

INDEX TO EXHIBITS OF D LOGAN
DOCKET NOS. W-1300 SUB 77 AND
W-1305 SUB 35

EXHIBIT IDENTIFICATION	DESCRIPTION	PAGE NUMBER
WLI INVESTMENTS DIRECT EXHIBIT NO. 1	DEVELOPMENT AGREEMENT	1
WLI INVESTMENTS DIRECT EXHIBIT NO. 2	SANITARY SEWER DESIGN NARRATIVE FOR LEA LOTS	23
WLI INVESTMENTS DIRECT EXHIBIT NO. 3	EMAIL COMMUNICATIONS RELATED TO “LEA TRACT OPTIONS”	43
WLI INVESTMENTS DIRECT EXHIBIT NO. 4	EMAILS BETWEEN MCDONALD AND GALLARDA	53
WLI INVESTMENTS DIRECT EXHIBIT NO. 5	MAP OF SALTERS HAVEN AT LEA MARINA, WYNDWATER, AND COASTAL PLANTATION	72
WLI INVESTMENTS DIRECT EXHIBIT NO. 6	SANITARY SEWER DESIGN NARRATIVE FOR SALTERS HAVEN AT LEA MARINA	73

AGREEMENT

This Agreement, made this 13th day of December, 2018, by and between WLI Investments LLC., a Limited Liability Company whose business address is 60 Gregory Road, Ste 1 Belville, NC 28451 ("Developer") and OLD NORTH STATE WATER COMPANY, a North Carolina Limited Liability Corporation whose business address is 4700 Homewood Ct, Suite 108, Raleigh, North Carolina 27609 ("Utility").

WITNESSETH

THAT WHEREAS, Developer intends to develop a residential subdivision comprised of approximately 338 single-family residences to be known as the Salters Haven at Lea Marina ("Subdivision") on certain lands located off Factory Road, in Pender County, North Carolina, as shown on that certain map by Paramounte Engineering entitled "Lot Typology Exhibit, Salters Haven at Lea Marina" attached hereto as **Exhibit 1**; and

WHEREAS, Developer desires to install in the Subdivision the Wastewater Collection System (defined below) to allow for wastewater utility service to all those persons now or hereafter owning or maintaining lots in the Subdivision and requiring wastewater utility service; and

WHEREAS, the Wastewater Collection System to be installed to serve the Subdivision will be interconnected to Utility's existing Majestic Oaks Wastewater Facilities (defined below); and

WHEREAS, Developer has requested Utility to purchase, own and operate said Wastewater Collection System; and

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

WHEREAS, the Developer has committed 30 of the 338 REUs to an area outside of the Subdivision and has committed to construction of the Wastewater Collection necessary to serve these 30 REUs;

WHEREAS, Utility agrees to provide Wastewater Service for these 30 REUs in accordance with the terms and conditions set forth herein for the Extended Service Area for the benefit of Salters Haven at Lea Marina and the extended service area ("ESA"), when ONSWC obtains a Certificate Extension from the Commission.

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

1. Definitions.

1.1. "Agreement" shall mean this Agreement dated December _____ 2018, for the installation, conveyance, and operation of the Wastewater Collection System Assets (defined below) serving Salters Haven at Lea Marina (including all exhibits and schedules hereto, if any, as amended from time to time).

1.2. "As-built Drawings" shall have the meaning set forth in Section 4.5 and 5.5.

1.3. "Certificate" shall mean the Certificate of Public Convenience and Necessity for providing wastewater utility service in Salters Haven at Lea Marina to be issued by the Commission (defined below).

1.4. "Certificate Extension" shall mean an extension to the Certificate.

1.5. "Closing" shall mean each instance upon which Wastewater Collection System Assets (defined below), as the context requires, are transferred from Developer to Utility.

1.6. "Closing Date" shall mean the date of the applicable initial or subsequent Closing.

1.7. "Commission" shall mean the North Carolina Utilities Commission.

1.8. "County" shall mean Pender County, North Carolina.

1.9. "Declaration" shall have the meaning set forth in Section 14.

1.10. "Developer" shall have the meaning set forth in the preamble.

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

1.12. "ESA" shall mean an extended service area located outside, but in the general vicinity of Salters Haven at Lea Marina.

1.13. "GPD" means gallons per day.

1.14. "Grinder Pump Station" shall mean the wastewater grinder pump, tank, and controls that may be located at certain customer's property near the dwelling or commercial building into which the customer's wastewater enters and is then pumped into the Wastewater Collection System.

1.15. "Grinder Pump Valve Box" shall mean a box located near the collection main on a residential lot or in a commercial area served by a Grinder Pump Station which contains a valve that can be used to isolate a Grinder Pump Station from the Wastewater Collection System.

1.16. "Off-site Pump Station" shall mean the wastewater pump station to be constructed by Developer that will receive all wastewater produced from homes within the Subdivision and will transfer such wastewater to the Majestic Oaks Wastewater Facilities.

