1

PIPE SIZE: 2 WIRE SIZE: 6-3 WIRE LENGTH: 370ft INTAKE DEPTH: 210 FT

FLOW MEASURING DEVICE: Sensus W160 Turbine CHLORINATION TYPE: HTH AMOUNT: 2lbs

TEST STARTED: DATE: 3/21/2021 TIME: 9:00 AM PUMPING WATER LEVEL: 192 FT
AFTER 24 HOURS @ 12 GPM

TEST STOPPED: DATE: 3/22/2021 TIME: 9:00 AM WELL YIELD: 12 GPM

TIME	WATER LEVEL		PUMPING RATE		HEAD	TURBIDITY	COMMENTS
9:00 AM	82 PSI	21 FT	69	GPM	24	dingy	Throttled before starting
9:05 AM	52 PSI	89.9 FT	67	GPM			
9:10 AM	36 PSI	127 FT	64	GPM			
9:15 AM	30 PSI	141 FT	62	GPM			
9:20 AM	23 PSI	157 FT	61	GPM			
9:25 AM	20 PSI	164 FT	59	GPM			
9:30 AM	17 PSI	171 FT	58	GPM	18	clear	
9:35 AM	14 PSI	178 FT	58	GPM			
9:40 AM	12 PSI	182 FT	58	GPM			
9:45 AM	11 PSI	185 FT	58	GPM			
9:50 AM	7 PSI	194 FT	57	GPM			Throttled to 28gpm @ 80psi head
9:55 AM	7 PSI	194 FT	28	GPM	80	milky	
10:00 AM	7 PSI	194 FT	28	GPM			Field Samples
10:10 AM	7 PSI	194 FT	28	GPM			

	PSI	FT	
	PSI	FT	
	PSI	FT	
	PSI	FT	

COMMENTS:

SUBDIVISION NAME: Falls Reserve Ph4 TW2 PAGE # 3

3-22-21

Appendix H – Well Site Deed

Appendix I – Construction Plans & Details

Appendix J –Sampling and Lab Data

EMSL Analytical, Inc. PUBLIC / REDACTED
2500 Gateway Centre Blvd., Suite 600 Morrisville, NC 27560
Phone/Fax: (919) 465-3900 / (919) 465-3950
http://www.EMSL.com / raleighlab@emsl.com

EMSL Order ID: 292102683
Customer ID: KDWD25
Customer PO:
Project ID:

Attn: Wayne Kidd
Kidd Well Drilling, LLC
13408 Old Creedmoor Road
Wake Forest, NC 27587

Phone: (919) 818-8224
Fax:
Received: 03/22/2021
Analyzed: 04/05/2021

Proj: Falls Reserve Phase 4, TW#2

Test Report: Determination of Asbestos Structures >10µm in Drinking Water Performed by the 100.2 Method (EPA 600/R-94/134)

Sample ID Client / EMSL	Sample Filtration Date/Time	Original Sample Vol. Filtered (ml)	Effective Filter Area (mm^2)	Area Analyzed (mm^2)	ASBESTOS Asbestos Types	Fibers Detected	Analytical Sensitivity	Concentration	Confidence Limits
							MFL (million fibers per liter)		
1 292102683-0001	3/22/2021 01:21 PM	100	1263	0.0780	None Detected	ND	0.16	<0.16	0.00 - 0.60

Collection Date/Time: 03/21/2021 20:56 PM

Analyst(s)
Billy Barnes (1)

Billy Barnes, Asbestos Lab Manager
or Other Approved Signatory

Any questions please contact Billy Barnes.

Initial report from: 04/05/2021 11:02:21

ITEM 4A.1 ATTACHMENT

OrderID: 292102683

PUBLIC / REDACTED

Asbestos Chain of Custody

W1300, Sub 83
EMSL ANALYTICAL, INC.
2500 GATEWAY CENTRE BLVD
STE 600
NC 27560
465-3900
465-3950

EMSL ANALYTICAL LABORATORY • PRODUCTS

Client: Kidd Well Drilling, LLC
Order: 292102683
Disposition: *Discard after 5/21/2021*

Test: TEM EPA 100.2 (>10µm) #Samples: 1
Project: Falls Reserve Phase 4, TW#2

Company: KIDD WELL DRILLING	EMSL-Bill to: ☑ Same ☐ Different If Bill to is Different note instructions in Comments** *Third Party Billing requires written authorization from third party*
Street: 13408 OLD CREEDMOOR RD	
City: WAKE FOREST State/Province: NC	Zip/Postal Code: 27587 Country:
Report To (Name): WAYNE KIDD	Fax #:
Telephone #: 919 818 8224	Email Address: kiddwell@bellsouth.net
Project Name/Number: FALLS RESERVE PHASE 4 TW#2	
Please Provide Results: ☐ Fax ☐ Email	Purchase Order: U.S. State Samples Taken:

Turnaround Time (TAT) Options* – Please Check

☐ 3 Hour ☐ 6 Hour ☐ 24 Hour ☐ 48 Hour ☐ 72 Hour ☐ 96 Hour ☐ 1 Week ☑ 2 Week

*For TEM Air 3 hours/6 hours, please call ahead to schedule.*There is a premium charge for 3 Hour TEM AHERA or EPA Level II TAT. You will be asked to sign an authorization form for this service. Analysis completed in accordance with EMSL's Terms and Conditions located in the Analytical Price Guide.

PCM - Air
- ☐ NIOSH 7400
- ☐ w/ OSHA 8hr. TWA

PLM - Bulk (reporting limit)
- ☐ PLM EPA 600/R-93/116 (<1%)
- ☐ PLM EPA NOB (<1%)

Point Count
- ☐ 400 (<0.25%) ☐ 1000 (<0.1%)

Point Count w/Gravimetric
- ☐ 400 (<0.25%) ☐ 1000 (<0.1%)
- ☐ NYS 198.1 (friable in NY)
- ☐ NYS 198.6 NOB (non-friable-NY)
- ☐ NIOSH 9002 (<1%)

TEM – Air ☐ 4-4.5hr TAT (AHERA only)
- ☐ AHERA 40 CFR, Part 763
- ☐ NIOSH 7402
- ☐ EPA Level II
- ☐ ISO 10312

TEM - Bulk
- ☐ TEM EPA NOB
- ☐ NYS NOB 198.4 (non-friable-NY)
- ☐ Chatfield SOP
- ☐ TEM Mass Analysis-EPA 600 sec. 2.5

TEM – Water: EPA 100.2
- Fibers ≥10µm ☐ Waste ☑ Drinking
- All Fiber Sizes ☐ Waste ☐ Drinking

TEM- Dust
- ☐ Microvac - ASTM D 5755
- ☐ Wipe - ASTM D6480
- ☐ Carpet Sonication (EPA 600/J-93/167)

Soil/Rock/Vermiculite
- ☐ PLM CARB 435 - A (0.25% sensitivity)
- ☐ PLM CARB 435 - B (0.1% sensitivity)
- ☐ TEM CARB 435 - B (0.1% sensitivity)
- ☐ TEM CARB 435 - C (0.01% sensitivity)
- ☐ EPA Protocol (Semi-Quantitative)
- ☐ EPA Protocol (Quantitative)

Other:
- ☐

☐ **Check For Positive Stop – Clearly Identify Homogenous Group**

Samplers Name: JAMES BLALOCK Samplers Signature: JBlalock

Sample #	Sample Description	Volume/Area (Air) HA # (Bulk)	Date/Time Sampled
	ASBESTOS		3-21-21 / 856PM
	rwdp 2.8°C		

Client Sample # (s): Total # of Samples:

Relinquished (Client): Date: Time:

Received (Lab): Date: 3/22/21 Time: 11:25

Comments/Special Instructions:

Florida Radiochemistry Services, Inc.
5456 Hoffner Ave., Suite 201 Orlando, FL 32812
Phone: (407) 382-7733 Fax: (407- 382-7744

RADIOLOGICAL ANALYSIS

Note: All information must be supplied for compliance credit.

WATER SYSTEM ID #: N/A **County:** x

Name of Water System: Falls Preserve Phase 4 -

Sample Type: [ ] Entry Point - Single Sample [ ] Entry Point - Composite [X] Special/Non-compliance

Mail Results to (system representative):

Kidd Well Company

13408 Old Creedmoor Road

Wake Forest NC, 27587

Phone: (919) 848-8602

Fax:

Collection Data

Period	Date (MM/DD/YY)	Time (Specify AM or PM)	Loc Code	Sample Location	Collected By
Single or 1st Qtr	03/21/21	08:59 PM	TW2-D01	Well - Test Well 2	James Blalock
2nd Qtr					
3rd Qtr					
4th Qtr					

LABORATORY ID #: 12709 [ ] SAMPLE UNSATISFACTORY [ ] RESAMPLE REQUIRED

CONTAM CODE	CONTAMINANT	METHOD CODE	REQUIRED REPORTING LIMIT (RRL)	NOT DETECTED (i.e. < RRL)	QUANTIFIED RESULTS* (pCi/L)	COUNTING ERROR	ALLOWABLE LIMIT
4002	Gross Alpha	900.0	3 pCi/L	X		1.0	15 pCi/L
4004	Radon	----	100 pCi/L				N/A
4006	Uranium	----	2 pCi/L				20.1 pCi/L
4010	Combined Radium	N/A	N/A	N/A			5 pCi/L
4020	Radium 226	903.1	1 pCi/L	X		0.1	3 pCi/L
4030	Radium 228	Ra-05	1 pCi/L	X		0.6	2 pCi/L
4100	Gross Beta	900.0	4 pCi/L		4.2	1.0	50 pCi/L

Note: If result exceeds allowable limit, the laboratory must fax anaytical results to the State within 48 hours.

	DATE:	TIME:
ANALYSES BEGUN:	04/05/21	08:40 AM
ANALYSES COMPLETED:	04/12/21	11:52 AM

Laboratory Log #: 2104005-03 **Certified By:** Mike Naumann

COMMENTS:

PUBLIC / REDACTED

Environmental Conservation Laboratories, Inc.
102-A Woodwinds Industrial Court
Cary, NC 27511
Ph: (919) 467-3090 Fax: (919) 467-3515

www.encolabs.com

RADIOLOGICAL ANALYSIS

Water Systems ID #: **N/A** County : **x**

Name of Water System: **Falls Preserve Phase 4 -**

Sample Type: [X] Single Sample - Entry Point [ ] Composite Sample - Entry Point [X] Special/Non Compliance

Location Where Collected: **Well: Test Well 2**

Facility ID No.: **D01**

Sample Point: **TW2**

Mail Results to:

Kidd Well Company (KI011)

Attn: Wayne Kidd

13408 Old Creedmoor Road

Wake Forest, NC 27587

Phone #: ***(919) 848-8602***

Fax #:

Collection Data			
Period	Date (MM/DD/YY)	Time (AM or PM)	Collected By
Single or 1st Qtr	03/21/21	8:59 pm	James Blalock
2ndQtr			
3rdQtr			
4thQtr			

LABORATORY ID #: 37724 [ ] **SAMPLE UNSATISFACTORY** [ ] **RESAMPLE REQUIRED**

CONTAM CODE	CONTAMINANT	METHOD CODE	REQUIRED REPORTING LIMIT R.R.L.	NOT DETECTED (i.e. <R.R.L.) (X)	QUANTIFIED RESULTS*	COUNTING ERROR	ALLOWABLE LIMIT
4002	Gross Alpha		3 pCi/L		pCi/L		15 pCi/L
4004	Radon		100 pCi/L		pCi/L		N/A
4006	Uranium	200.8	0.67 pCi/L		**1.90 pCi/L**	0.0	20.1 pCi/L
4010	Combined Radium		N/A	N/A	pCi/L		5 pCi/L
4020	Radium 226		1 pCi/L		pCi/L		3 pCi/L
4030	Radium 228		1 pCi/L		pCi/L		2 pCi/L
4044	Potassium 40 (Total)		4 pCi/L		pCi/L		N/A
4100	Gross Beta		4 pCi/L		pCi/L		50 pCi/L
4102	Tritium		1000 pCi/L		pCi/L		20000 pCi/L
4172	Strontium 89		10 pCi/L		pCi/L		N/A
4174	Strontium 90		2 pCi/L		pCi/L		8 pCi/L
4264	Iodine 131		1 pCi/L		pCi/L		N/A
4270	Cesium 134		10 pCi/L		pCi/L		N/A

*Note: If result exceeds allowable limit, the laboratory must fax analytical results to the State within 48 hours.

	DATE:	TIME:
ANALYSES BEGUN:	**03/23/2021**	**11:31 am**
ANALYSES COMPLETED:	**03/23/2021**	**1:28 pm**

Laboratory Log #: **CE04299-01** Certified By: Bill Scott Bill Scott

COMMENTS:

W1300, Sub 83

PUBLIC / REDACTED

Environmental Conservation Laboratories, Inc.
102-A Woodwinds Industrial Court
Cary, NC 27511
Ph: (919) 467-3090 Fax: (919) 467-3515

www.encolabs.com

PESTICIDES AND SYNTHETIC ORGANIC CHEMICALS (SOCs) ANALYSIS

WATER SYSTEM ID #: **N/A** County: **x**

Name of Water System: **Falls Preserve Phase 4**

Sample Type: ☐ Entry Point ☒ Special/Non-compliance

Location Where Collected: **Well: Test Well 2(SOC) - -**

Facility ID No.: **D01**

Sample Point: **TW2**

Collected By: **James Blalock**

Collection Date	Collection Time
03/21/21	**09:08 pm**

Mail Results to:

Kidd Well Company (KI011)
Attn: Wayne Kidd
13408 Old Creedmoor Road
Wake Forest, NC 27587

Phone #: **(919) 848-8602**
Fax #:

LABORATORY ID #: 37724 ☐ SAMPLE UNSATISFACTORY ☐ RESAMPLE REQUIRED

CONTAM CODE	CONTAMINANT	METHOD CODE	REQUIRED REPORTING LIMIT (R.R.L.)	NOT DETECTED (i.e < R.R.L.) (X)	QUANTIFIED RESULTS*	ALLOWABLE LIMIT
2005	Endrin	505	0.00001 mg/L	X	mg/L	0.002 mg/L
2010	gamma-BHC	505	0.00002 mg/L	X	mg/L	0.0002 mg/L
2015	Methoxychlor	505	0.0001 mg/L	X	mg/L	0.04 mg/L
2020	Toxaphene	505	0.001 mg/L	X	mg/L	0.003 mg/L
2031	Dalapon	515.4	0.001 mg/L	X	mg/L	0.2 mg/L
2035	Bis(2-ethylhexyl) adipate	525.2	0.0006 mg/L	X	mg/L	0.4 mg/L
2036	Oxamyl	531.1	0.002 mg/L	X	mg/L	0.2 mg/L
2037	Simazine	525.2	0.00007 mg/L	X	mg/L	0.004 mg/L
2039	Bis(2-ethylhexyl)phthalate	525.2	0.00132 mg/L	X	mg/L	0.006 mg/L
2040	Picloram	515.4	0.0001 mg/L	X	mg/L	0.5 mg/L
2041	Dinoseb	515.4	0.0002 mg/L	X	mg/L	0.007 mg/L
2042	Hexachlorocyclopentadiene	505	0.0001 mg/L	X	mg/L	0.05 mg/L

Environmental Conservation Laboratories, Inc.
102-A Woodwinds Industrial Court
Cary, NC 27511
Ph: (919) 467-3090 Fax: (919) 467-3515

www.encolabs.com

PESTICIDES AND SYNTHETIC ORGANIC CHEMICALS (SOCs) ANALYSIS

(continued)

WATER SYSTEM ID #: **N/A**

Name of Water System: **Falls Preserve Phase 4**

Facility ID No.: ***D01***

Sample Point: **TW2**

Collection Date	Collection Time
03/21/21	**09:08 pm**

LABORATORY ID #: 37724

CONTAM CODE	CONTAMINANT	METHOD CODE	REQUIRED REPORTING LIMIT (R.R.L.)	NOT DETECTED (i.e < R.R.L.) (X)	QUANTIFIED RESULTS*	ALLOWABLE LIMIT
2046	Carbofuran	531.1	0.0009 mg/L	X	mg/L	0.04 mg/L
2050	Atrazine	525.2	0.0001 mg/L	X	mg/L	0.003 mg/L
2051	Alachlor	505	0.0002 mg/L	X	mg/L	0.002 mg/L
2065	Heptachlor	505	0.00004 mg/L	X	mg/L	0.0004 mg/L
2067	Heptachlor epoxide	505	0.00002 mg/L	X	mg/L	0.0002 mg/L
2105	2,4-D	515.4	0.0001 mg/L	X	mg/L	0.07 mg/L
2110	2,4,5-TP (Silvex)	515.4	0.0002 mg/L	X	mg/L	0.05 mg/L
2274	Hexachlorobenzene	505	0.0001 mg/L	X	mg/L	0.001 mg/L
2306	Benzo(a)pyrene	525.2	0.00002 mg/L	X	mg/L	0.0002 mg/L
2326	Pentachlorophenol	515.4	0.00004 mg/L	X	mg/L	0.001 mg/L
2383	PCBs	505	0.0001** mg/L	X	mg/L	0.0005 mg/L
2931	1,2-Dibromo-3-chloropropane	504.1	0.00002 mg/L	X	mg/L	0.0002 mg/L
2946	1,2-Dibromoethane	504.1	0.00001 mg/L	X	mg/L	0.00005 mg/L
2959	Chlordane (tech)	505	0.0002 mg/L	X	mg/L	0.002 mg/L

*Note: If result exceeds allowable limit, the laboratory must fax analyticalresults to the State within 48 hours.