1.17. "Off-site Pump Station Lot" shall mean the parcel of land to be conveyed by Developer to Utility on which the Off-Site Pump Station will be constructed. Located at 1188 Factory Road, Hampstead, NC 28443

1.18. "Off-Site Forcemain" shall mean the 4" & 6" forcemain to be constructed by the developer that will convey the wastewater produced from the homes within the Subdivision to the Majestic Oaks Wastewater Facilities.

1.19. "Majestic Oaks Wastewater Facilities" shall mean the Utility's existing wastewater facilities constructed in the Majestic Oaks Subdivision, including the wastewater treatment plant, and all associated equipment, lift stations, and combined gravity and low pressure wastewater collection systems used in the collection, treatment, holding and disposal of the wastewater, and to which the Wastewater Collection System will be connected.

1.20. "Majestic Oaks Wastewater Facilities Expansion" shall mean the expansion of the Majestic Oaks Wastewater Subdivision, including construction of additional disposal area sufficient to treat and dispose of up to 200,000 gpd.

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

(a) If there is no water or wastewater meter for such Unit: 210 GPD per residence, or 70 GPD per bedroom.

(b) If there is a water and/or a wastewater meter:

Meter Size	REU
less than 1"	1
1"	2.5
1.5"	5.0
2"	8.0
3"	15.0
4"	25.0
6"	50.0

1.22. "Sewer Extension Permit" shall mean the permit issued by DWR to ONSWC for the construction and operation of the Wastewater Collection System Permit, including all modifications thereto.

1.23. "Single Family Residential Equivalent" or "SFRE" shall mean a single family residential connection based on 210 gpd per single family resident regardless of the number of bedrooms

1.24. "Subdivision" shall have the meaning set forth in the preamble.

1.25. "Utility" shall have the meaning set forth in the preamble.

1.26. "Off-Site Wastewater Collection System" shall mean the Off-Site Wastewater Pump Station, Off-Site Wastewater Forcemain, Off-Site Wastewater Pump Station Lot and the Off-Site Wastewater Forcemain Easement (defined below), and all appurtenant equipment that will deliver wastewater conveyed by the On-Site Wastewater Collection System and the ESA to the Majestic Oaks Wastewater Treatment Facility. Off-Site Wastewater Collection System shall not include that portion of the sewer system within the community.

1.27. "Off-Site Wastewater Collection System Assets" shall mean the Lea Pump Station, Lea Forcemain, Lea Pump Station lot

1.28. "On-Site Wastewater Collection System" shall mean the Wastewater Service Lines (defined below), pressure sewer lines, gravity sewer lines, force mains, lift stations, sewer clean outs, and all appurtenant equipment that will deliver wastewater produced by the houses within the Subdivision. Wastewater Collection System shall not include that portion of sewer line extending from the house to the sewer cleanout.

1.29. "On-Site Wastewater Collection System Assets" shall mean the Wastewater Collection System, and the Wastewater Collection System Easements (defined below).

1.30. "Wastewater Collection System Easement Areas" shall mean those areas within the Subdivision that are subject to the Wastewater Collection System Easements (defined below).

1.31. "Wastewater Collection System Easements" shall mean (i) a perpetual easement within the rights of way of all publicly dedicated streets and roads within each phase of development of the Subdivision for ingress, egress, regress, and access for the installation, operation, maintenance, repair and replacement of the Wastewater Collection System; (ii) to the extent any portion of the Wastewater Collection System is not within publicly dedicated rights of way, a perpetual easement, with a total width of fifteen (15) feet centered on the Wastewater Collection System main, for ingress, egress, regress, and access to install, operate, maintain, repair and replace such portion of the Wastewater Collection System; and (iii) for each Wastewater Service Line a perpetual easement with a total width of ten (10) feet centered on the Wastewater Service Line and a fifteen (15) foot diameter circle centered at the center of the residential lot cleanup or grinder pump station.

1.32. "Wastewater Collection System Phase" shall mean any discrete portion of the Wastewater Collection System constructed during a particular phase of development of the Subdivision.

1.33. "Wastewater Collection System Plans" are all plans and specifications for the Wastewater Collection System prepared by Developer's engineer.

1.34. "Wastewater Service Line" shall mean the portion of individual household wastewater line for which ONSWC shall assume ownership and maintenance responsibilities. The Service Line shall include only that portion of the wastewater line that extends from the

wastewater clean-out or Grinder Pump Valve Box to ONSWC's wastewater main located at or near the street. The portion of the line extending from the home or commercial building to the wastewater clean-out or Grinder Pump Station and Grinder Pump Valve Box shall not be included in the term "Service Line."

2. Representations And Warranties Of Developer.

Developer hereby represents and warrants as follows:

2.1. Organization; Good Standing; Power. Developer is a limited liability company duly formed, 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.