**Note: R.R.L. (mg/L) for PCB screening are as follows: Aroclor 1016 - 0.00008, Aroclor 1221 - 0.02, Aroclor 1232 - 0.0005, Aroclor 1242 - 0.0003, Aroclor 1248 & 1254 - 0.0001, Aroclor 1260 - 0.0002

	DATE:	TIME:
ANALYSES BEGUN:	**03/22/2021**	**9:14 pm**
ANALYSES COMPLETED:	**03/26/2021**	**3:28 am**

Laboratory Log #: **CE04300-01**

Certified By: Bill Scott Bill Scott

COMMENTS:

PUBLIC / REDACTED

Environmental Conservation Laboratories, Inc.
102-A Woodwinds Industrial Court
Cary, NC 27511
Ph: (919) 467-3090 Fax: (919) 467-3515

www.encolabs.com

VOLATILE ORGANIC CHEMICAL ANALYSIS (VOCs)

WATER SYSTEM ID #: **N/A** County: **x**

Name of Water System: **Falls Preserve Phase 4**

Sample Type: ☐ Entry Point ☒ Special/Non-compliance

Location Where Collected: **Well: Test Well 2(VOC) - -**

Facility ID No: **D01**

Sample Point: **TW2**

Collected By: **James Blalock**

Mail Results to:

Kidd Well Company (KI011)
Attn: Wayne Kidd
13408 Old Creedmoor Road
Wake Forest, NC 27587

Collection Date	Collection Time
03/21/21	**09:10 pm**

Phone #: **(919) 848-8602**
Fax #:

LABORATORY ID #: 37724 ☐ SAMPLE UNSATISFACTORY ☐ RESAMPLE REQUIRED

CONTAM CODE	CONTAMINANT	METHOD CODE	REQUIRED REPORTING LIMIT (R.R.L.)	NOT DETECTED (i.e < R.R.L.) (X)	QUANTIFIED RESULTS*	ALLOWABLE LIMIT
2378	1,2,4-Trichlorobenzene	524.2	0.0005 mg/L	X	mg/L	0.07 mg/L
2380	cis-1,2-Dichloroethene	524.2	0.0005 mg/L	X	mg/L	0.07 mg/L
2955	Xylenes (total)	524.2	0.0005 mg/L	X	mg/L	10 mg/L
2964	Methylene chloride	524.2	0.0005 mg/L	X	mg/L	0.005 mg/L
2968	1,2-Dichlorobenzene	524.2	0.0005 mg/L	X	mg/L	0.6 mg/L
2969	1,4-Dichlorobenzene	524.2	0.0005 mg/L	X	mg/L	0.075 mg/L
2976	Vinyl chloride	524.2	0.0005 mg/L	X	mg/L	0.002 mg/L
2977	1,1-Dichloroethene	524.2	0.0005 mg/L	X	mg/L	0.007 mg/L
2979	trans-1,2-Dichloroethene	524.2	0.0005 mg/L	X	mg/L	0.1 mg/L
2980	1,2-Dichloroethane	524.2	0.0005 mg/L	X	mg/L	0.005 mg/L
2981	1,1,1-Trichloroethane	524.2	0.0005 mg/L	X	mg/L	0.2 mg/L
2982	Carbon tetrachloride	524.2	0.0005 mg/L	X	mg/L	0.005 mg/L
2983	1,2-Dichloropropane	524.2	0.0005 mg/L	X	mg/L	0.005 mg/L
2984	Trichloroethene	524.2	0.0005 mg/L	X	mg/L	0.005 mg/L
2985	1,1,2-Trichloroethane	524.2	0.0005 mg/L	X	mg/L	0.005 mg/L
2987	Tetrachloroethene	524.2	0.0005 mg/L	X	mg/L	0.005 mg/L
2989	Chlorobenzene	524.2	0.0005 mg/L	X	mg/L	0.1 mg/L
2990	Benzene	524.2	0.0005 mg/L	X	mg/L	0.005 mg/L
2991	Toluene	524.2	0.0005 mg/L		**0.0085 mg/L**	1 mg/L
2992	Ethylbenzene	524.2	0.0005 mg/L	X	mg/L	0.7 mg/L
2996	Styrene	524.2	0.0005 mg/L	X	mg/L	0.1 mg/L

*Note: If result exceeds allowable limit, the laboratory must fax analyticalresults to the State within 48 hours.

	DATE:	TIME:
ANALYSES BEGUN:	**03/23/2021**	**9:30 am**
ANALYSES COMPLETED:	**03/23/2021**	**3:31 pm**

Laboratory Log #: **CE04301-01** Certified By: Bill Scott Bill Scott

COMMENTS:

Environmental Conservation Laboratories, Inc.
102-A Woodwinds Industrial Court
Cary, NC 27511
Ph: (919) 467-3090 Fax: (919) 467-3515

ENCO

www.encolabs.com

BACTERIOLOGICAL ANALYSIS

Note: All applicable information must be supplied for compliance credit.

WATER SYSTEM ID #: **N/A** County: **x**

Name of Water System: **Falls Preserve Phase 4** System Type: Water Source:

[X] Distribution System - Total Coliform Rule (TCR)

Sample Type: [ ] Routine (RT) [ ] Repeat (RP) [X] Special/Non-compliance (SP)

OR

Facility ID: **D01** Location Code: **TW2** Location Where Collected: **Test Well 2(Bact)**

Sample Point: [ ] Routine Original (RTOR) [ ] Repeat-Original Tap (RPOR) [ ] Repeat-Upstream (RPUP) [ ] Repeat-Downstream (RPDN)

[ ] Source Water - Ground Water Rule (GWR)

Sample Type: [ ] Triggered (RT) [ ] Additional/Confirmation (CO) [ ] Assessment (RT) [ ] Triggered/Distribution Repeat (RT) *

* for systems with a population <= 1000

Facility ID: Sample Point:

Collected - BY: **James Blalock** DATE: **03/21/21** TIME: **08:55 pm**

Mail Results to (water system representative):

Kidd Well Company (KI011)
Attn: Wayne Kidd
13408 Old Creedmoor Road
Wake Forest, NC 27587

Phone #: (919) 848-8602

Fax #:

Responsible persons email:

kiddwell@bellsouth.net

Complete for *Repeat, Triggered, or Additional/Confirmation* Samples:

Previous Positive Laboratory ID Number:
Previous Positive Laboratory Log Number:
Previous Positive Location Code:
Previous Positive Collection Date:

Disinfectant Used: -

Total Chlorine Residual (chloramines): - mg/L

Free Chlorine Residual (chlorine): - mg/L

LABORATORY ID #: 37724 [ ] Repeat Samples Required from Client [ ] Resample Required from Client

CONTAM CODE	CONTAMINANT	METHOD CODE	RULE	RESULTS		
				PRESENT [1,2]	ABSENT	INVALID CODE
3100	Coliform, Total	COLISURE	TCR/GWR		X	
3014	Escherichia coli	COLISURE	TCR/GWR		X	
3002	Enterococci		GWR			
3028	Coliphage		GWR			
3013	Coliform, Fecal		TCR			
3001	Heterotrophic Plate Count					

INVALID CODES:

1	Confluent Growth / No Coliform Growth Found
2	TNTC / No Coliform Growth Found
3	Turbid Culture / No Coliform Growth Found
4	Over 30 Hours Old
5	Improper Sample or Analysis [4]

[1] If fecal, *E. coli*, enterococci or coliphage is present, lab must fax results to the State on day test is completed. If total coliform [2] bacteria is present, lab must fax results to the State within **24** hours. If HPC is absent, enter a "0" left of the "cfu/mL or MPN" units; if present, enter a whole number. Explain invalid [4] code below in comments.

Analyses Begun - DATE: **03/22/2021** TIME: **12:56 pm** (Date as: mm/dd/yy

Analyses Completed - DATE: **03/23/2021** TIME: **12:56 pm** (Time as: h:mm am/pm)

Laboratory Log #: **CE04302-01**

Certified By: Bill Scott

Bill Scott

COMMENTS:

PUBLIC / REDACTED

ENCO Laboratories

Accurate. Timely. Responsive. Innovative.

102-A Woodwinds Industrial Court
Cary NC, 27511
Phone: 919.467.3090 FAX: 919.467.3515

Monday, April 5, 2021
Kidd Well Company (KI011)
Attn: Wayne Kidd
13408 Old Creedmoor Road
Wake Forest, NC 27587

RE: Laboratory Results for
Project Number: [none], Project Name/Desc: New Well Scan- Falls Reserve Phase 4
ENCO Workorder(s): CE04303

Dear Wayne Kidd,

Enclosed is a copy of your laboratory report for test samples received by our laboratory on Monday, March 22, 2021.

Unless otherwise noted in an attached project narrative, all samples were received in acceptable condition and processed in accordance with the referenced methods/procedures. Results for these procedures apply only to the samples as submitted.

The analytical results contained in this report are in compliance with NELAC standards, except as noted in the project narrative if applicable. This report shall not be reproduced except in full, without the written approval of the Laboratory.

This report contains only those analyses performed by Environmental Conservation Laboratories. Unless otherwise noted, all analyses were performed at ENCO Cary. Data from outside organizations will be reported under separate cover.

If you have any questions or require further information, please do not hesitate to contact me.

Sincerely,

Bill Scott

Bill Scott
Project Manager
Enclosure(s)

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SAMPLE SUMMARY/LABORATORY CHRONICLE

Client ID: Dissolved Test Well 2(IOC)	Lab ID: CE04303-02	Sampled: 03/21/21 21:02	Received: 03/22/21 11:30

Parameter	Preparation	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 200.7	EPA 3005A	09/17/21	03/23/21 15:58	03/24/21 12:01

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SAMPLE DETECTION SUMMARY

No positive results detected.

TEST PUMP: **MAKE:** Goulds **MODEL:** 40GS50 **HP:** 5 **PH:** 1

PIPE SIZE: 2 **WIRE SIZE:** 6-3 **WIRE LENGTH:** 370ft **INTAKE DEPTH:** 210 **FT**

FLOW MEASURING DEVICE: Sensus W160 Turbine **CHLORINATION TYPE:** HTH **AMOUNT:** 2lbs

TEST STARTED: **DATE:** 3/21/2021 **TIME:** 9:00 AM **PUMPING WATER LEVEL:** 192 **FT**

AFTER 24 HOURS @ 12 **GPM**

TEST STOPPED: **DATE:** 3/22/2021 **TIME:** 9:00 AM **WELL YIELD:** 12 **GPM**

TIME	WATER LEVEL		PUMPING RATE		HEAD	TURBIDITY	COMMENTS
9:00 AM	82 PSI	21 FT	69	GPM	24	dingy	Throttled before starting
9:05 AM	52 PSI	89.9 FT	67	GPM			
9:10 AM	36 PSI	127 FT	64	GPM			
9:15 AM	30 PSI	141 FT	62	GPM			
9:20 AM	23 PSI	157 FT	61	GPM			
9:25 AM	20 PSI	164 FT	59	GPM			
9:30 AM	17 PSI	171 FT	58	GPM	18	clear	
9:35 AM	14 PSI	178 FT	58	GPM			
9:40 AM	12 PSI	182 FT	58	GPM			
9:45 AM	11 PSI	185 FT	58	GPM			
9:50 AM	7 PSI	194 FT	57	GPM			Throttled to 28gpm @ 80psi head
9:55 AM	7 PSI	194 FT	28	GPM	80	milky	
10:00 AM	7 PSI	194 FT	28	GPM			Field Samples
10:10 AM	7 PSI	194 FT	28	GPM			

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QUALITY CONTROL DATA

Metals (Dissolved) by EPA 200 Series Methods - Quality Control

Batch 1C22044 - EPA 3005A

Blank (1C22044-BLK1) Prepared: 03/23/2021 15:58 Analyzed: 03/24/2021 10:42

Analyte	Result	Flag	POL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Iron	0.0220	U	0.0500	mg/L							
Manganese	0.00150	U	0.0100	mg/L							

Blank (1C22044-BLK2) Prepared: 03/23/2021 15:58 Analyzed: 03/24/2021 10:45

Analyte	Result	Flag	POL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Iron	0.0220	U	0.0500	mg/L							
Manganese	0.00150	U	0.0100	mg/L							

LCS (1C22044-BS1) Prepared: 03/23/2021 15:58 Analyzed: 03/24/2021 10:52

Analyte	Result	Flag	POL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Iron	1.02		0.0500	mg/L	1.00		102	85-115			
Manganese	0.202		0.0100	mg/L	0.200		101	85-115			

Matrix Spike (1C22044-MS1) Prepared: 03/23/2021 15:58 Analyzed: 03/24/2021 10:57

Source: CD19986-01

Analyte	Result	Flag	POL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Iron	2.07		0.0500	mg/L	1.00	1.04	103	70-130			
Manganese	0.513		0.0100	mg/L	0.200	0.313	100	70-130			

Matrix Spike Dup (1C22044-MSD1) Prepared: 03/23/2021 15:58 Analyzed: 03/24/2021 11:00

Source: CD19986-01

Analyte	Result	Flag	POL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Iron	2.05		0.0500	mg/L	1.00	1.04	101	70-130	1	30	
Manganese	0.509		0.0100	mg/L	0.200	0.313	98	70-130	0.9	30	

Post Spike (1C22044-PS1) Prepared: 03/23/2021 15:58 Analyzed: 03/24/2021 11:09

Source: CD19986-01

Analyte	Result	Flag	POL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Iron	2.09		0.0500	mg/L	1.00	1.04	105	80-120			
Manganese	0.513		0.0100	mg/L	0.200	0.313	100	80-120			

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FLAGS/NOTES AND DEFINITIONS

B	The analyte was detected in the associated method blank.
D	The sample was analyzed at dilution.
J	The reported value is between the laboratory method detection limit (MDL) and the laboratory method reporting limit (MRL), adjusted for actual sample preparation data and moisture content, where applicable.
U	The analyte was analyzed for but not detected to the level shown, adjusted for actual sample preparation data and moisture content, where applicable.
E	The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered an estimate.
MRL	Method Reporting Limit. The MRL is roughly equivalent to the practical quantitation limit (PQL) and is based on the low point of the calibration curve, when applicable, sample preparation factor, dilution factor, and, in the case of soil samples, moisture content.
PQL	PQL: Practical Quantitation Limit. The PQL presented is the laboratory MRL.
N	The analysis indicates the presence of an analyte for which there is presumptive evidence (85% or greater confidence) to make a "tentative identification".
P	Greater than 25% concentration difference was observed between the primary and secondary GC column. The lower concentration is reported.
[CALC]	Calculated analyte - MDL/MRL reported to the highest reporting limit of the component analyses.
LG-01	Sample filtered in laboratory.

Environmental Conservation Labs, Inc.
102-A Woodwinds Industrial Ct, Cary, NC 27511
Tel: 919-467-3090 Fax: 919-467-3515

ENCO

Kidd Well Company (KI011)

Printed: 3/16/2021 10:00:03.

SAMPLE KIT SUMMARY

NEW WELL INORGANIC CHEMICAL ANALYSIS (IOCs)

Water System : Falls Preserve Phase 4 **County :** x
Water System ID : N/A

NEW WELL

Well ID : Test Well 2(IOC) **Facility ID No. :** D01
Sample Point: TW2
Collected By: JEB
Collection Date/Time: 3-21-21 / 902AM

Sample Type : ☐ Entry Point ☒ Special/Non-compliance

Analyses **Lab Number: CE04303-**

Acidity NCDW144	Alkalinity NCDW142	Antimony Total NCDW170
Arsenic Total NCDW170	Barium Total NCDW170	Beryllium Total NCDW170
Cadmium Total NCDW170	Calcium Total NCDW169	Chromium Total NCDW170
Color NCDW129	Copper Total NCDW170	Cyanide Total NCDW150
Fluoride NCDW120	Hardness NCDW169	Iron Total NCDW169
Lead Total NCDW170	Magnesium Total NCDW169	Manganese Total NCDW170
Mercury Total NCDW119	Nickel Total NCDW170	Nitrite NCDW163
Nitrite NCDW163	NOX NCDW163	NOX NCDW163
pH NCDW135	Selenium Total NCDW170	Silver Total NCDW170
Sodium Total NCDW169	Sulfate NCDW120	TDS NCDW139
Thallium Total NCDW170	Turbidity NCDW001	Zinc Total NCDW170

Containers
1 - 250mLP+AscAcid+NaOH
1 - 250mLP+HNO3
1 - 40mLV
1 - 40mLV+H2SO4
2 - 500mLP

TEMP 16 C°

Sampling Instructions:

Preparing to Sample
- Reference the provided Chain-of-Custody or Bottle Summary for a list of bottles provided.
- Unpack the bottles to prepare for sampling. If you have more than one sampling point, the bottles needed for each discrete sampling point are segregated into individual bags. Do not mix bottles between samples.
- If shipping back to the lab, plan to collect samples in the late afternoon just prior to the pick-up time for your overnight carrier. This will allow the laboratory to complete all tests within specified holding times. All samples should be submitted to the lab ASAP within 24 hours after collection.
- Check with the laboratory in advance if you plan to submit samples on a Saturday.

Filling the Sample Bottles
- If you are sampling from a faucet with an aerator, it must be removed prior to collection.
- Flush the coldwater sampling line for a minimum of 10 minutes. Slow the stream prior to sampling.
- Do NOT open the bottles until you are ready to fill them. Avoid debris/dust touching in the cap or bottle.
- Record the sampling date, time, site, and name of sampler on both the bottle labels and the enclosed Chain-of-Custody. Provide your PWSID # and State reporting requirements for compliance samples.
- Follow any required test-specific sampling instructions as follows:

Preservation
- Cyanide: Fill 250mL bottle with sample to within 1/2 inch of top; add entire contents of provided 1:1 NaOH vial

Comments:

RECEIVED MAR 2? 2021 1:5?

James Blalock / JSBlalock
Samples Collected By (Print and Sign) | Relinquish Date / Time

Received By (Lab) | Receipt Date / Time

Please review the above information related to your sample. This information will be used to generate your state compliance forms. In the event that corrections ... accordingly and we will update our system upon receipt.