2.2. Authority Relative to Agreement. The execution, delivery and performance of this Agreement by Developer have been duly and effectively authorized by all necessary action. This Agreement has been duly executed by Developer and, to Developer's knowledge, and assuming that the representations and warranties in Section 3.2 are accurate, 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, and (ii) to the extent the indemnification provisions may be limited by applicable federal or state securities laws.

2.3. Effect of Agreement. The execution, delivery and performance of this Agreement by 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 or DWR, (ii) to Developer's knowledge, 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 articles of formation and operating agreement.

3. Representations and Warranties of Utility.

Utility hereby represents and warrants as follows:

3.1. Organization; Good Standing; Power. Utility is a limited liability company duly formed, validly existing and in good standing under the laws of the State of 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.

3.2. Authority Relative to Agreement. The execution, delivery and performance of this Agreement by Utility have been duly and effectively authorized by all necessary corporate action. This Agreement has been duly executed by Utility and is a valid and legally binding obligation of 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.

3.3. Effect of Agreement. The execution, delivery and performance of this Agreement by 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 or DWR, (ii) violate, with or without the giving of notice or the passage of time or both, any provisions of law now applicable to Utility, or (iii) result in a violation of Utility's articles of formation or operating agreement.

4. Design, Permitting, and Installation of On-Site Wastewater Collection System.

4.1. Design and Permit Requirements. For each On-Site Wastewater Collection Phase, Developer, at Developer's cost and expense, shall (i) engage a qualified, licensed engineer to prepare the Wastewater Collection System Plans and a Sewer Extension Permit; (ii) obtain Utility's approval of the On-Site Wastewater Collection System Plans, such approval not to be unreasonably withheld, conditioned or delayed; (iii) file a Sewer Extension Permit application with DWR; and (iv) if required, seek the County's approval of the On-Site Wastewater Collection System Plans. Utility shall cooperate fully with Developer and Developer's engineer to expedite issuance of the Sewer Extension Permit by DWR (including by providing Developer with written confirmation that Utility has allocated 64,680 GPD of capacity in the expanded Majestic Oaks Wastewater Facilities to Developer to serve the residential units within the Subdivision and 3204 gpd in the expanded Majestic Oaks Wastewater Facilities to Developer to serve the other amenities within the subdivision) and approval by the County of the On-Site Wastewater Collection System Plans, if required.

4.2. Installation Requirements. Developer, at Developer's cost and expense, shall cause to be installed in the Subdivision, a complete On-Site Wastewater Collection System, which shall include interconnection of such system to the Off-Site Pump Station. Utility reserves the right to make periodic inspections of the On-Site Wastewater Collection System's installation; provided, however, that such inspection should not be considered a substitute for the Developer's engineer's duties and responsibilities to inspect the installation. Developer shall pay for the installation costs of all the necessary components of the On-Site Wastewater Collection System to provide wastewater utility service to all lots in the Subdivision. The On-Site Wastewater Collection System shall be constructed in such a manner as to restrict entry of groundwater and surface waters into the Wastewater Collection System to at least the minimum standards established by the DWR regulations for infiltration/inflow. Developer acknowledges that failure to install a "tight" collection system could result in infiltration/inflow causing the WWTP to exceed its permitted flow limit, which could limit the number of connections that can be served by the Utility.

4.3. On-Site Wastewater Service Line. Developer shall provide a On-Site Wastewater Service Line to each house within the Subdivision. This On-Site Wastewater Service Line shall consist of a 4" wastewater service tap, a service pipe of adequate size to serve the residence, a clean out at the easement or right of way line, and an elder valve. Developer shall use its best efforts to ensure that its employees, contractors and subcontractors under its control do not break, damage or bury these cleanouts.

4.4. On-Site Wastewater Collection System Contractors and Construction Guarantee. Prior to the commencement of work on the On-Site Wastewater Collection System, Developer shall obtain Utility's approval of all contractors and subcontractors who will perform work on the installation of the On-Site Wastewater Collection System including, but not limited to, On-Site Wastewater Service Lines. Developer or Developer's contractor shall provide to Utility a one-year warranty on all On-site Wastewater Collection System components and workmanship. This warranty shall begin from the date of Closing.

4.5. Engineering Certification of Completion & Record Drawings. Developer, at Developer's cost and expense, shall require its engineer to furnish DWR and Utility with a signed and sealed copy of the DWR-required letter from Developer's engineer certifying that the On-site Wastewater Collection System has been installed in compliance with the Sewer Extension Permit and the approved On-Site Wastewater Collection System Plans. Said letter shall specify if the certification of completion issued by the engineer is a final or partial certification and shall include the number of the Sewer Extension Permit issued by DWR. Developer, at Developer's cost and expense, shall require its engineer to supply Utility with an electronic copy of engineering record drawings of the On-Site Wastewater Collection System ("As-built Drawings"). The electronic version of the As-built Drawings shall be submitted to Utility in '.dwg' format and shall also include, two spatial references. The signed and sealed copy of the As-built Drawings shall be submitted to Utility in '.pdf' format and shall depict the seal of the professional engineer responsible for issuing the As-built Drawings.

5. **Design, Permitting, and Installation of ESA Wastewater Collection System.**

5.1. Design and Permit Requirements. For each ESA Wastewater Collection Phase, Developer, or Developer's designee, at no cost and expense to Utility, shall (i) engage a qualified, licensed engineer to prepare the Wastewater Collection System Plans and a Sewer Extension Permit; (ii) obtain Utility's approval of the ESA Wastewater Collection System Plans, such approval not to be unreasonably withheld, conditioned or delayed; (iii) file a Sewer Extension Permit application with DWR; and (iv) if required, seek the County's approval of the ESA Wastewater Collection System Plans. Utility shall cooperate fully with Developer and Developer's, or Developer designee's, engineer to expedite issuance of the Sewer Extension Permit by DWR (including by providing Developer, or Developer's designee, with written confirmation that Utility has allocated 6,300 GPD of capacity in the expanded Majestic Oaks Wastewater Facilities to the ESA) and approval by the County of the ESA Wastewater Collection System Plans, if required.

5.2. Installation Requirements. Developer, or Developer's designee, at no cost or expense to Utility, shall cause to be installed in the ESA, a complete ESA Wastewater Collection System, which shall include interconnection of such system to the Off-Site Pump

Station. Utility reserves the right to make periodic inspections of the ESA Wastewater Collection System's installation; provided, however, that such inspection should not be considered a substitute for the engineer's duties and responsibilities to inspect the installation. Developer, or Developer's designee, shall pay for the installation costs of all the necessary components of the ESA Wastewater Collection System to provide wastewater utility service to all lots in the ESA. The ESA Wastewater Collection System shall be constructed in such a manner as to restrict entry of groundwater and surface waters into the ESA Wastewater Collection System to at least the minimum standards established by the DWR regulations for infiltration/inflow. Developer, or Developer's designee, acknowledges that failure to install a "tight" collection system could result in infiltration/inflow causing the WWTP to exceed its permitted flow limit, which could limit the number of connections that can be served by the Utility.

5.3. ESA Wastewater Service Line. Developer, or Developer's designee shall provide a ESA Wastewater Service Line to each house within the ESA. This ESA Wastewater Service Line shall consist of a 4" wastewater service tap, a service pipe of adequate size to serve the residence, a clean out at the easement or right of way line, and an elder valve. Developer, or Developer's designee, shall use its best efforts to ensure that its employees, contractors and subcontractors under its control do not break, damage or bury these cleanouts.

5.4. ESA Wastewater Collection System Contractors and Construction Guarantee. Prior to the commencement of work on the ESA Wastewater Collection System, Developer, or Developer's designee, shall obtain Utility's approval of all contractors and subcontractors who will perform work on the installation of the ESA Wastewater Collection System including, but not limited to, ESA Wastewater Service Lines. Developer, or Developer's designee's, contractor shall provide to Utility a one-year warranty on all ESA Wastewater Collection System components and workmanship. This warranty shall begin from the date of Closing.

5.5. Engineering Certification of Completion & Record Drawings. Developer, or Developer's designee, at no cost or expense to Utility, shall require its engineer to furnish DWR and Utility with a signed and sealed copy of the DWR-required letter from Developer, or Developer's designee's, engineer certifying that the ESA Wastewater Collection System has been installed in compliance with the Sewer Extension Permit and the approved ESA Wastewater Collection System Plans. Said letter shall specify if the certification of completion issued by the engineer is a final or partial certification and shall include the number of the Sewer Extension Permit issued by DWR. Developer, or Developer's designee, at no cost or expense to Utility, shall require its engineer to supply Utility with an electronic copy of engineering record drawings of the ESA Wastewater Collection System ("As-built Drawings"). The electronic version of the As-built Drawings shall be submitted to Utility in '.dwg' format and shall also include, two spatial references. The signed and sealed copy of the As-built Drawings shall be submitted to Utility in '.pdf' format and shall depict the seal of the professional engineer responsible for issuing the As-built Drawings.

6. Design, Permitting, and Installation of Off-Site Wastewater Collection System.

6.1. Design and Permit Requirements. For the Off-Site Wastewater Collection System, ONSWC, at ONSWC's cost and expense, shall (i) engage a qualified, licensed engineer to prepare the Off-Site Wastewater Collection System Plans and a Sewer Extension Permit; (ii) obtain Developer's approval of the Off-Site Wastewater Collection System Plans, such approval not to be unreasonably withheld, conditioned or delayed; (iii) file a Sewer Extension Permit application with DWR and obtain approval prior to March 31, 2019; and (iv) if required, seek the County's approval of the Off-Site Wastewater Collection System Plans. Developer shall support and cooperate fully with ONSWC and ONSWC's engineer to expedite issuance of the Sewer Extension Permit by DWR and approval by the County of the Off-Site Wastewater Collection System Plans and Majestic Oaks Wastewater Facility Expansion, if required.