Sample Preservation Verification

ENCO Cary

Work Order: CE04303 Project: New Well Scan- Falls Reserve Phase 4

Client: Kidd Well Company (KI011) Project #: [none]

Logged In: 22-Mar-21 12:03 Logged By: John C King

Preservation Check Performed By: CB Date/Time: 3.22.21 12.

CE04303-01

Cont	Type	Pres (pH) / Requirement	pH Checked / In Control	pH Adjusted	Date/Time Adjusted	Reagent Used/Comments
A	250mLP+AscAcid+NaOH	>12	Y / N / NA	Y / N / NA		
B	250mLP+HNO3	<2	Y / N / NA	Y / N / NA		
D	40mLV+H2SO4	<2	Y / N / NA	Y / N / NA		

	Reagent Name	ID		Reagent Name	ID		Reagent Name	ID
1			3			5		
2			4			6		

pH Strip ID: COF0555

C:\ELMNT\Print\wko_PreservationCheck.rpt

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102-A Woodwinds Industrial Court
Cary, NC 27511
Ph: (919) 467-3090 Fax: (919) 467-3515

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NEW WELL INORGANIC CHEMICAL ANALYSIS

WATER SYSTEM ID #: **N/A** County: **x**

Name of Water System: **Falls Preserve Phase 4**

Sample Type: ☐ Entry Point ☐ Special/Non-compliance

Location Where Collected: **Well: Test Well 2(IOC) - -**

Facility ID No.: **D01**

Sample Point: **TW2**

Collected By: **James Blalock**

Collection Date	Collection Time
03/21/21	**09:02 pm**

Mail Results to:
Kidd Well Company (KI011)
Attn: Wayne Kidd
13408 Old Creedmoor Road
Wake Forest, NC 27587

Phone #: **(919) 848-8602**
Fax #:

LABORATORY ID #: 37724 ☐ SAMPLE UNSATISFACTORY ☐ RESAMPLE REQUIRED

CONTAM CODE	CONTAMINANT	METHOD CODE	REQUIRED REPORTING LIMIT (R.R.L.)	NOT DETECTED (i.e < R.R.L.) (X)	QUANTIFIED RESULTS*	ALLOWABLE LIMIT
0100	Turbidity	180.1	0.1 ntu		**0.12 ntu**	N/A
1005	Arsenic	200.8	0.005 mg/L	X	mg/L	0.01 mg/L
1010	Barium	200.8	0.4 mg/L	X	mg/L	2 mg/L
1015	Cadmium	200.8	0.001 mg/L	X	mg/L	0.005 mg/L
1016	Calcium	200.7	1 mg/L		**15.3 mg/L**	N/A
1017	Chloride	300.0	5 mg/L	X	mg/L	250 mg/L
1020	Chromium	200.8	0.02 mg/L	X	mg/L	0.1 mg/L
1022	Copper	200.8	0.05 mg/L	X	mg/L	1.3 mg/L
1024	Cyanide (total)	335.4	0.05 mg/L	X	mg/L	0.2 mg/L
1025	Fluoride	300.0	0.1 mg/L	X	mg/L	4 mg/L
1028	Iron	200.7	0.06 mg/L	X	mg/L	0.3 mg/L
1030	Lead	200.8	0.003 mg/L	X	mg/L	0.015 mg/L
1031	Magnesium	200.7	1 mg/L		**6.52 mg/L**	N/A
1032	Manganese	200.8	0.01 mg/L	X	mg/L	0.05 mg/L
1035	Mercury	245.1	0.0004 mg/L	X	mg/L	0.002 mg/L
1036	Nickel	200.8	0.1 mg/L	X	mg/L	N/A
1040	Nitrate as N	4500NO3-F	1 mg/L	X	mg/L	10 mg/L
1041	Nitrite as N	4500NO3-F	0.1 mg/L	X	mg/L	1 mg/L
1045	Selenium	200.8	0.01 mg/L	X	mg/L	0.05 mg/L
1050	Silver	200.7	0.05 mg/L	X	mg/L	0.1 mg/L
1052	Sodium	200.7	1 mg/L		**10.4 mg/L**	N/A
1055	Sulfate as SO4	300.0	5 mg/L	X	mg/L	250 mg/L
1068	Acidity (as CaCO3)	2310 B	1 mg/L	X	mg/L	N/A
1074	Antimony	200.8	0.003 mg/L	X	mg/L	0.006 mg/L
1075	Beryllium	200.8	0.002 mg/L	X	mg/L	0.004 mg/L
1085	Thallium	200.8	0.001 mg/L	X	mg/L	0.002 mg/L
1095	Zinc	200.8	1 mg/L	X	mg/L	5 mg/L
1905	Color	2120B	5 units	X	units	15 units
1915	Hardness	2340B	1 mg/L		**65 mg/L**	N/A
1925	pH	4500H-B	N/A	N/A	**7.5 units**	6.5-8.5 units

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NEW WELL INORGANIC CHEMICAL ANALYSIS

(continued)

WATER SYSTEM ID #: **N/A**

Name of Water System: **Falls Preserve Phase 4**

Facility ID No.: **D01**

Sample Point: **TW2**

Collection Date	Collection Time
03/21/21	**09:02 pm**

LABORATORY ID #: 37724

CONTAM CODE	CONTAMINANT	METHOD CODE	REQUIRED REPORTING LIMIT (R.R.L.)	NOT DETECTED (i.e < R.R.L.) (X)	QUANTIFIED RESULTS	ALLOWABLE LIMIT*
1927	Total Alkalinity as CaCO3	2320B	1 mg/L		**77 mg/L**	N/A
1930	Total Dissolved Solids	2540C	10 mg/L		**36 mg/L**	500 mg/L

*Note: Concentrations for Lead and Copper are action levels not MCLs.

	DATE:	TIME:
ANALYSES BEGUN:	**03/22/2021**	**1:58 pm**
ANALYSES COMPLETED:	**04/02/2021**	**1:00 pm**

Laboratory Log #: **CE04303-01**

Certified By: Bill Scott Bill Scott

COMMENTS:

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102-A Woodwinds Industrial Court
Cary, NC 27511
Ph: (919) 467-3090 Fax: (919) 467-3515

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CORROSIVITY ANALYSIS

WATER SYSTEM ID #: **N/A** County: **x**

Name of Water System: **Falls Preserve Phase 4**

Sample Type: ☐ Entry Point ☐ Special/Non-compliance

Location Where Collected: **Well: Test Well 2(IOC) - -**

Location Code: **TW2**

Collected By: **James Blalock**

Collection Date	Collection Time
03/21/21	**09:02 pm**

Mail Results to:

Kidd Well Company (KI011)
Attn: Wayne Kidd
13408 Old Creedmoor Road
Wake Forest, NC 27587

Phone #: **(919) 848-8602**
Fax #:

LABORATORY ID #: 37724 ☐ SAMPLE UNSATISFACTORY ☐ RESAMPLE REQUIRED

CONTAM CODE	CONTAMINANT	METHOD CODE	REQUIRED REPORTING LIMIT (R.R.L.)	NOT DETECTED (i.e < R.R.L.) (X)	QUANTIFIED RESULTS*	ALLOWABLE LIMIT
1910	Langelier Index		N/A	N/A	**-0.78**	N/A
1919	Calcium Hardness	2340B	N/A	N/A	**38 mg/L**	N/A
1925	pH	4500H-B	N/A	N/A	**7.5 units**	6.5-8.5 units
1927	Total Alkalinity as CaCO3	2320B	1 mg/L		**77 mg/L**	N/A
1930	Total Dissolved Solids	2540C	10 mg/L		**36 mg/L**	500 mg/L
1996	Water Temperature	2550	N/A	N/A	**16 deg C**	N/A

*Note: Concentrations for Lead and Copper are action levels not MCLs.

	DATE:	TIME:
ANALYSES BEGUN:	**03/21/2021**	**9:02 pm**
ANALYSES COMPLETED:	**03/31/2021**	**10:27 am**

Laboratory Log #: **CE04303-01** Certified By: Bill Scott Bill Scott

COMMENTS:

Appendix K – Old North State Water Company Utility Specifications

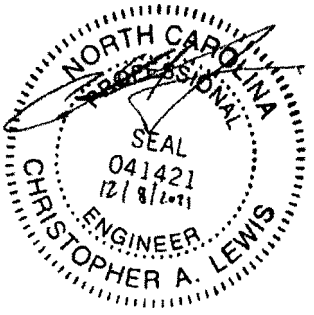
W1300,
Sub 83

WATER SPECIFICATIONS

OLD NORTH STATE WATER COMPANY LLC

1620 CHALK ROAD
WAKE FOREST, NC 27587
(919) 971-1926

Revised December 4, 2019



GROUNDWATER WELL

GW.1 General

The well shall be constructed in accordance with section 15A NCAC18C.0402, 15A NCAC 2C, all other State, County regulations, AWWA standards and Utility specifications.

The well drilling contractor shall obtain any and all required permits needed to drill a well. Penalties assessed for not obtaining the required permits shall be the sole responsibility of the contractor and/or developer. Utility shall not be liable if the required permits are not obtained.

A completed copy of the State and/or County required well drilling record/log shall be copied to Utility showing the name of the Subdivision, well number, coordinates of well, well drilling company, date drilled, depth of well, depth of casing, drive shoe, depth of the grouting and placement method used, static water level, depth and yield at each water zone (including those zones cut off by the installation of the casing), total yield, etc. Well records without the above data will not be accepted by Utility.

GW.2 Well Site

Well site shall be approved by NCDEQ and a Utility Representative prior to drilling.

Developer shall provide Utility with an appropriate recorded deed of easement and/or general warranty deed which shall include well protective non-contamination provisions to ensure the required 100' radius is pollution-free. A sealed survey of the well lot shall be provided prior to submittal for NCDEQ plan approval. The survey shall include topographic information, the coordinates of the well, easements, 100' radius, other distances to property lines, and county pin numbers.
Said deed must be in the Utility's name and shall be recorded at the county's register of deed office prior to submittal for NCDEQ plan approval and Utility accepting the well. A 20' Utility and access easement shall also be granted to Utility.

GW.3 Well Construction

An on-site meeting with a Utility Representative shall be held prior to drilling. Utility must be notified one (1) week in advance prior to beginning drilling, setting the Casing, and beginning grouting.

Well shall be drilled at the specified well stake put in the ground by the surveyor, as approved by NCDEQ. If the well is not drilled in accordance with the NCDEQ predrill letter, the Utility shall not accept the well.

All drilling fluids and additives used shall comply with recognized industry standards and practices and be applied and used as prescribed by the manufacturer. Toxic and/or unapproved substances shall not be added to drilling fluid.

Wells shall be drilled straight and plumb the entire depth of the well. Crooked wells will not be accepted. The well driller shall attempt to drill to a depth at least thirty (30) feet beyond the last water-bearing fracture. The well shall be thoroughly cleaned of all drill cuttings prior to the removal of the drilling equipment.

At the completion of drilling, the well drilling contractor shall chlorinate to a tested level of 100 ppm for 24-hours in accordance with AWWA rule C654 and 15A NCAC18C.1002.

GW.4 Well Casing

Casing length- Where firm bedrock is encountered shallower than 55 feet, a minimum casing length of 55 feet below ground level is preferred. Unless otherwise specified by the on-site Utility Representative, the well must be drilled a minimum of 5' into competent bedrock where the drive shoe and casing must be secured.

Method of joining - Casing lengths shall be joined in alignment and water tight by a method appropriate to the material used so that the resulting joint shall have the same structural integrity and protection as the casing itself. Threaded and coupled joints shall be API or equivalent and made up tight. Welding is acceptable.

Drive shoe - A drive shoe must be installed on the end of casing. The drive shoe shall be made of forged, high carbon, tempered seamless steel and shall have a beveled, hardened cutting edge. This shoe shall be firmly driven into the rock at least 5' into competent bedrock to make a seal with 10' being preferred.

Sanitary protection of the well - The well site shall be protected at all times during the drilling. The casing shall be sealed with a suitable flanged, threaded, welded cap, or compression seal upon completion. The top of the outside casing shall extend at least 12" above the grade level.

There shall be no openings in the casing wall below its top except for water level measurement access ports, vents, or grout nipples. Such openings shall be sealed water tight prior to leaving the well site.

An identification plate shall be attached to each public well immediately after drilling is completed. The well drilling contractor shall furnish a completed well identification plate as outlined below prior to leaving the job site. The well will not be accepted without this tag.

The identification plate shall be constructed of a durable, weatherproof, rustproof metal or equivalent material and stamped with permanent markings to show:

- Drilling contractor and registration number.
- Date well completed.

- Total depth of well.
- Casing: Depth (feet), Inside Diameter (inches).
- Yield in gallons per minute (gpm),
- Static water level and date measured.

GW.5 Well Grouting

Water or other drilling fluid shall be circulated in the annular space sufficiently to clear all obstructions including rock chips before grouting. The entire length of the well casing shall be grouted completely in one pour, no construction joints are allowed.

Tremie grouting is the preferred method, and the Utility may specify grouting to the end of the casing within the annular space using two tremie pipes to ensure good distribution around the casing.

Grouting will be started from the bottom and raised slowly, the pipe shall be kept full continuously from start to finish. The grout must be properly cured for at least 24 hours before construction may be resumed.

Special care must be taken to set casing and grout into Piedmont crystalline rock and not just too overlying isolated boulders or iron hardpan. Additional length of grout may be necessary in some cases to support the weight of the casing.

Alternative grouting techniques must be preapproved by the Utility and Engineer.

GW.6 Well Development

All water supply wells shall be properly developed by the well driller. Development shall include removal of formation materials, mud, drilling fluids and additives such that the water contains no more than:

- Five (5) milliliters per liter of settleable solids
- Ten (10) NTUs of turbidity as suspended solids.

GW.7 Sanitary Seal

The well site shall be protected at all times during the drilling. The casing shall be sealed with a suitable flanged, threaded, or welded cap upon completion. The top of the outside casing shall extend at least 12" above the grade level.

There shall be no openings in the casing wall below its top except for water level measurement access ports, vents, or grout nipples. Such openings shall be sealed water tight prior to leaving the well site.

GW.8 Storage

Unless approved by the utility a minimum of 5,000 gallons of hydro-pneumatic storage will be required. Storage calculations need to consider the following items: lot size, lot count, water main size, air:water ratio, and water quality. Flushing volume will require a velocity of 5 ft/sec, and 20 minutes of flow.

GW.9 Well Building

The well building shall be 10'-4" x 9'-4" wood framed with R-15 BATT insulation and double doors. Roof shall be golden brown asphalt shingled with a pitch of 4/12. The floor shall be a 6"-thick, 3000 psi concrete slab with 12"-thick footings and shall slope towards a center floor drain. See Standard Details for additional information.

GW.10 Pump

The well pump shall be 15SQ15-290 Grundfos submersible with 2.5 HP Motor capable of pumping 12 GPM at a head of 395.6 feet.

GW.11 Chemical Feed Equipment

A chemical feeder shall be installed in the well building according to Old North State specifications. A "PULSAtron Series A Plus" feeder, model LB03 shall be installed per manufacturers specifications.

Based on 16 connections at 400 GPD, the required demand is 6,400 GPD. The chlorination dosage rate for continuous disinfection shall be between 1.0 mg/L and 1.2 mg/L.

Based on the calculations below, in order to achieve a 1.0 mg/L dosage, the chlorinator should be set to 0.077 lbs/day

(x mg/L Chlorine) (MGD of Flow) (8.34 lbs/gallon) = x lbs/day of Chlorine

(1.0 mg/L Chlorine) (MGD of Flow) (8.34 lbs/gallon) = 0.0534 lbs/day of Chlorine

The chlorine shall be in liquid form.

WATER DISTRIBUTION SYSTEM

W.1 Water Distribution Pipe

PVC pipe shall be PVC 1120, in accordance with AWWA C-900. All 2" water main pipe shall be PVC 1120 in accordance with ASTM D- 2241. The pipe shall be minimum Pressure Class 200 with a SDR of 14 or less for C-900 pipe and a SDR of 21 or less for ASTM 2241 pipe. All PVC Water Pipe must bear National Sanitation Foundation logo. PVC pipe will require saddles for service taps and the installation of a tracer wire as shown in the standard details herein. All installation of PVC pipe shall be in accordance with AWWA C605.

Ductile Iron Pipe shall be designed as per ANSI A21.50 for a working pressure of 200 psi, laying condition B. Pipe shall be minimum Class SO, and manufactured as per AWWA C141 in 18 ft. lengths. Pipe joints shall be of the push-on type as per AWWA C151, Paragraph 51-2.6. Pipe lining shall be cement mortar with a seal coat of bituminous material, all in accordance with AWWA C104. Dip shall only be used where noted on the plans. All installation of DIP pipe shall be in accordance with AWWA C600.

W.2 Valves

Gate valves greater than 2 inches shall meet all requirements of AWWA C500 (latest revision), for a working pressure of 200 psi. All shall be mechanical joint (except for use on blow off assemblies or backflow preventers) with iron body, bronze mounting double disc parallel seat type with a non-rising stem with a double "0" ring seal, 2" square operating nut, and open-left as furnished by Mueller, American Valve and Hydrant or Clow.

Valves shall be properly located, operable and at the correct elevation. The valve box shall be centered over the wrench nut and seated on concrete block without touching the valve assembly.

All valve boxes shall be cast iron of the screw or telescopic type, with a 5 inch opening with "water" cast in the cover. Refer to standard detail WD-3.

W.3 Blow-Off Assemblies

The assembly shall be constructed as shown on Standard Drawing W-4 for Blow-off Assemblies. The gate valves shall meet all requirements of AWWA CSOO and shall have a non-rising stem, "O"-ring seals and screwed ends, 2" operating nut, and open-left as furnished by Mueller or American Valve and Hydrant.