6.2. Installation Requirements. Developer, at Developer's cost and expense, shall cause to be installed a complete Off-Site Wastewater Collection System, which shall include interconnection of such system to the Majestic Oaks Wastewater Facility. ONSWC shall pay for the cost of upsizing the portion of the forcemain that will be upsized from 4" to 6" and the cost of installing the 6"x4"x3" tee in or around the intersection of Factory Rd and Second St. Utility reserves the right to make periodic inspections of the Off-Site Wastewater Collection System's installation. Developer shall pay for the installation costs of all the necessary components of the Off-Site Wastewater Collection System to provide wastewater utility service to all lots in the Subdivision. The Off-Site Wastewater Collection System shall be constructed prior to August 30, 2019 and constructed in such a manner as to restrict entry of groundwater and surface waters into the Wastewater Collection System to at least the minimum standards established by the DWR regulations for infiltration/inflow. Developer acknowledges that failure to install a "tight" collection system could result in infiltration/inflow causing the WWTP to exceed its permitted flow limit, which could limit the number of connections that can be served by the Utility.

6.3. Off-Site Wastewater Collection System Contractors and Construction Guarantee. Prior to the commencement of work on the Off-Site Wastewater Collection System, Developer shall obtain Utility's approval of all contractors and subcontractors who will perform work on the installation of the Off-Site Wastewater Collection System including, but not limited to, Off-Site Wastewater Service Lines. Developer or Developer's contractor shall provide to Utility a one-year warranty on all Off-site Wastewater Collection System components and workmanship. This warranty shall begin from the date of Closing.

6.4. Engineering Certification of Completion & Record Drawings. ONSWC, at ONSWC's cost and expense, shall require its engineer to furnish DWR and Developer with a signed and sealed copy of the DWR-required letter from ONSWC's engineer certifying that the Off-site Wastewater Collection System has been installed in compliance with the Sewer Extension Permit and the approved Off-Site Wastewater Collection System Plans. Said letter shall specify if the certification of completion issued by the engineer is a final or partial certification and shall include the number of the Sewer Extension Permit issued by DWR.

7. Design, Permitting, and Installation of Expanded Majestic Oaks Wastewater Treatment Facility.

7.1. **Design and Permit Requirements.** For the expansion of the Majestic Oaks Wastewater Treatment Facility, ONSWC, at ONSWC's cost and expense, shall (i) engage a qualified, licensed engineer to design and permit the expansion of the Majestic Oaks Wastewater Facility; (ii) obtain Developer's approval of the expansion Plans, such approval not to be unreasonably withheld, conditioned or delayed; (iii) file a Permit application with DEQ and obtain a permit by February 28, 2019; and (iv) if required, seek the County's approval of the expanded Majestic Oaks Wastewater Facility Plans. Developer shall support and cooperate fully with ONSWC and ONSWC's engineer to expedite issuance of the Permit by DEQ and approval by the County of the Majestic Oaks Wastewater Facility Expansion, if required.

7.2. **Installation Requirements.** ONSWC, at ONSWC's cost and expense, shall cause to be constructed an expansion of the Majestic Oaks Wastewater Facility sufficient to treat a minimum of 200,000 gpd. Prior to Monthly Average Daily Flows exceeding 70% of capacity on an annual average basis, Utility shall begin construction of the expansion of the Majestic Oaks Wastewater Treatment System. Estimated timeframe for construction of said expansion shall take no more than one hundred twenty (120) days.

8. **Certificate of Public Convenience and Necessity.** Following issuance of the Sewer Extension Permit by DWR, Utility, at Utility's cost and expense, shall apply to the Commission as soon as may be practicable for a Certificate or for a Certificate Extension to provide wastewater service to the Subdivision.

9. **Wastewater Service to Subdivision.** Upon Closing of the conveyance by Developer to Utility of the Wastewater Collection System Assets for a Wastewater Collection System Phase, Utility shall supply wastewater utility service to the residents of the applicable phase of the Subdivision under the terms of such Certificate, as the same may be amended from time to time. Utility shall be obligated to reserve sufficient capacity in its expanded Majestic Oaks Wastewater facilities to serve the proposed 308 residential units of wastewater flow from the Salters Haven at Lea Marina Subdivision and the 30 residential units of wastewater flow from the Extended Service Area and shall maintain sufficient capacity in the Majestic Oaks Wastewater Facilities for that purpose.

10. **Monthly Wastewater Rates and Fees.** Utility shall seek approval from the Commission and diligently pursue for rates and fees for wastewater service to the Subdivision that are the same as its current Commission-approved wastewater rates and fees for Utility's Majestic Oaks Subdivision. Upon the granting of the Certificate or Certificate Extension, Utility shall charge for wastewater service to each resident within the Subdivision.

11. **Connection Fee.** Developer acknowledges that each residential unit within the subdivision shall pay Utility a one-time connection fee of \$4,200/SFRE for each lot to be served by the applicable On-Site Wastewater Collection System Phase and that each unit within the ESA shall pay Utility the one-time connection fee applicable prior to permitting of the ESA Wastewater Collection System. Such fee, applicable to the Subdivision, shall be payable prior to the time that Developer or a third-party obtains a building permit for such lot.

12. **Purchase Price.** Utility is purchasing from Developer the completed Wastewater Utility System, regardless of the Wastewater Utility System being installed all at one time or in

phases. The Purchase Price paid by Utility shall be 82% of the actual cost of the Off-Site Wastewater Pump Station and Off-Site Wastewater Forcemain (excluding the cost of upsizing a portion of the forcemain from 4" to 6"). Said Purchase Price payment shall be payable based on 82% of the actual cost of the Off-Site Pump Station and Off-Site Forcemain divided by 150 REUs. ONSWC shall be entitled to collect a Connection Fee in accordance with Paragraph 10. ONSWC shall not be required to make any purchase price payments to the developer for the first 150 connections from the Subdivision. Said Purchase Price payment shall be payable only after the first 150 connections and paid quarterly based on the number of connections installed during the previous quarter. Payments shall be made on or about each January 15, April 15, July 15, and October 15

13. Written Certification of Costs. Developer, at each Closing, shall deliver to Utility a written certification of all of the Developer's costs incurred in the design, permitting and construction of the applicable Wastewater Collection System Phase, which shall provide a breakdown of the various components showing the vendors or contractors for each component (where applicable). Said Written Certification of Costs Form shall be provided at Closing utilizing the form attached hereto as Exhibit 10.

14. Declaration. Utility acknowledges that the Subdivision will be encumbered by a declaration of covenants, conditions, and restrictions (the "Declaration") before or after Closing. Developer acknowledges that the Wastewater Collection System, and any other property owned by Utility in the Subdivision, will be exempt from all assessments, use restrictions, and architectural requirements under the Declaration. Developer shall insert into the Declaration, easement language in favor of Utility which shall allow Utility ingress, egress, regress, and access to operate, maintain, repair and replace the Wastewater Collection System and all components thereof. In addition, Developer shall include language in the Declaration advising the lot owners of their responsibilities for the sewer collection line for their residence pursuant to Section 16.6 and that the wastewater utility service provider is Old North State Water Company.

15. Recorded Subdivision Plats. Developer, at Developer's cost and expense, upon recordation of a plat showing each lot being served by the Wastewater Collection System shall provide Utility with a copy of such recorded plat. Said plat shall include utility and access easements in favor of Utility for ingress, egress, regress and access to operate, maintain, repair, and replace the water mains and appurtenant equipment related to the Wastewater Collection System.

16. Conveyance of the Wastewater Collection System Assets.

16.1. Closing Date. Upon receipt of the Certificate or Certificate Extension described in Section 8 and delivery by Developer to Utility of the last item described in Section 16.8, the Parties shall mutually agree upon a date for the transfer of the Wastewater Collection System Assets, which date shall not be more than 30 days from the date of delivery of the last item described below. Upon Closing, Utility shall be deemed to be the beneficial owner of the Wastewater Collection System Assets. Closing shall take place at a mutually agreed upon location or by telecopy or electronic mail exchange of documents with originals to follow by overnight delivery.

16.2. Conveyance of Wastewater Collection System Assets. At the time and on the terms described in this Section 16, Developer shall convey to Utility at no cost to Utility, except as described in Section 8, Section 16.3 and Section 16.4, by deed, easement, or bill of sale, as appropriate, the Wastewater Collection System Assets and all rights to operate the Wastewater Collection System; provided, however, that the Wastewater Collection System may be constructed in multiple phases and conveyed by Developer to Buyer at multiple Closings. Any bill of sale shall be substantially similar in form and substance to that attached hereto as EXHIBIT 16.2.

16.3. Conveyance of Off-Site Pump Station Lot. The Off-Site Pump Station Lot shall be conveyed by Developer to Utility prior to ONSWC submitting the NC DWR Permit Application by recorded special warranty deed conveying fee simple marketable title. Prior to such conveyance, Developer, at Developer's cost and expense shall have its attorney procure a title insurance commitment in the amount of \$25,000 for the Off-Site Pump Station Lot. The title commitment shall ensure that such property is free and clear of all liens and encumbrances that would unreasonably interfere with the operation of the Off-Site Pump Station. At conveyance, Developer shall present a current final owner's title policy and Utility shall reimburse Developer for the cost of the associated title insurance premiums and up to \$1,000 dollar in attorney fees. Developer shall complete an IRS W-9 Form and deliver such form to Utility prior to the reimbursement required by the preceding sentence. The Off-Site Pump Station Lot shall front upon a publicly dedicated street to provide access to the Off-Site Pump Station. In the event the Off-Site Pump Station lot does not front upon a publicly dedicated completed street, then Developer shall convey to Utility an all-weather gravel access road with a perpetual 20-foot easement for ingress, regress, and access to the Off-Site Pump Station.