All Blow Off Assemblies shall have a valve box installed at the valve and discharge. Boxes shall be cast iron of the screw or telescopic type, with a 5 inch opening with "water" cast in the cover. Refer to standard detail WD-9,

W.4 Water Pipe Fittings

Pipe fittings shall be compact or ductile iron mechanical joint fittings designed and manufactured as per AWWA C153 and rated at a working pressure of 350 psi. Fitting shall be lined with cement mortar with a seal coat of bituminous materials, all in accordance with AWWA C104.

Reaction Blocking for all fittings of components subject to hydrostatic thrust shall be securely anchored by the use of concrete blocks poured in place. Refer to standard drawings for details. Wrap fittings in 6 mil plastic before pouring blocking concrete. Material for reaction blocking shall be 3000 psi concrete.

W.5 Services

Refer to standard drawings W-1 and W-3 for all details regarding services. **Piedmont and Coastal Areas**: Use 3/4" polyethylene "black roll pipe" only from corporation stop to meter box. **Mountain Areas**: Use 3/4" type "K" copper.

W.6 Installation

The trench shall be excavated to the proper depth to permit installation of the pipe along the lines and grades shown on the construction drawings. Pipe shall have a minimum cover of 36" at the top of the pipe and minimum trench width shall be at least 18" greater than the outside diameter of the pipe. Where excavation is in rock, the rock shall be removed to a depth of at least 6" below grade and shall be backfilled with suitable material. Wet trenches shall be stabilized with #78M stone or with a base layer of #57 stone. Shoring or bracing of pits, trenches and other excavations shall be in accordance with the requirements of the North Carolina Department of Transportation and the Federal Occupational Safety and Health Act.

All pipe shall be laid to its manufacturer's recommendations. The subgrade at the bottom of the trench shall be shaped to secure uniform support throughout the length of the pipe. A space shall be excavated under the bell of each pipe to provide space to relieve bearing pressure on the bell and to provide room to adequately made the joint.

Open ends of pipe shall be plugged with a standard plug or cap at all times when pipe laying is not in progress. Trench water shall not be permitted to enter pipe.

Backfill material shall be free from stones greater than 4 inches in diameter, construction materials debris, frozen material, organic matter, or unstable material. Compact to a density of no less than 95 percent maximum dry density as measured

by AASHO Method T99. Backfill material shall be placed in lifts of 8 inches or less of the uncompacted soil. All trenches shall be properly backfilled at the end of each working day.

Sanitary sewers shall be laid at least 10 feet laterally from existing or proposed water mains unless the elevation of the top of the sewer is at least 18 inches below the bottom of the water main with a horizontal separation of at least 3 feet.

Where a sanitary, or storm sewer and a water main cross, and the vertical separation is less than 18 inches or the water line passes under the sewer, both the sewer and the water main shall be ductile iron pipe for a distance of 10 feet on each side of the point of crossing. The water line pipe section shall be centered at the point of crossing.

W. 7 Hydrostatic Tests

No valve in the existing water system shall be operated without giving a minimum of 24 hours' notice to Old North State Water Company LLC. Water mains shall be subjected to pressure and leakage tests in accordance with A.W.W.A. Standard C600 (latest revision). Hydrostatic tests for a section of line to be tested shall be slowly filled with water at a rate which will allow complete evacuation of air from the line.

The line shall be tested to a pressure of 200 psi as measured at the lowest elevation of the line for a minimum duration of 2 hours. The pressure gauge used in the hydrostatic test shall be calibrated in increments of 10 psi or less. At the end of the test period, the leakage shall be measured with an accurate water meter.

Pipe Size (Inches)	Allowable Leakage (Gal./Hr./1000 ft. of pipe)
2	0.19
3	0.29
4	0.38
6	0.57
8	0.76
12	1.15
16	1.53
20	1.91
24	2.29

All visible leaks are to be repaired regardless of the amount of leakage.

W.8 Chlorination

A. Upon completion of testing, all water lines shall be disinfected to meet the requirements of the State and the most recent revision of AWWA Standard 651. Use the Continuous Feed method of chlorination or obtain Engineer approval of a different, approved method.

B. Potable water may be supplied from a temporary, backflow-protected connection to the existing distribution system or other supply source approved by ONSWC. The flow shall be at a constant, measured rate into the newly installed water main.

C. Before the line is chlorinated, it shall be filled with potable water to eliminate air pockets and flushed to remove particulates. The flushing velocity in the line shall not be less than 3.0 ft/sec unless conditions do not permit the required flow to be discharge to waste. Where such flow rates are not possible, flushing at the maximum expected flow rate for the line for 2-3 volumes may be acceptable, or pigging may be required.

D. Before being placed in service, all new lines, repaired portions of, or extensions to existing lines, shall be filled with water that received a dose of chlorine fed at a constant rate such that the water will have not less than 50 mg/L free chlorine. Chlorine application will continue until the entire main is filled with chlorinated water. The chlorinated water shall be retained in the main for at least 24 hours during which time valves and hydrants in the treated section shall be operated to ensure disinfection of the appurtenances. At the end of the 24-hour period, the treated water in all portions of the main shall have a residual of not less than 10 mg/L of free chlorine.

E. Heavily chlorinated water shall be flushed from the line until chlorine measurements show that the concentration in the water leaving the main is no higher than that generally prevailing in the distribution system.

F. If there is any possibility that the chlorinated discharge will cause damage to the environment, a neutralizing chemical shall be applied to the water to be wasted to thoroughly neutralize the residual chlorine. Where necessary, regulatory agencies should be contacted to determine special provisions for the disposal of heavily chlorinated water.

W.9 Bacteriological Sampling

Samples for bacteriological analysis shall be collected by the Contractor 24 hours after flushing is completed. If test results are unsatisfactory, the Contractor shall immediately re-chlorinate lines and proceed with such measures as are necessary to secure properly disinfected lines. All bacteriological analysis must be performed by a laboratory certified by the State of North Carolina.

W.10 Testing and Inspection

NOTIFY OLD NORTH STATE WATER COMPANY LLC BEFORE BEGINNING CONSTRUCTION, and prior to testing any completed section. A 24-hour notice may be required.

All materials used on the project must have a preliminary inspection by Old North State Water Company LLC and Engineer before materials are used for construction purposes. Rejection of materials not meeting specifications will be ordered by Old North State Water Company LLC or Engineer, and such materials shall be immediately removed from the job site.

The Contractor shall furnish all materials, labor, and equipment to necessary to perform all testing to the satisfaction of Old North State Water Company LLC and the Engineer. Fees for water sample testing shall be paid by the Contractor. Water for testing purposes will be provided by Old North State Water Company LLC upon notifying Old North State Water Company LLC of the testing water requirement.

Appendix L – Hydro-pneumatic Tank Calculations

FLMENGINEERING

W1300, Sub 83

The Reserve at Falls Lake Phase 4 - Tank Calculation

Total Connections =	16
Peak Demand =	50 GPM
Pumping Capacity =	12 GPM

Required Effective Volume = *(Peak Demand - Pumping Capacity) x 20 min.*

(50 GPM - 12 GPM) x 20 min. = **760 Gallons**

Total Tank Volume = Required Effective Volume / 0.25

760 gallons / 0.25 = **3,040 Gallons Required**

The proposed 5,000 gallon tank is sufficient

State of North Carolina
Department of Environmental Quality

Applicant Certification Form

In accordance with 15A NCAC 18C .0303 (c), a signed applicant certification must be submitted to the Department, stating that the Operation and Maintenance (O&M) Plan and the Emergency Management Plan requirements have been satisfied and that the system will have a certified operator as required by Section .1300. No construction, alteration, or expansion of a community or non-transient, non-community public water system shall be placed into final service or made available for human consumption until the applicant has submitted the certification and has received Final Approval from the Department.

Certification must be provided by the following individual or their duly authorized representative:

1. For a corporation, limited liability company, home owner association or non-profit organization: *a president, vice president, secretary, or treasurer.*
2. For a partnership or sole proprietorship: *by a general partner or the proprietor.*
3. For a municipality, State, Federal or other agency: *by either a principal executive officer or ranking elected official.*

By the signature below I certify, under penalty of law:

1. The following actions have been completed for the construction, alteration, or expansion of the water system, as defined in the project documents:
   - I, or personnel under my direct supervision, have completed an O&M Plan and an Emergency Management Plan in accordance with 15A NCAC 18C .0307(d) and (e). Based on my evaluation of the plans, or my inquiry of the person or persons directly responsible for preparing the O&M Plan and Emergency Management Plan, the information contained in the plans is, to the best of my knowledge and belief, true, accurate, and complete.
2. The following actions will be completed before the construction, alteration, or expansion of the water system, as defined in the project documents, is placed into final service or made available for human consumption:
   - In accordance with 15A NCAC 18C .0307(d), the O&M Plan will be made accessible to the operator on duty at all times and available to the Department upon request.
   - In accordance with 15A NCAC 18C .0307(e), the Emergency Management Plan will be made accessible to the system operator on duty at all times and available to the Department upon request.
   - In accordance with 15A NCAC 18C .0303(c), the system will have a certified operator as required by 15A NCAC 18 C. 1300.

Signature: _____ Name(Print): Erica Cochran

Title: Development & Construction Mgr Date: 8/17/2023

Project Name: The Reserve at Falls Lake S/D Ph 4 System Name: Reserve at Falls Lake (Phase 4)

Serial No: **21-01094** Water Sys. ID: **NC4092213**

Certifications can be sent by mail, fax (919-715-4374), or attachment to an e-mail message to PWSSection.PlanReview@ncdenr.gov

W1300, Sub 83

ROY COOPER
Governor
ELIZABETH S. BISER
Secretary
RICHARD E. ROGERS, JR.
Director

NORTH CAROLINA
Environmental Quality

October 16, 2023

OLD NORTH STATE WATER CO
ATTN: JOHN MCDONALD
PO BOX 10127
BIRMINGHAM, AL 35202

Re: **Final Approval**
Final Approval Date: October 16, 2023
THE RESERVE AT FALLS LAKE SUBDIVISION - PH 4
Serial No.: 21-01094
Water System Name: RESERVE AT FALLS LAKE (PHASE 4)
Water System No.: NC4092213
Wake County

Dear Sir/Madam:

The Department received an Engineer's Certification statement and an Applicant's Certification concerning the above referenced project. The Engineer's Certification verifies that the construction of the referenced project has been completed in accordance with the engineering plans and specifications approved under Department Serial Number 21-01094. The Applicant's Certification verifies that an Operation and Maintenance Plan and Emergency Management Plan have been completed and are accessible to the operator at all times and available to the department upon request and that the system will have a certified operator as required by 15A NCAC 18C .1300.

The Department has determined that the requirements specified in 15A NCAC 18C .0303(a) and (c) have been met, and therefore, issues this **Final Approval** in accordance with Rule .0309(a).

Please contact us at (919) 707-9100 if you have any questions or need additional information.

Sincerely,

RBSadosky

Rebecca Sadosky, Ph.D., Chief
Public Water Supply Section
Division of Water Resources, NCDEQ

cc: TRESHA PRICE, Regional Engineer
Wake County Health Department
FLM ENGINEERING, INC

CHRISTOPHER A LEWIS, PE
FLM ENGINEERING, INC
PO BOX 91727
RALEIGH, NC 27675

AGREEMENT

STATE OF NORTH CAROLINA
COUNTY OF FRANKLIN

This agreement for the installation, conveyance, and operation of the Falls Reserve Phase 4 Subdivision Water Utility System (hereinafter referred to as the "Agreement") is made and entered into on this the 9th day of June 2021, by and between FALLS LAKE DEVELOPER'S, LLC hereinafter referred to as the "Developer"), and OLD NORTH STATE WATER COMPANY, LLC (hereinafter referred to as the "Utility or ONSWC") (individually referred to as a "Party" and collectively referred to as the "Parties").

W I T N E S S E T H:

THAT WHEREAS, the Developer is the owner of certain real property to be known as Falls Reserve Phase 4 Subdivision (hereinafter referred to as the "Subdivision"); and

WHEREAS, the Developer plans to design, construct, and install in the Subdivision a community water utility system to provide water utility service to all proposed 16 lots in the Subdivision (hereinafter referred to as "Water Utility System"); and

WHEREAS, the Utility is engaged in the business of owning and operating water utility systems in the State of North Carolina; and

WHEREAS, the Developer has requested that the Utility purchase, own, and operate the Water Utility System; and

WHEREAS, the Utility is agreeable to purchasing, owning, and operating the completed Water Utility System; and

WHEREAS, the Parties have agreed that upon the construction and installation of the Water Utility System, the Developer shall transfer and assign the Water Utility System to the Utility in accordance with the terms and conditions of this Agreement; and

WHEREAS, after the Utility acquires the Water Utility System from the Developer, the Utility shall operate the Water Utility System in accordance with the terms and conditions of this Agreement.

NOW, THEREFORE, for and in consideration of the promises and of the rights, powers and duties hereinafter set forth to be performed by each Party, the Developer and the Utility mutually do agree as follows:

1. Definitions

1.1. "*Agreement*" shall mean this Agreement for the Installation, Conveyance, and Operation of the Water Utility System serving the Subdivision, including any and all exhibits and schedules, if any, as amended from time to time.

1.2. "*Certificate Extension*" shall mean the Certificate of Public Convenience and Necessity for water utility service at the Subdivision to be issued by the Commission (defined below).

1.3. "*CIAC*" shall mean a Contribution in Aid of Construction as defined in 26 CFR § 1.118-2, including: (i) mains and appurtenances, plants, equipment, and other property constructed by Developer and contributed to Utility pursuant to this Agreement; (ii) Deeded Property contributed to Utility pursuant to this Agreement; (iii) services performed by Developer (including its subcontractors) for constructing or transferring property contributed to Utility; and (iv) cash contributions (water capacity payments, wastewater capacity payments, and/or capital recovery charges) owed or paid to Utility for expansion of the plant or equipment.

1.4. "*CIAC Gross Up Payment*" shall mean the income tax collected by Utility on CIAC received from Developer, using the full gross-up method, relating to the Water Utility System.

1.3. "*Closing*" shall mean the transfer of the Water Utility System from the Developer to the Utility.

1.4. "*Closing Date*" shall mean the date of the Closing.

1.5. "*Commission*" shall mean the North Carolina Utilities Commission.

"*Deeded Property*" shall mean the real property that will be part of the Water Utility System that is owned by the Developer and will be used in connection with the Water Utility System, including, but not limited to, well lots, storage tank site, treatment facility sites, treatment disposal sites (if any), access and utility easements, and other real property that is needed for the construction, operation, maintenance, repair, and replacement of the Water Utility System.

1.6. "*DWR*" shall mean the North Carolina Department of Environment and Natural Resources, Division of Water Resources.

1.7. "*Developer*" shall mean Falls Lake Developer's, LLC, whose mailing address is: 7101 Creedmoor Rd., Ste 122, Raleigh, NC 27613.

1.8. "*Permit*" shall mean the Water Utility System Permit and/or the Authorization to Construct to be issued by DWR.

1.9 "*Service Line*" shall mean that portion of the individual household water line for which the Utility will not assume maintenance responsibility. The Service Line shall include only that portion of the individual household water line that extends from the Utility's water meter at or near the property line to the home. The portion of the line extending from the water meter to the water main at or near the street shall not be included in the term "Service Line."

1.10. "*REU*" shall mean one Residential Equivalent Unit, as defined as follows:

Meter Size	REU
Less than 1"	1.0
1"	2.5

1.11. "*Subdivision*" shall mean the property that is to be developed by the Developer, to be known as Falls Reserve Phase 4 Subdivision located in Wake County, North Carolina. The Subdivision shall consist of 16 single family residential lots. The Subdivision is shown on that certain map entitled 'Falls Reserve Phase 4.'

1.12. "*Utility*" shall mean Old North State Water Company LLC, a North Carolina limited liability company, its successors and assigns, whose business address is: 3212 6th Ave S, Ste 200, Birmingham, AL 35222.

1.13. "*Water Plans*" shall mean all plans and specifications, as may be amended from time to time, for the Water Utility System approved by the Utility and DWR and engineered by Developer's engineer.

1.14. "*Water Utility System*" shall mean the water distribution system and other facilities used in the distribution of the water utility service necessary to provide service to the lots of the Subdivision, including, but not limited to, the distribution mains, services, meter boxes, meter yokes, backflow preventors, valves, and other additional components of the Water Utility System necessary to serve water to the lots in the Subdivision.

1.15. "*Water Utility System Service Line*" shall mean the portion of the water line for which the Utility will assume maintenance responsibility. The Water Utility System Service Line shall include only that portion of the individual water line that extends from the water meter, at or near the property line or street, to the Water Utility System's water main at or near the street, unless the water meter is not on the individual lot owner's property in which case, the Utility shall assume maintenance responsibility up to the property line. The portion of the line extending from the water meter at or near the street to the house shall not be included in the term "Water Utility System Service Line."

2. Design and Installation Requirements

2.1. The Developer, at its cost, shall cause to be designed, constructed, and installed in the Subdivision the Water Utility System, in accordance with plans and specifications to be approved by the Utility and DWR and engineered by Developer's engineer. The Water Utility System shall be designed, constructed, and installed pursuant to the Utility's specifications, a copy of which has been delivered to the Developer or the Developer's engineer.

2.3. As required by North Carolina General Statute § 130A-317 and the Rules Governing Public Water Supply Systems, North Carolina Administrative Code 15A NCAC 18 C. 0305(a), neither the Developer nor the Utility shall construct or begin construction of any portion of the Water Utility System prior to approval of the Water Utility System plans and specifications by DWR or prior to the issuance of an Authorization to Construct by DWR.

2.4. Any penalties assessed against the Utility (as the applicant for the Water Utility System), the Developer's engineer, or the Developer by DWR as a result of the Developer installing all or a portion of the Water Utility System without DWR approval (i.e., construction beginning prior to DWR issuing its Authorization to Construct) shall be paid by Developer prior to meters being installed or water service being provided in the Subdivision.

2.5. The Developer shall pay for the engineering, design, permitting, construction, and installation costs related to the Water Utility System, including the engineer's certification of completion, and all costs associated with the construction and installation of the necessary water distribution to provide water service to the 16 lots in the Subdivision.

3. Conveyance of Water Utility System

3.1. The Developer agrees to convey to the Utility, upon completion of the Water Utility System, by bill of sale, the entire Water Utility System, constructed and installed in accordance with the plans approved by DWR and the Utility.

3.2. The Developer agrees to convey to the Utility by Bill of Sale the distribution mains, services, meter boxes, meter yokes, backflow preventors, valves, and additional components of the Water Utility System necessary and proper to serve water to all connections and lots in the Subdivision. *The Bill of Sale is attached hereto as EXHIBIT 3.2.*

3.3. If any water mains are not within publicly dedicated rights of way, the Developer shall convey to the Utility a perpetual easement 10 feet on each side of the water main, which easement shall be for ingress, egress, regress and access to operate, maintain, repair, and replace the water main and appurtenant equipment.

4. Certificate of Public Convenience and Necessity

4.1. Upon execution of this Agreement and issuance of the Authorization to Construct by DWR, the Utility will apply to the Commission, as soon as may be practicable, for a Certificate to provide water service to the Subdivision. Upon the granting of the Certificate by the Commission, the conveyance of the completed Water Utility System to the Utility, and the Closing occurring, the Utility will supply water service to the residents of the Subdivision

4.2. It is mutually understood and agreed that the sale and conveyance of the Water Utility System shall become effective only upon the granting of the Certificate by the Commission and approval of the Water Utility System by DWR.

5. Engineering Certification of Completion and Record Drawings

5.1. The Developer shall have its engineer furnish the Utility with a signed and sealed copy of the DWR required letter, certifying that the Water Utility System is installed in compliance with the approved plans.

5.2. The Developer shall have its engineer supply the Utility with an electronic copy of an accurate comprehensive map and engineering record drawings in plan and profile of the Water Utility System as constructed ("as-builts") and also a hard copy of the as-builts and map. The electronic version of the as-builts shall be submitted to the Utility in ".dwg" format and shall also include at the very least, pipe size, pipe material, pipe location, flow direction, date of install, service locations, meter box locations, and the longitude and latitude of each valve. Said record drawings shall depict the seal of the professional

engineer responsible for issuing the record drawings.

6. Subdivision Plats

The Developer shall provide the Utility with a recorded plat showing each lot being served or to be served by the Water Utility System. Said plat shall include utility and access easements in favor of the Utility for ingress, egress, regress and access to operate, maintain, repair, and replace the water mains and appurtenant equipment related to the water system.

7. Fees

7.1. *Meter Installation Fee*. The Meter Installation Fee for a 5/8" x 3/4" service shall be $125 and. This is a one-time fee and shall be paid by the person or builder requesting service to that location for the first time only. For meters greater than 5/8" x 3/4", the person or builder requesting service to that location for the first time shall be charged actual costs for the meter installation.

7.2. *New Customer Fee*. The New Customer Fee shall be $20.00 and shall be charged each time the name on account is changed.

7.3. *Connection Fee*. The Connection Fee shall be $500. This is a one-time fee and shall be paid by the person or builder requesting service to that location for the first time only.

8. Purchase Price Owed to Developer by the Utility

8.1 Utility is purchasing from Developer the completed Water Utility System. The Purchase Price paid by Utility shall be $500/REU. Said Purchase Price payment shall be payable quarterly based on the number of meters installed during the previous quarter. Payments shall be made on or about each January 30, April 30, July 30, and October 30.

8.2 Prior to the first purchase price payment being made by Utility to the Developer, the Developer shall execute and deliver to Utility an Internal Revenue Service Form W-9.

9. Written Certification of Costs

Developer, at the Closing, shall deliver to the Utility a written certification of the Developer's cost in the Water Utility System showing the cost of the entire Water Utility System, including distribution facilities and engineering fees for the Water Utility System. The cost certification shall include a breakdown between the various components showing the vendors and the applicable amounts. This written certification shall be delivered to the Utility at the Closing Date. *Said Written Certification of Costs Form is attached hereto as Exhibit* 11

10. Water Utility System Contractor's and Contractor's Warranty

10.1. The Utility must approve, in writing, prior to the commencement of any work, all contractors and subcontractors who will perform work on the installation of the water mains, services, and all other Water Utility System construction in the Subdivision.

10.2. The Developer's contractors shall provide to the Utility a one-year warranty on all Water Utility System components and workmanship. This warranty shall begin from the date of issuance of the final engineering certification. Should the Closing not occur within 90 days of the final engineering certification, the Developer shall provide an extended warranty on the Water Utility System for each month not closed beginning 90 days from the date of the engineer's final certification. *A sample warranty is attached hereto as EXHIBIT 10.2.*

11. CIAC Gross Up Payment

11.1. Prior to Closing, the Developer shall pay to Utility the Gross Up Payment attributable to all CIAC. Such amount shall be the product of multiplying the total amount of certification of costs pursuant to Section 9 of this Agreement by 29.65% (Certified Costs x 0.2965 = CIAC Gross Up Payment to Utility). The Parties acknowledge and agree that the formula utilized in this paragraph to determine the amount of CIAC tax due to Utility is based upon the Tax Cuts and Jobs Act of 2017 ("TCJA"). In the event that the TCJA is amended to provide a different formula, the new formula shall be applicable hereunder on the effective date of the new formula. The Closing shall not occur until the Developer pays the CIAC Gross Up Payment to Utility. If the Developer is constructing the Water Utility System in phases, then the requirements of this paragraph shall apply to the Closing for each phase.

11. Date of Closing

11.1. The Utility shall not provide water service to Subdivision until the date of the Closing when all the following events shall have occurred:

a. DWR has approved the Water Utility System plans.

b. The Developer has installed the Water Utility System pursuant to the DWR and the Utility approved plans.

c. The Commission has issued the Certificate as set forth in Paragraph 4.

g. As referenced in paragraph 5.2, Developer's engineer shall supply the Utility with an electronic copy of an accurate, comprehensive map and engineering record drawings in plan and profile as constructed ("as-builts") and also a hard copy of the as-builts. The electronic version of the as-builts shall be submitted to the Utility in ".dwg" format and shall include pipe size, pipe material, pipe location, flow direction, date of install, service locations, meter box locations, and the longitude and latitude of each valve as set forth in paragraph 5.2.

h. The Developer shall furnish the Utility with a list of physical addresses and lot numbers for each lot in Subdivision. *Said Address and Lot Number form is attached hereto as Exhibit 11.1.h.*

i. The Developer shall furnish Utility with a recorded plat with such water utility service related covenants and restrictions acceptable to the Utility for all lots in the Subdivision as set forth in Paragraph

j. The Developer's contractor has provided the Utility with a one year contractor's warranty on all water utility system components and workmanship pursuant to Paragraph 10.2.

k. The Developer has conveyed to the Utility by bill of sale and easements the water system as set forth in paragraph 3.2.

l. As referenced in Exhibit 11, the Developer delivers to the Utility a written certification of Developer's cost in the system pursuant to Paragraph 11.

m. As referenced in Paragraph 8.2, the Developer delivers to the Utility the W-9 form.

12. Binding Agreement

This Agreement shall be binding upon and shall inure to the benefit of the Developer and the Utility and the successors and assigns of each.

13. Representations and Warranties of the Developer

Developer hereby represents and warrants as follows:

13.1. Organization; Good Standing; Power. Developer is a corporation duly organized, validly existing, and in good standing under the laws of the State of North Carolina, and has all the requisite power and authority to own, lease and operate its properties, to carry on its business as now being conducted, and to enter into this Agreement and perform its obligations hereunder.

13.2. Authority Relative to Agreement. The execution, delivery and performance of this Agreement by the Developer have been duly and effectively authorized by all necessary action. This Agreement has been duly executed by Developer and is a valid and legally binding obligation of Developer enforceable in accordance with its terms except (i) as limited by (a) applicable bankruptcy, insolvency, reorganization, moratorium, fraudulent conveyance, or other laws of general application relating to or affecting the enforcement of creditors' rights generally, (b) laws relating to the availability of specific performance, injunctive relief, or other equitable remedies, or (ii) to the extent the indemnification provisions may be limited by applicable federal or state securities laws.

13.3. Effect of Agreement. The execution, delivery and performance of this Agreement by the Developer and the consummation of the transactions contemplated hereby will not (i) require the consent, approval or authorization of any person, corporation, partnership, joint venture or other business association or public authority other than the Commission, DWR, or Wake County, (ii) violate, with or without the giving of notice or the passage of time or both, any provisions of law now applicable to Developer, or (iii) result in a violation of Developer's charter or bylaws.

14. Representations and Warranties of the Utility

The Utility hereby represents and warrants as follows:

14.1. Organization; Good Standing; Power. The Utility is a corporation duly organized, validly

existing and in good standing under the laws of the State of North Carolina, is authorized to do business in North Carolina, and has all requisite corporate power and authority to own, lease and operate its properties, to carry on its business as now being conducted and to enter into this Agreement and perform its obligations hereunder.

14.2. Authority Relative to Agreement. The execution, delivery and performance of this Agreement by the Utility have been duly and effectively authorized by all necessary corporate action. This Agreement has been duly executed by the Utility and is a valid and legally binding obligation of the Utility enforceable in accordance with its terms except (i) as limited by (a) applicable bankruptcy, insolvency, reorganization, moratorium, fraudulent conveyance, or other laws of general application relating to or affecting the enforcement of creditors' rights generally, (b) laws relating to the availability of specific performance, injunctive relief, or other equitable remedies, or (ii) to the extent the indemnification provisions may be limited by applicable federal or state securities laws.

14.3. Effect of Agreement. The execution, delivery and performance of this Agreement by the Utility and the consummation of the transactions contemplated hereby will not (i) require the consent, approval or authorization of any person, corporation, partnership, joint venture or other business association or public authority other than the Commission, DWR, or Wake County, (ii) violate, with or without the giving of notice or the passage of time or both, any provisions of law now applicable to the Utility, or (iii) result in a violation of the Utility's charter or bylaws.

15. General Provisions

15.1. This writing embodies the entire agreement and understanding between the parties hereto and there are no other agreements or understandings, oral or written, with reference to the subject matter hereof that are not merged herein and superseded hereby.

15.2. Modification in Writing. This Agreement shall not be modified, amended or changed in any respect except in writing, duly signed by the Parties hereto, and each Party hereby waives any right to amend this Agreement in any other way.

15.3. No Assignment. Neither Party hereto may assign their rights under this Agreement without the prior written consent of the other Party.

15.4. No Third Party Beneficiary Rights. Nothing expressed or referred to in this Agreement will be construed to give any person other than the Parties any legal of equitable right, remedy or claim under or with respect to this Agreement or any provision of this Agreement.

15.5. Force Majeure. Except as provided for in this Agreement, neither Party to this Agreement shall be liable to the other for failure, default or delay in performing any of its obligation hereunder, if such failure, default or delay is caused by strikes or other labor problems, by forces of nature, unavoidable accident, fire, acts of the public enemy, interference by civil authorities, acts or failure to act, decisions or orders or regulations of any governmental or military body or agency, office or commission, delays in

receipt of materials, or any other cause, whether of similar or dissimilar nature, not within the control of the Party affected and which, by the exercise of due diligence such Party is unable to prevent or overcome, except as otherwise provided for herein. Should any of the foregoing events occur, the Parties hereto agree to proceed with diligence to do what is reasonable and necessary so that each Party may perform its obligations under this Agreement.

15.6. Enforcement of Agreement. The failure of either Party hereto to enforce any of the provisions of this Agreement or the waiver thereof in any instance by either Party shall not be construed as a general waiver or relinquishment on its part of any such provisions, but the same shall, nevertheless, be and remain in full force and effect.

15.7. Notices. All notices, requests and other communications under this Agreement shall be in writing and shall be delivered (i) in person if a written receipt of delivery is obtained, (ii) by registered or certified mail, return receipt requested, (iii) by recognized overnight delivery service providing positive tracking of items (for example, Federal Express), (iv) by electronic mail, or (v) by facsimile, provided if notice is given pursuant to (iv) or (v) that a copy is sent concurrently by one of the methods described in (i), (ii) or (iii) above, addressed as follows or at such other address of which the Developer orf the Utility shall have given notice as herein provided:

If to Utility: Old North State Water Company, LLC
3212 6th Avenue South, Suite 200
Birmingham, AL 35222
Attn: John McDonald, Managing Member

Copy to: Karen Kemerait.
Fox Rothschild LLP
434 Fayetteville Street, Suite 2800
Raleigh, NC 27601

If to Developer: Falls Lake Developers, LLC
7101 Creedmoor Rd, Ste 122
Raleigh, NC 27613

17.8. Incorporation of Exhibits. The Exhibits to this Agreement are made a part hereof and are hereby incorporated in full by reference.

17.9. Governing Law. This Agreement shall be governed by the laws of the State of North Carolina.

17.10. Representations, Warranties and Obligations Survive Closing. Except as may be expressly provided otherwise herein, the representations, warranties, and obligations contained herein shall merge with the documents delivered at Closing and not survive thereafter.

17.11. Entire Agreement. This Agreement sets forth the complete understanding between the Developer and the Utility, and any amendments hereto, to be effective, must be made in writing.

17.12. Counterparts. This Agreement may be executed in any number of counterparts, each of which will be deemed an original, but all of which together will constitute one and the same instrument.

17.13. Consent to Jurisdiction. The Parties agree that the state and federal courts of North Carolina shall have exclusive jurisdiction over this Agreement and any controversies arising out of, relating to, or referring to this Agreement, the formation of this Agreement, and actions undertaken by the Parties hereto as a result of this Agreement. Each of the Parties hereto expressly and irrevocably consents to the personal jurisdiction of such state and federal courts, agrees to accept service of process by mail, and expressly waives any jurisdictional or venue defenses otherwise available.

IN TESTIMONY WHEREOF, the Developer has caused this instrument to be executed by its manager authorized to execute contracts on behalf of the Developer, and the Utility has caused this instrument to be executed by its corporate officers authorized to execute and seal this contract on behalf of the corporation, the day and year first above written.

FALLS LAKE DEVELOPERS LLC

OLD NORTH STATE WATER COMPANY, LLC

John McDonald, Member

Exhibit 3.2

STATE OF NORTH CAROLINA
COUNTY OF WAKE

BILL OF SALE - WATER

KNOW ALL MEN BY THESE PRESENTS that FALLS LAKE DEVELOPERS (Seller), in return for valuable consideration received by the Seller from Old North State Water Company, LLC (Buyer), the sufficiency of which is hereby acknowledged, has bargained and sold and does by this instrument bargain, sell, and convey to the Buyer, its successors and assigns, the entire potable distribution system located in Falls Reserve Phase 4 Subdivision, Wake County, North Carolina, including, but not limited to distribution mains, valves, tees, ells, crosses, water main easements within publicly dedicated rights of way, and services, all property conveyed hereby being referred to as the Property.

To have and to hold the Property in fee simple.

IN TESTIMONY WHEREOF, the Seller has hereunto set his hand this the _____ day of _____ 2021.

_____

[Notary Page for Bill of Sale –Falls Reserve Phase 4 Subdivision Water System]

STATE OF NORTH CAROLINA

COUNTY OF WAKE

I, the undersigned, a Notary Public of the County and State aforesaid, certify that Andrew Sandman, whose identity has been proven by satisfactory evidence, said evidence being:

☑ I have personal knowledge of the identity of the principal(s)
☐ I have seen satisfactory evidence of the principal's identity, by a current state or federal identification with the principal's photograph in the form of a _____
☐ A credible witness has sworn to the identity of the principal(s);

personally came before me this day and acknowledged that he, in such capacity and being authorized to do so, voluntarily executed the foregoing on behalf of the corporation for the purpose stated therein and in the capacity indicated.

Witness my hand and official stamp or seal this 22nd day of June 2021.

Laura M. Johnson
Notary Public Signature

Print Name: Laura M. Johnson

My Commission Expires: 11-2-22

[AFFIX NOTARY SEAL BELOW-NOTE THAT SEAL MUST BE **FULLY LEGIBLE**]

LAURA M. JOHNSON NOTARY PUBLIC WAKE COUNTY, NC

Jones & Cnossen
ENGINEERING, PLLC
Civil Engineering | Construction Management | Land Planning

221 N. SALEM ST, SUITE 200
PO BOX 1062
APEX, NC 27502
Office: 919-387-1174
Fax: 919-387-3375
www.jonescnossen.com

October 16, 2023

Jon Frazier, PE
FLM Engineering
PO Box 91727
Raleigh, North Carolina 27675

RE: Falls Reserve – Phase 4
Water Main Certification

Dear Mr. Frazier,

As the Engineer of Record for Falls Reserve-Phase 4, I hereby state that construction of the water main has been completed in general accordance with the approved Construction Drawings dated November 30, 2021. The certification is based on periodic inspection of the constructed improvements including review of the as-built survey data for the water main. If you have any questions or if we may be of further assistance, please feel free to contact our office at any time.

Regards,

Peter D. Cnossen, PE
Jones & Cnossen Engineering, PLLC

NORTH CAROLINA PROFESSIONAL SEAL 17252 ENGINEER PETER D. CNOSSEN

10/16/23

[Notary Page for Bill of Sale –Falls Reserve Phase 4 Subdivision Water System]

STATE OF NORTH CAROLINA

COUNTY OF WAKE

I, the undersigned, a Notary Public of the County and State aforesaid, certify that Andrew Sandman, whose identity has been proven by satisfactory evidence, said evidence being:

☑ I have personal knowledge of the identity of the principal(s)
☐ I have seen satisfactory evidence of the principal's identity, by a current state or federal identification with the principal's photograph in the form of a _____
☐ A credible witness has sworn to the identity of the principal(s);

personally came before me this day and acknowledged that he, in such capacity and being authorized to do so, voluntarily executed the foregoing on behalf of the corporation for the purpose stated therein and in the capacity indicated.