16.4. Title Insurance for the Wastewater Collection System Easement Areas. Prior to the Closing on the conveyance of any Wastewater Collection System Easement, Developer, at Developer's cost and expense, shall have its attorney procure a title insurance commitment for the applicable Wastewater Collection System Easement Area, which may be included in the title insurance commitment and policy procured by Developer pursuant to Section 16.3 or combined with title insurance commitments and policies for other Wastewater Collection System Easement Areas. Any single title insurance commitment shall be in an amount of at least \$25,000. The title commitment shall ensure that such property is free and clear of all liens and encumbrances that would unreasonably interfere with Utility's use and enjoyment of the applicable Wastewater Collection System Easement Area. At Closing, Developer shall present to Utility a current final owner's title policy and Utility shall reimburse Developer the title insurance premiums and up to \$1,000 of attorney fees. Developer shall complete an IRS W-9 Form and deliver such form to Utility prior to the reimbursement required by the preceding sentence.

16.5. Surveys for Off-Site Pump Stations Lot and Wastewater Collection System Easement Areas. At the applicable Closing, Developer shall provide a current survey for the Off-Site Pump Station Lot and the Wastewater Collection System Easement Areas. The surveys shall be signed and sealed by a registered surveyor.

16.6. Responsibilities for Grinder Pump Station and Service Lines. If applicable, installation and start up of the Grinder Pump Station shall be conducted in accordance with ONSWC's standard for Grinder Pump Station installation. After the completed initial

installation of a Grinder Pump Station by the homebuilder or WLI Investments, LLC, the lot owner shall own, operate, maintain, repair and replace the components of its Grinder Pump Station with oversight provided by ONSWC. ONSWC shall own, operate, maintain, repair and replace the Service Lines. The electric service for the Grinder Pump Stations shall be provided by each customer as part of their household electric service. WLI Investments, LLC shall require the home builder for each lot served by a Grinder Pump Station to provide notification that the lot is served by a Grinder Pump Station, along with ONSWC's requirements for the operation, maintenance, inspection, repair and replacement of the Grinder Pump Station. The notification shall inform the lot owner of their responsibilities related to the Grinder Pump Station. NEITHER ONSWC NOR WLI INVESTMENTS, LLC SHALL HAVE ANY RESPONSIBILITY OR LIABILITY WHATSOEVER SHOULD A PORTABLE GENERATOR DURING A POWER OUTAGE NOT BE CONNECTED TO THE GRINDER PUMP STATION TO KEEP IT FROM OVERFLOWING OR BACKING UP.

16.7. Closing Conditions. Utility shall not be obligated to close on the acquisition of any Wastewater Collections System Phase until all of the following events below have occurred:

- a. DWR has issued the Sewer Extension Permit for the applicable Wastewater Collection System Phase;
- b. Developer has installed the applicable Wastewater Collection System Phase in accordance with the Sewer Extension Permit and the approved Wastewater Collection System Plans; and
- c. The Commission has issued the Certificate or Certificate Extension.

16.8. Pre-Closing Deliveries of Developer. Prior to Closing Developer shall deliver to Utility for the applicable Wastewater Collection System Phase:

- a. a copy of the DWR required letter from Developer's engineer certifying that the Wastewater Collection System Phase has been installed in compliance with the Sewer Extension Permit and the approved Wastewater Collection System Plans as described in Section 4.5 and 5.5;
- b. an electronic copy of the As-built Drawings prepared by the engineer of record for the project. The electronic version of the As-built Drawings shall be submitted to Utility in '.dwg' format and the signed and sealed copy shall be submitted to Utility in '.pdf' format as required by Section 4.5 and 5.5;
- c. a completed written certification of Developer's costs as required by in Section 13;
- d. a copy of the recorded Declaration as required by Section 14;

e. the title insurance commitments for the Off-Site Pump Station Lot and the Wastewater Collection System Easement Areas, as required by Section 16.3 and Section 16.4, respectively;

f. a current survey for the Off-Site Pump Station Lot and the Wastewater Collection System Easement Areas as required by Section 16.5;

g. a list of physical addresses and lot numbers for each lot in the Subdivision that will served by the Wastewater Collection System in a form substantially similar in a substance to that attached hereto as EXHIBIT 16.8.g.