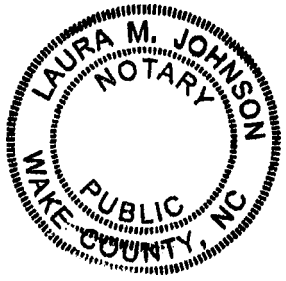
Witness my hand and official stamp or seal this 22nd day of June 2021.

Laura M. Johnson
Notary Public Signature

Print Name: Laura M. Johnson

My Commission Expires: 11-2-22

[AFFIX NOTARY SEAL BELOW-NOTE THAT SEAL MUST BE **FULLY LEGIBLE**]

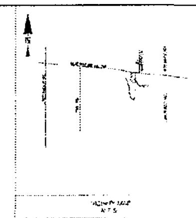


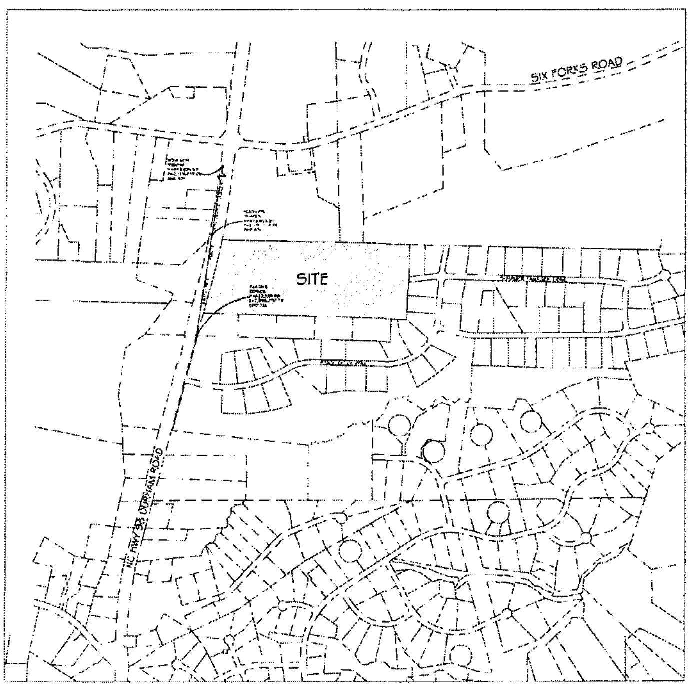
PUBLIC / REDACTED

THE RESERVE AT FALLS LAKE

CONSTRUCTION DRAWINGS

WAKE COUNTY PROJECT NO. PLG-3061-2021





SITE DATA	
PROJECT NAME	THE RESERVE AT FALLS LAKE PHASE 4
PROJECT ADDRESS	[illegible]
PREPARER'S CONTACT INFORMATION	JONES & CNOSSEN ENGINEERING, PLLC P.O. BOX 1062 APEX, NORTH CAROLINA 27502 PHONE [illegible] FAX [illegible] CONTACT PERSON - PETER D. CNOSSEN
OWNER / DEVELOPER CONTACT INFORMATION	FALLS LAKE DEVELOPERS, LLC [illegible] RALEIGH, NC [illegible] PHONE [illegible] FAX [illegible] CONTACT PERSON [illegible]
CURRENT PROPERTY ZONING	[illegible]
WAKE COUNTY PINS	[illegible]
CLASSIFICATION OF SUBDIVISION	CLUSTER DEVELOPMENT
TOTAL PROJECT AREA	[illegible] ACRES
AREA DEDICATED TO HIGHWAY 98 RW	[illegible] ACRES
NET SUBDIVIDABLE AREA	[illegible] ACRES
AREA OF R-40W ZONING	[illegible] ACRES
ALLOWABLE R-40W RESIDENTIAL LOTS	[illegible]
AREA OF R-80W ZONING	[illegible] ACRES
ALLOWABLE R-80W RESIDENTIAL LOTS	[illegible]
TOTAL ALLOWABLE RESIDENTIAL LOTS	[illegible]
PROPOSED RESIDENTIAL LOTS	[illegible]
PROPOSED RESIDENTIAL DENSITY	[illegible] UNITS PER ACRE
TOTAL OPEN SPACE AREA REQUIRED	[illegible]
TOTAL OPEN SPACE AREA PROVIDED	[illegible]
IMPERVIOUS SURFACE AREA	[illegible]
MINIMUM LOT SIZE	[illegible]
AVERAGE LOT SIZE	[illegible]
PROPOSED LINEAR FOOTAGE OF STREET	[illegible]

PHASE 4 CONSTRUCTION DRAWINGS - SHEET INDEX

1. COVER SHEET
2. EXISTING CONDITIONS PLAN
3. [illegible]
4. GRADING & STORM DRAINAGE PLAN
5. EROSION CONTROL PLAN
6. UTILITY PLAN
7. [illegible]
8. [illegible]
9. CONSTRUCTION DETAILS
10. WATER SYSTEM DETAILS

MINIMUM BUILDING SETBACKS	
[illegible]	[illegible]
REAR	[illegible]
SIDE	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]

IMPERVIOUS SURFACE DATA	
[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]

PRELIMINARY PLANS
NOT FOR CONSTRUCTION

GRAPHIC SCALE

Jones & Cnossen
ENGINEERING, PLLC
Civil Engineering | Construction Management | Land Planning

THE RESERVE AT FALLS LAKE
PHASE 4 CONSTRUCTION DRAWINGS

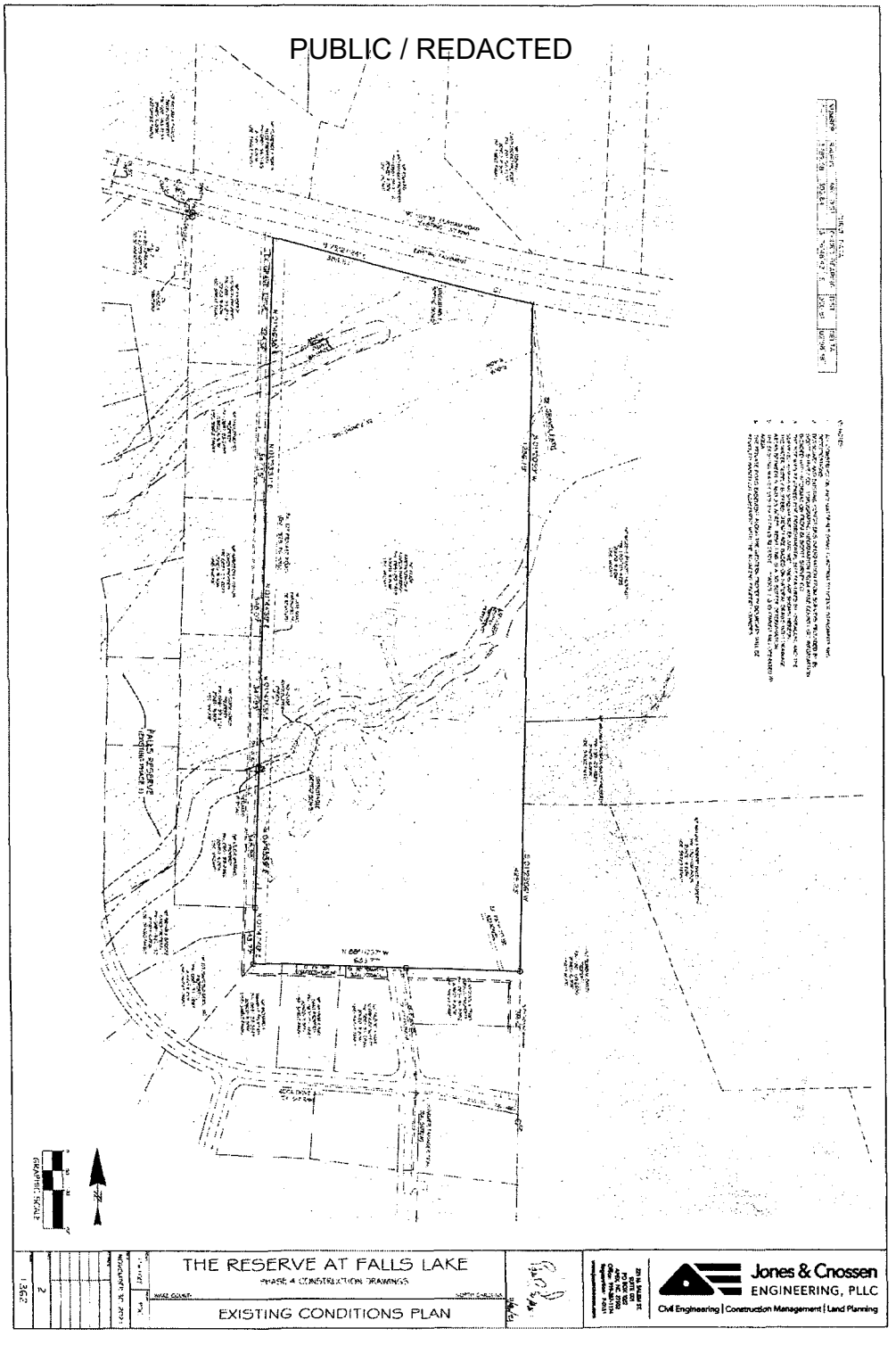
COVER SHEET

NOVEMBER 30, 2021

1362

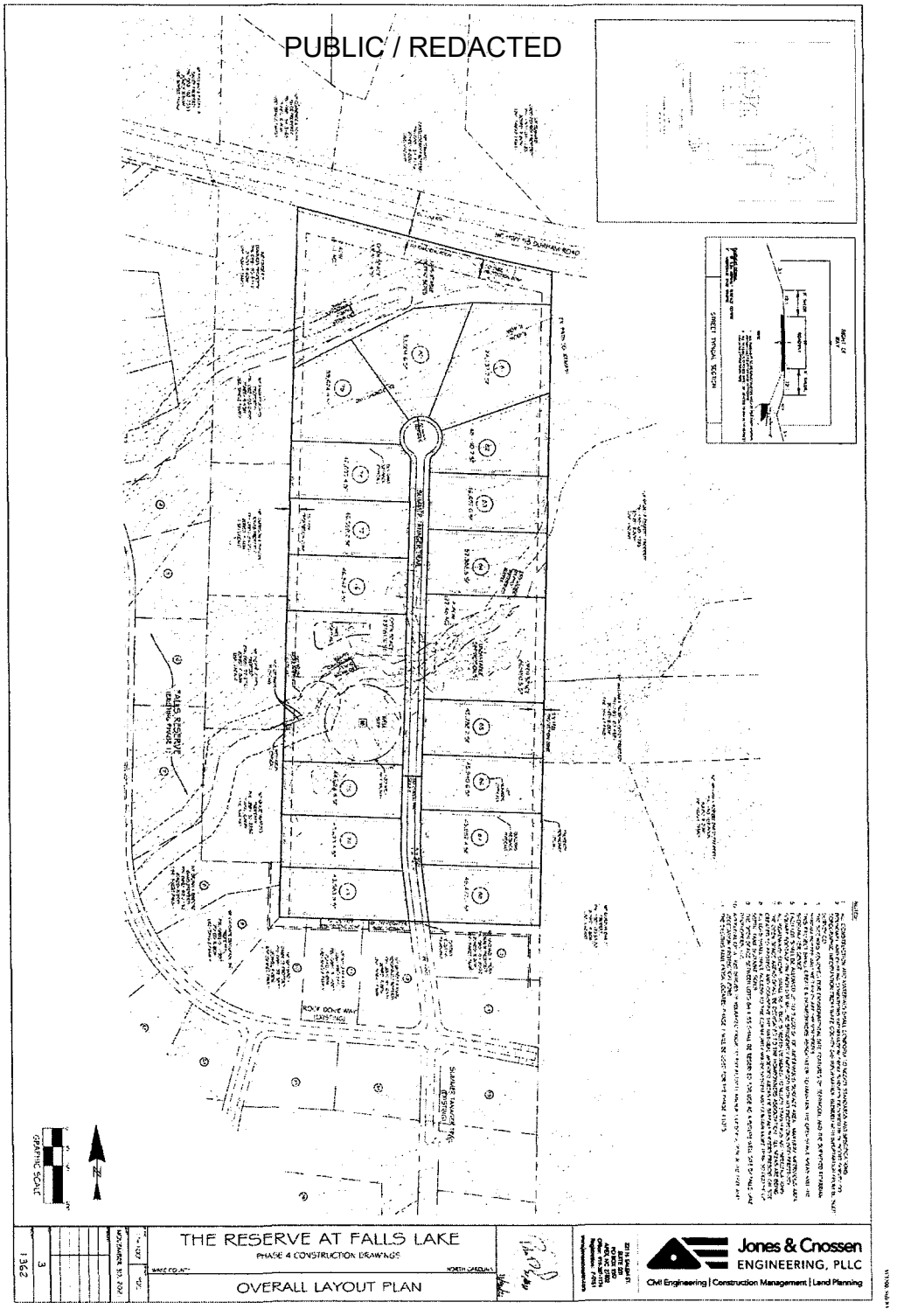
PUBLIC / REDACTED

ITEMS 9 & 10 ATTACHMENT
W-1300 SUB 83



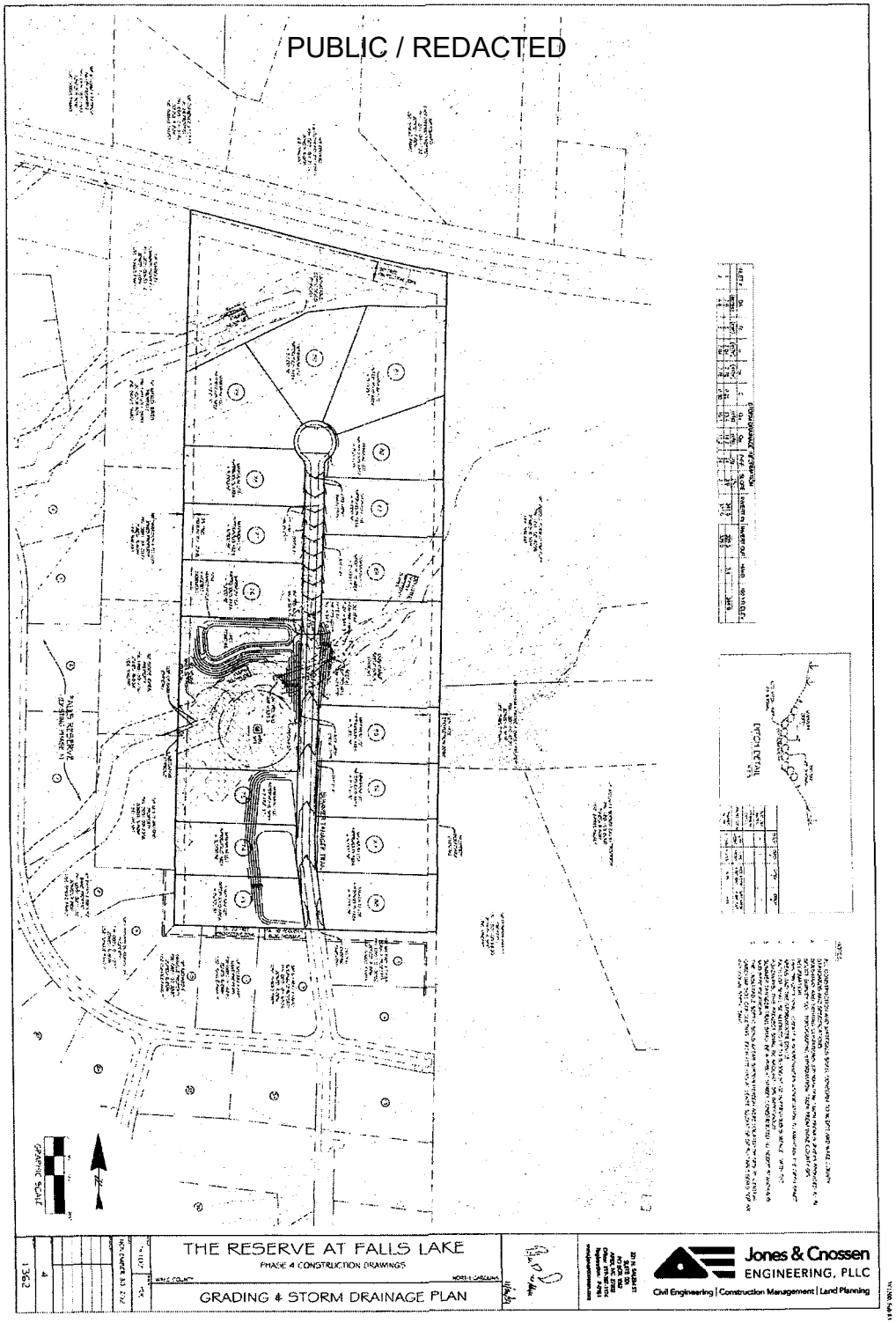
PUBLIC / REDACTED

ITEMS 9 & 10
ATTACHMENT
W-1300 SUB 83



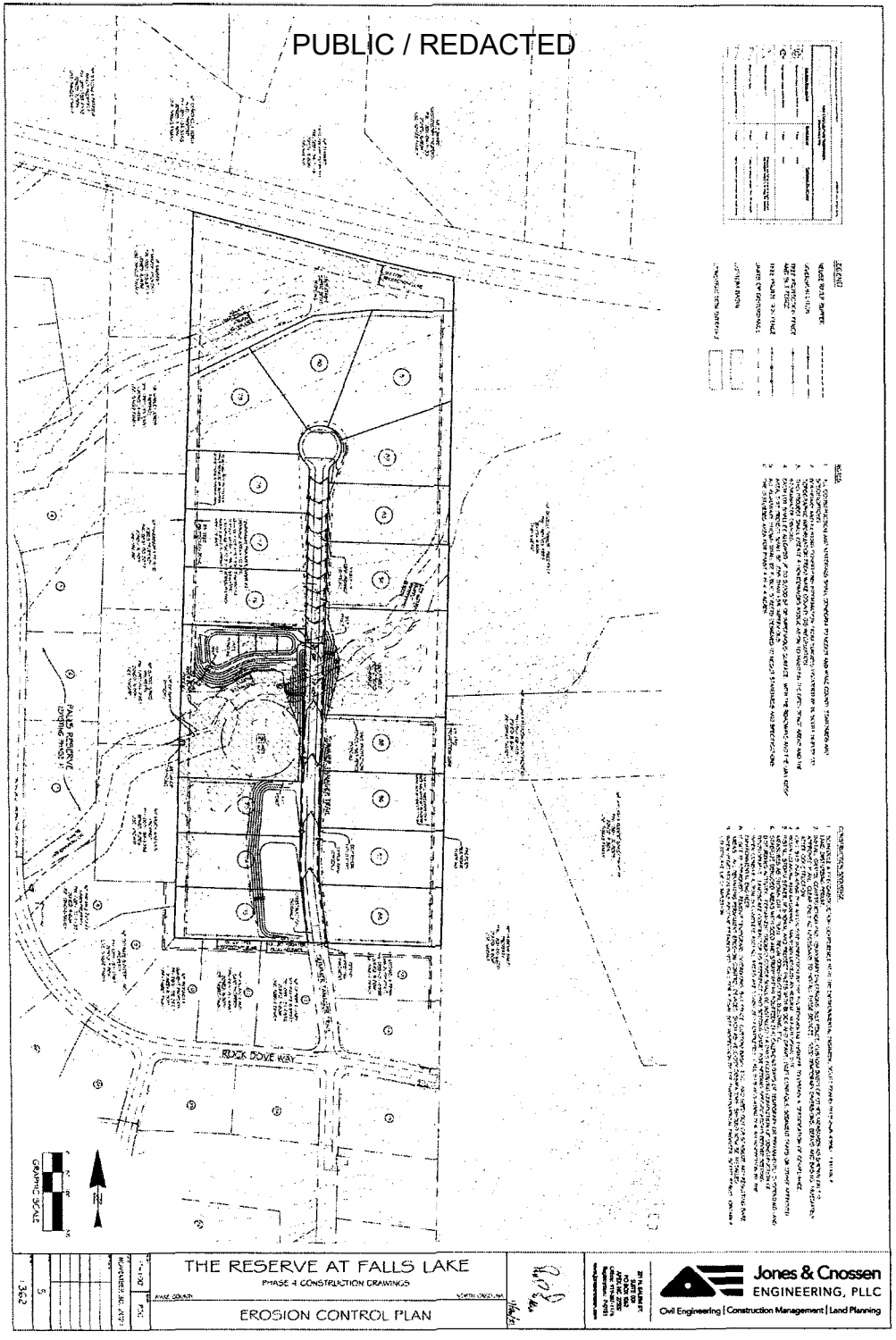
PUBLIC / REDACTED

ITEMS 9 & 10 ATTACHMENT
W-1300 SUB 83



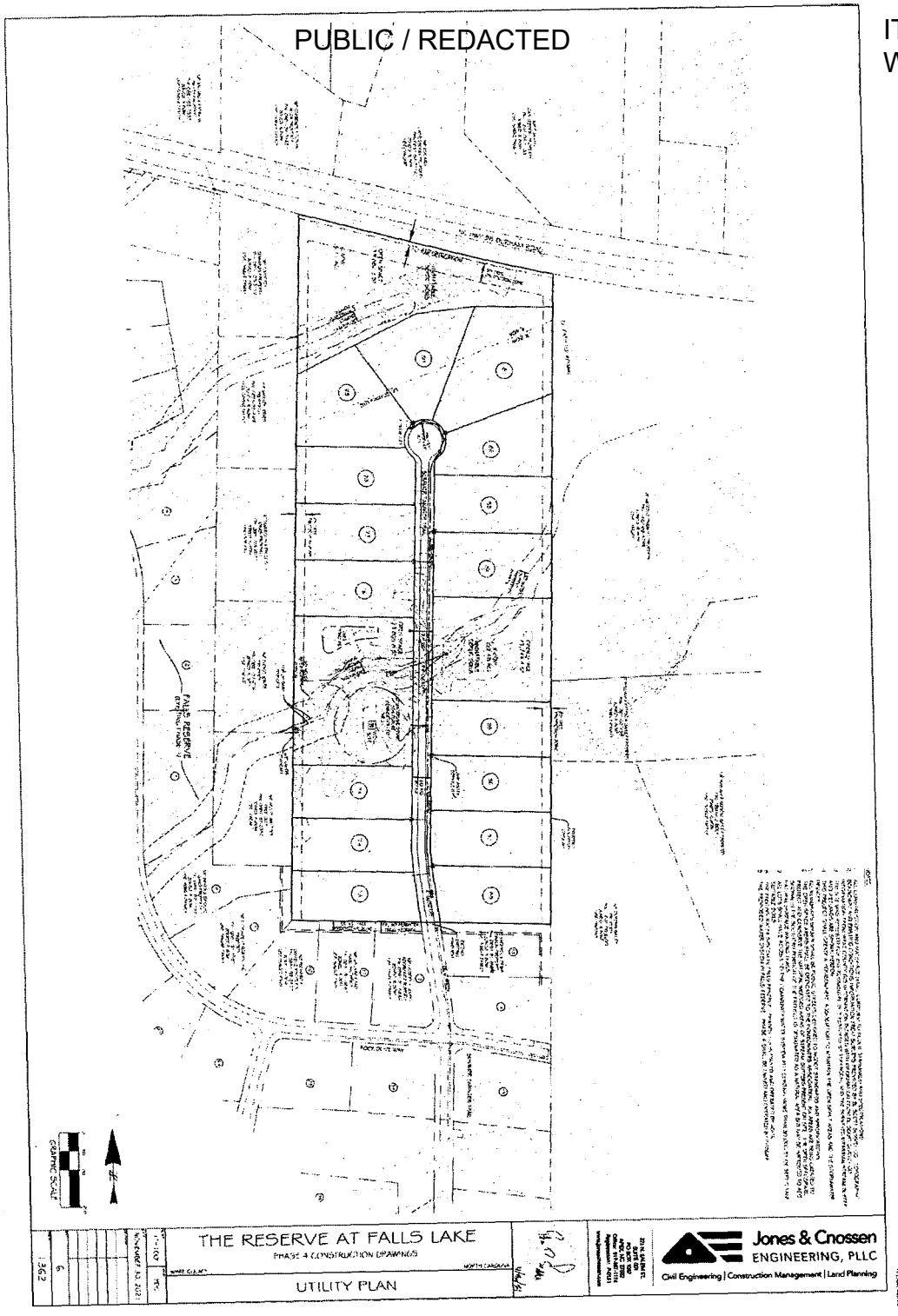
PUBLIC / REDACTED

ITEMS 9 & 10 ATTACHMENT
W-1300 SUB 83

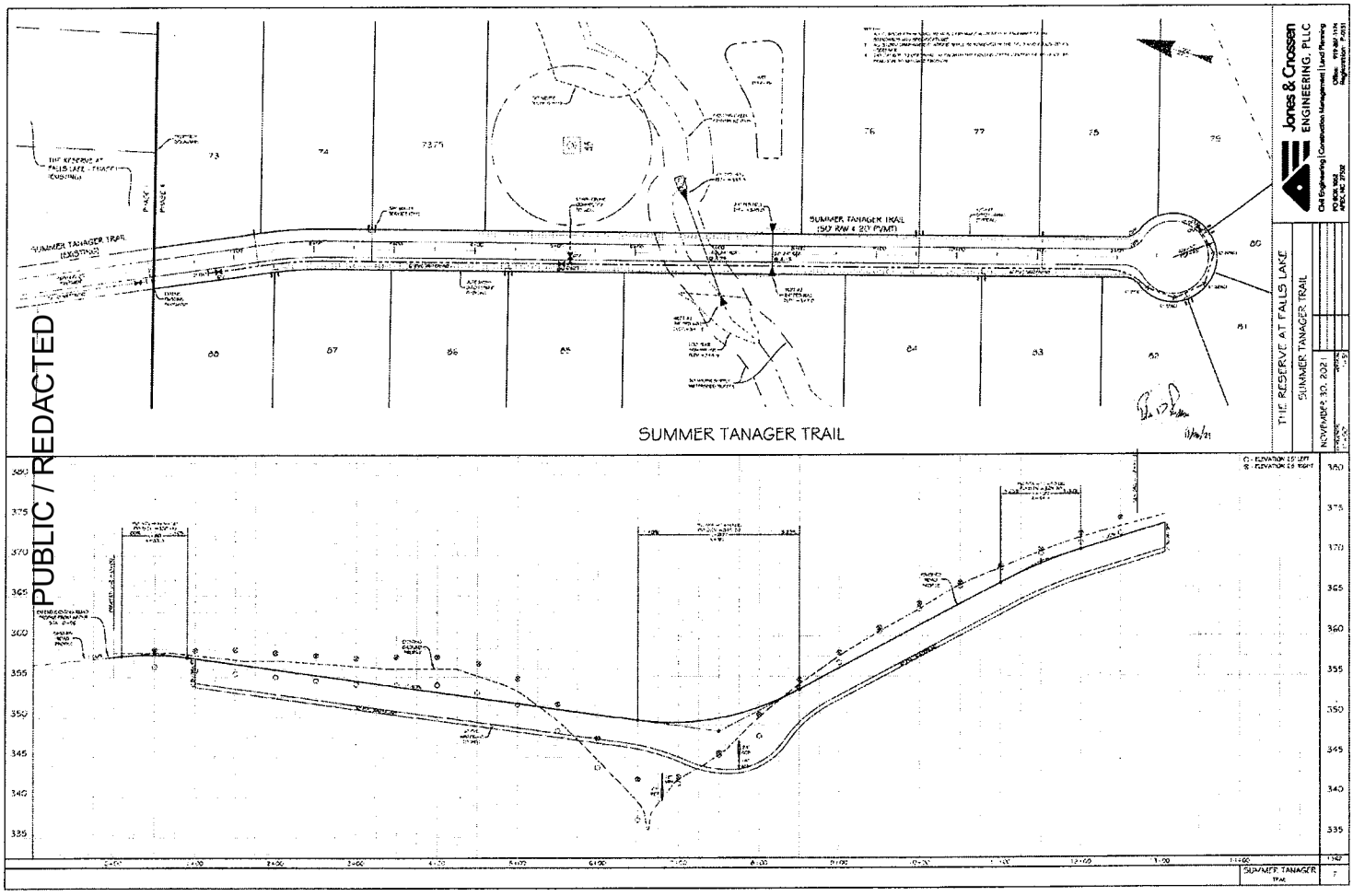


PUBLIC / REDACTED

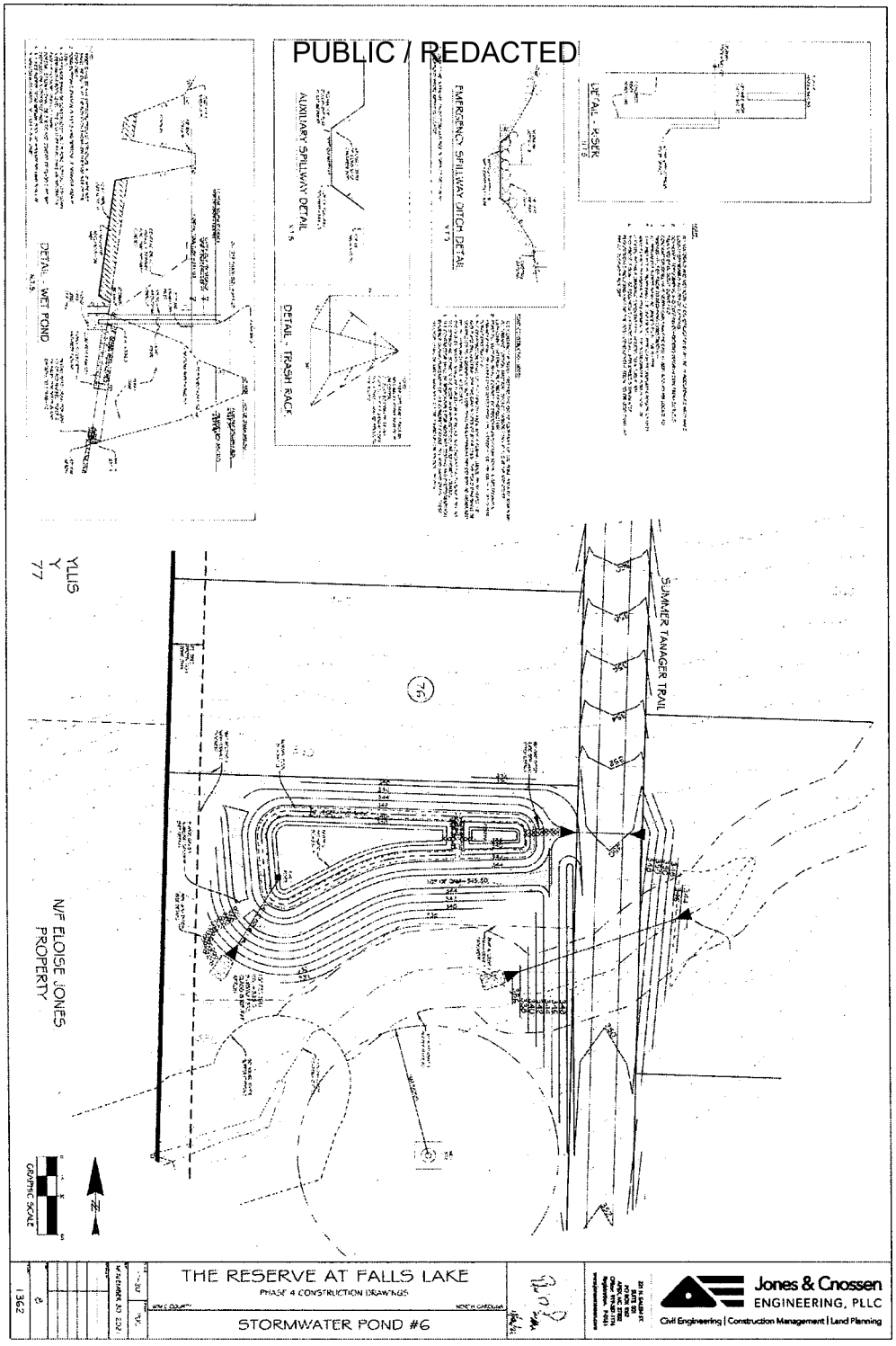
ITEMS 9 & 10 ATTACHMENT
W-1300 SUB 83



ITEMS 9 & 10 ATTACHMENT
W-1300 SUB 83

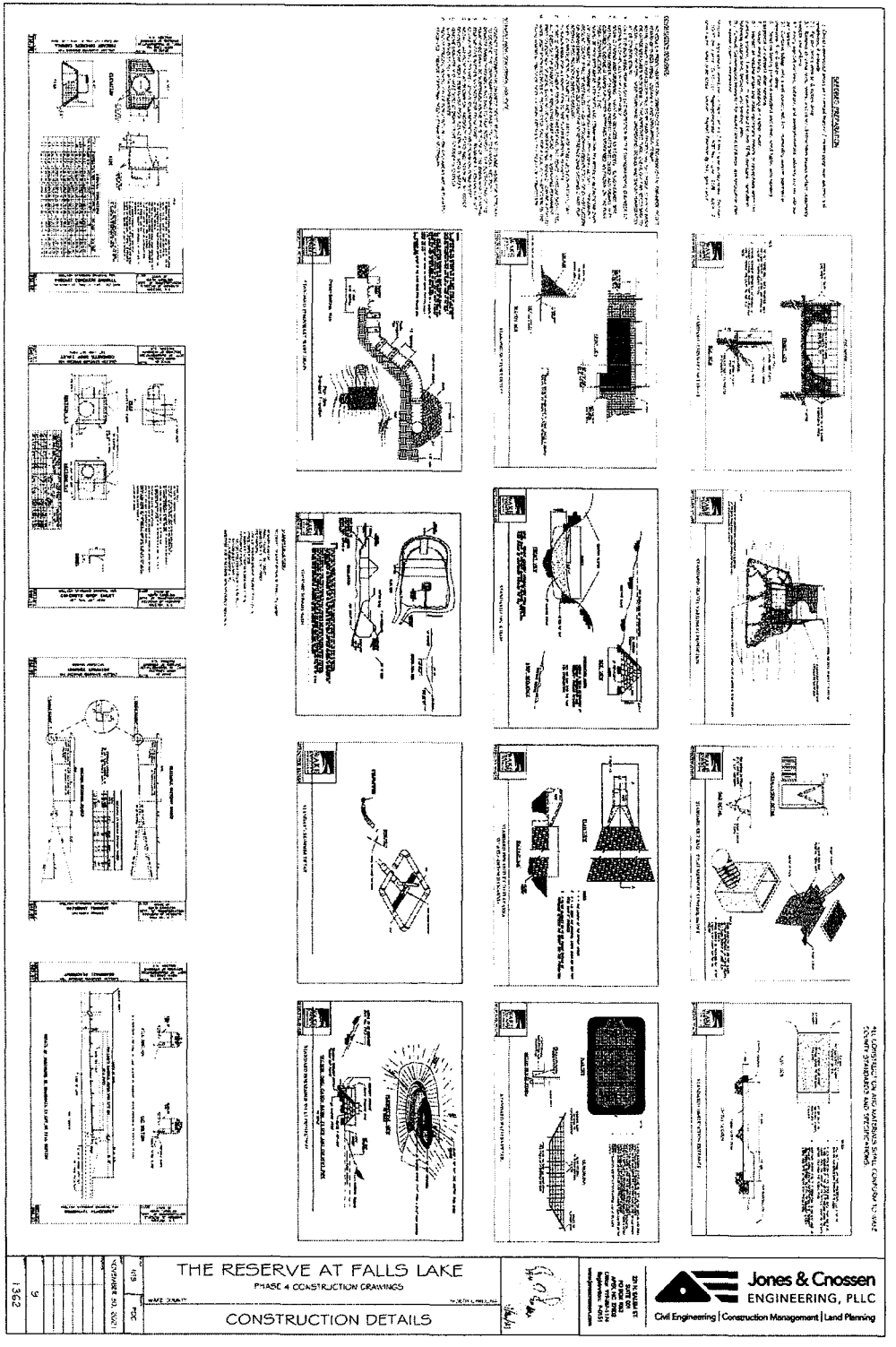


PUBLIC / REDACTED



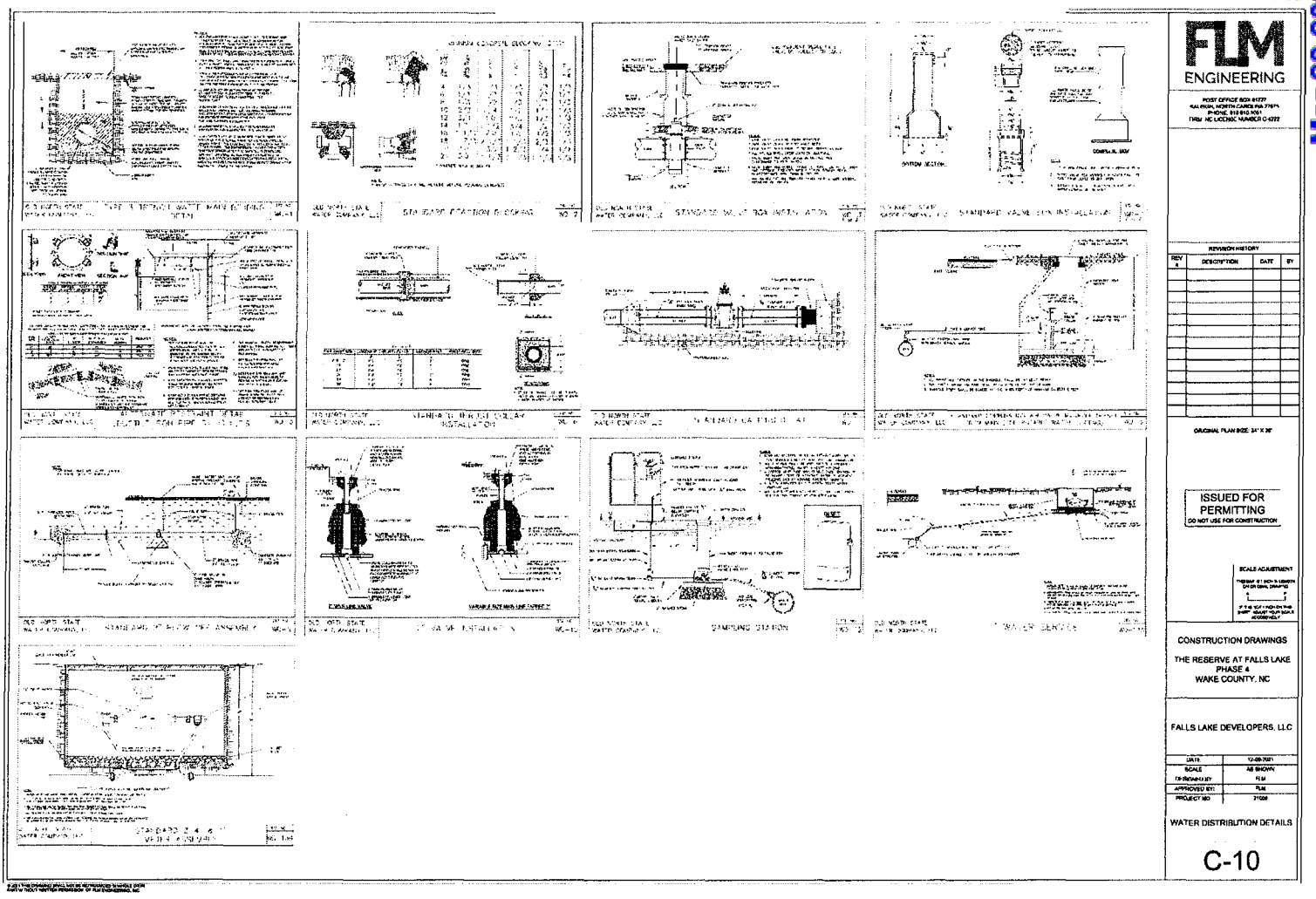
PUBLIC / REDACTED

ITEMS 9 & 10 ATTACHMENT
W-1300 SUB 83



PUBLIC / REDACTED

ITEMS 9 & 10
ATTACHMENT
W-1300 SUB 83



FLM ENGINEERING

POST OFFICE BOX 91727
RALEIGH, NORTH CAROLINA 27675
PHONE: 919.612.1051
FIRM NC LICENSE NUMBER C-1272

REVISION HISTORY

REV #	DESCRIPTION	DATE	BY

ORIGINAL PLAN SIZE: 24" X 36"

ISSUED FOR PERMITTING
DO NOT USE FOR CONSTRUCTION

SCALE ADJUSTMENT

CONSTRUCTION DRAWINGS

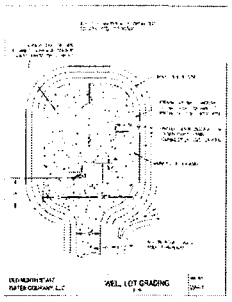
THE RESERVE AT FALLS LAKE
PHASE 4
WAKE COUNTY, NC

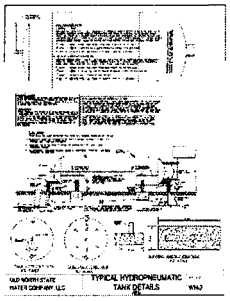
FALLS LAKE DEVELOPERS, LLC

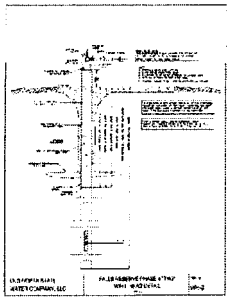
DATE	12-09-2021
SCALE	AS SHOWN
DESIGNED BY	FLM
APPROVED BY	FLM
PROJECT NO	21038

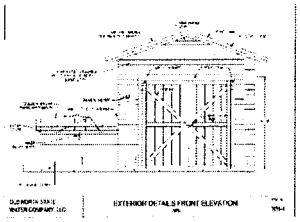
WATER DISTRIBUTION DETAILS

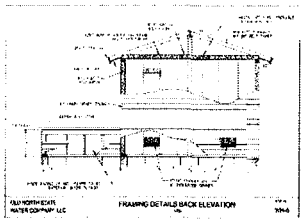
C-10

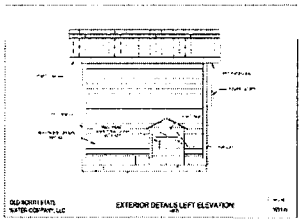


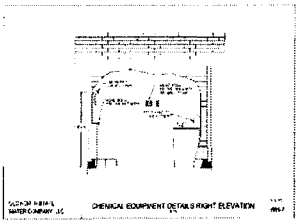


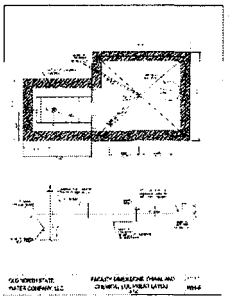


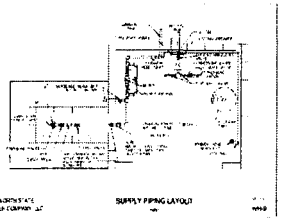


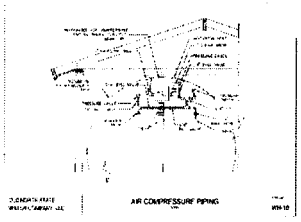


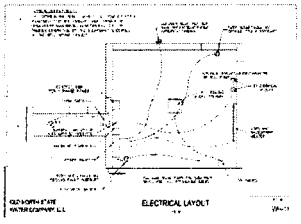


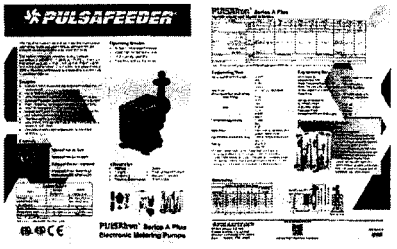












CHEMICAL FEEDER PUMP
(PULSAFEEDER PULSATRON SERIES A PLUS - MODEL LB03)
NO SCALE

FLM ENGINEERING

POST OFFICE BOX 91727
RALEIGH, NORTH CAROLINA 27675
PHONE: 919.676.1051
FIRM NC LICENSE NUMBER C-4222

REVISION HISTORY

REV #	DESCRIPTION	DATE	BY

ORIGINAL PLAN SIZE: 24" x 36"

ISSUED FOR PERMITTING
DO NOT USE FOR CONSTRUCTION

SCALE ADJUSTMENT

CONSTRUCTION DRAWINGS

THE RESERVE AT FALLS LAKE
PHASE 4
WAKE COUNTY, NC

FALLS LAKE DEVELOPERS, LLC

DATE	12-09-2021
SCALE	AS SHOWN
DESIGNED BY	FLM
APPROVED BY	FLM
PROJECT NO.	21008

WATER SUPPLY WELL "TW2" DETAILS

C-11

PUBLIC / REDACTED

ITEMS 9 & 10 ATTACHMENT
W-1300 SUB 83

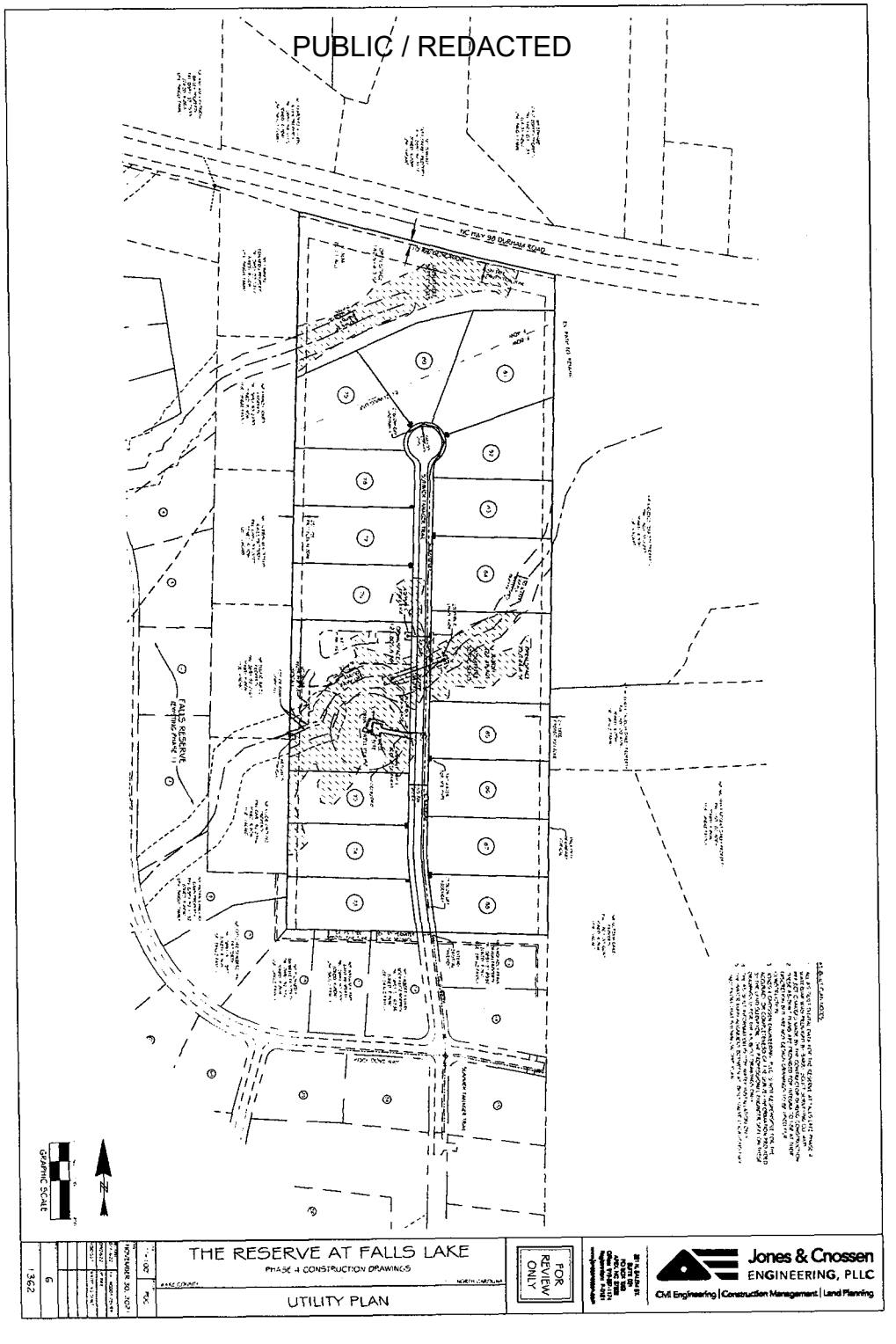


Exhibit 11

RE: DEVELOPER'S WRITTEN CERTIFICATION OF COSTS - WATER

Following is the information you requested for Falls Reserve Phase 4 Subdivision Water System which consist of 16 Lots.

(1) Engineering

(2) Water Mains & Services

(3) Well Drilling & 24-hr Test

(4) Well Houses

(5) Meter

(6) Supply Main

(7) Air Compressor

(8) Pump & Motor

(9) Chemical Pumps

(10) Tank and Installation

(11) Filter System (if any)

(12) Value of Well Lot

[redacted]

(13) **TOTAL**

I certify the above represents the actual cost for installation of the water system for Falls Reserve Phase 4 Subdivision Water System.

Rick Grant Greenpoint

Printed Name

Signature

Exhibit 11.1.h.

List of Lot Numbers and Addresses Form
Subdivision Name: Falls Lake Reserve Phase 4

Lot #	Address
73	7409 Summer Tanager Trail
74	7413 Summer Tanager Trail
75	7417 Summer Tanager Trail
76	7429 Summer Tanager Trail
77	7433 Summer Tanager Trail
78	7437 Summer Tanager Trail
79	7441 Summer Tanager Trail
80	7445 Summer Tanager Trail
81	7440 Summer Tanager Trail
82	7436 Summer Tanager Trail
83	7432 Summer Tanager Trail
84	7428 Summer Tanager Trail
85	7420 Summer Tanager Trail
86	7416 Summer Tanager Trail
87	7412 Summer Tanager Trail
88	7408 Summer Tanager Trail

PUBLIC / REDACTED

CONFIDENTIAL

Old North State Water Company, Inc.
Balance Sheet
September 2023
Internal use

	9/30/2023	
Property, Plant and Equipment	[redacted]	
Accumulated Depreciation		
Property, Plant and Equipment, net		
Current Assets		
Cash		
Accounts receivable, net		
Prepaid expenses		
Total current assets		
Other assets		
Work in process		
Intangible assets		
Security deposits		
Deferred rate case		
Other assets		
Due from affiliates		Due from CN and CNH
Total other assets		
Total Assets		
Paid in capital		
Retained earnings		
Current year loss		
Shareholder's Equity		
Current Liabilities		
Accounts payable		
Other current liabilities		
Total Current Liabilities		
Long-Term Liabilities		
Due to affiliates		
Total Long-Term Liabilities		
Contributions in Aid of Construction		
Cost of Assets		
Accumulated amortization		
Prepaid CIAC (utility)		
Total Contriutions in Aid of Construction		
Total Shareholder's Equity and Liabilities		

PUBLIC / REDACTED

CONFIDENTIAL

Old North State Water Company, Inc.
Statement of Operations
September 2023
Internal use

	2023 YTD	
Operating Revenue	[redacted]	
Operating Expense		
Operation and maintenance		
Taxes and licenses		
Depreciation		
Amortization		
Total Operating Expense		
Operating Loss		
Other Income (Expense)		
G&A expense		Legal expense reclassed from Operating to G&A
Interest income		
Interest expense		Interest on Bond LOC and Carolina Plantations note
Total Other Income (Expense)		
Net Loss		

Old North State Water Company, Inc.
Statement of Cash Flows
September 2023
Internal use

	2023 YTD
Cash Flows from Operating Activities	
Net Loss	[redacted]
Adjustments to reconcile change in net assets to net cash provided by operating activities:	
Depreciation	
Amortization-CIAC	
Changes in assets and liabilities that provided cash:	
Accounts receivable	
Prepaid expenses	
Security deposits	
Deferred rate case	
Due from affiliates	
Accounts payable	
Other current liabilites	
Net cash provided by operating activities	
Cash Flows from Investing Activities	
Purchases of Property & Equipment	
Net cash provided by investing activities	
Cash Flows from Financing Activities	
Receipt of contributions in aid of construction	
Paid in capital	
Principal payment	
Advances for construction	
Net cash provided by financing activities	
Net Increase in Cash and Cash Equivalents	
Cash and cash equivalents, beginning of year	
Cash and cash equivalents, end of year	