16.9. Closing Deliveries of Developer. At Closing for the applicable Wastewater Collection System Phase, Developer shall furnish Utility with:

a. a one-year construction warranty on all Wastewater Collection System components and workmanship as required by Section 4.4 and 5.4;

b. the executed bill of sale, recorded deed, and/or easements for the applicable Water Collection System Assets, as set required by Section 16.2;

c. a final owner's title insurance policy as required Section 16.3 and/or Section 16.4.

16.10. Closing Requirements of Utility. Upon Closing Utility shall (i) reimburse Developer for the title insurance premiums as required Section 16.3 and/or Section 16.4, and (ii) begin operation of the Wastewater Collection System.

17. Property Taxes. Utility shall not be responsible for payment of property taxes on any property with respect to which title is not conveyed to Utility. Utility shall only be responsible for the payment of property taxes which it owns.

General Provisions.

17.1. Execution of Future Agreements. After the execution of this Agreement, all new development agreements entered into by Developer with respect to development at the Subdivision shall be consistent with the terms of this Agreement with respect to the provision of wastewater utility service to the Subdivision.

17.2. Representations, Warranties, Covenants and Agreements Survive Closing. All representations and warranties of Developer and Utility hereunder shall survive each Closing. Further, any covenant or agreement herein which contemplates performance after the time of any Closing shall not be deemed to be merged into or waived by the instruments delivered in connection with such Closing, but shall expressly survive such Closing and be binding upon the Parties obligated thereby.

17.3. Binding upon Successors and Assigns. This Agreement shall be binding upon and shall inure to the benefit of Developer and Utility, and the successors and assigns of each.

17.4. 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 or equitable right, remedy or claim under or with respect to this Agreement or any provision of this Agreement, except such rights as shall inure to a successor or permitted assignee pursuant to Section 17.3 above.

17.5. Independent Contractors. The Parties are and shall be independent contractors to one another, and nothing herein shall be deemed to cause this Agreement to create an agency, partnership, or joint venture between the Parties.

17.6. Counterparts. This Agreement may be executed in one or more counterpart signature pages (including facsimile or electronic counterpart signature pages), each of which will be deemed to be an original of this Agreement and all of which, when taken together, will be deemed to constitute one and the same agreement.

17.7. Headings. The headings of particular provisions of this Agreement are inserted for convenience only and shall not be construed as a part of this Agreement or serve as a limitation or expansion on the scope of any term or provision of this Agreement.

17.8. Enforcement of Agreement. Each Party acknowledges and agrees that the other Party would be irreparably damaged if any of the provisions of this Agreement are not performed in accordance with their specific terms and that any breach of this Agreement by a Party could not be adequately compensated in all cases by monetary damages alone. Accordingly, in addition to any other right or remedy to which a Party may be entitled, at law or in equity, it shall be entitled to enforce any provision of this Agreement by a decree of specific performance and to temporary, preliminary and permanent injunctive relief to prevent any breach or threatened breach of any of the provisions of this Agreement, without posting any bond or other undertaking.

17.9. Waiver. No waivers of, or exceptions to, any term, condition or provision of this Agreement, in any instance or instances, shall be deemed to be, or construed as, a further or continuing waiver of any such term, condition or provision.

17.10. Entire Agreement. 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.

17.11. Modifications 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. By mutual written agreement additional lots may be added to this Agreement.

17.12. 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, whether such controversies sound in tort law, contract law or otherwise. 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.

17.13. Governing Law. This Agreement shall be governed by the internal substantive laws of the State of North Carolina, without regard to such state's conflict of law or choice of law rules.

17.14. Notices. All notices and other communications required or permitted hereunder shall be in writing and shall be sent either (i) personally by hand delivery, (ii) by registered or certified United States first-class mail, postage prepaid, return receipt requested, (iii) by nationally recognized overnight courier, or (iv) by facsimile addressed to the address or facsimile number indicated below (or at such other address or facsimile number as such Party or permitted assignee shall have furnished to the other Parties hereto in writing). All such notices and other written communications shall be effective on the date of delivery.

If to Developer, such notice shall be addressed to:

WLI Investments, LLC
 Address: 600 Gregory Road, Steel Belville, NC 28451
 Attn: D Logan
 Telephone: 910-332-3524
 Facsimile: _____

If to Utility, such notice shall be addressed to:

Old North State Water Company, LLC
 4700 Homewood Ct., Suite 108
 Raleigh, North Carolina 27609
 Telephone: (252) 235-4900
 Facsimile: (252) _____


With copies to:

John McDonald
 Integra Water, LLC
 600 University Park Place, Suite 275
 101 Birmingham, AL 35209
 Telephone: (205) 326-3200

Karen Kemerait, Esq.
 Fox Rothschild, LLP
 434 Fayetteville St. #1223
 Raleigh, NC 27601
 Telephone: (919) 819-7952
 Facsimile: (919) 755-8800

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

WLI Investments, LLC


By: D I Logan, Manager

OLD NORTH STATE WATER COMPANY, LLC.


By: Michael Myers, Manager

OFFICIAL COPY

Oct 03 2022

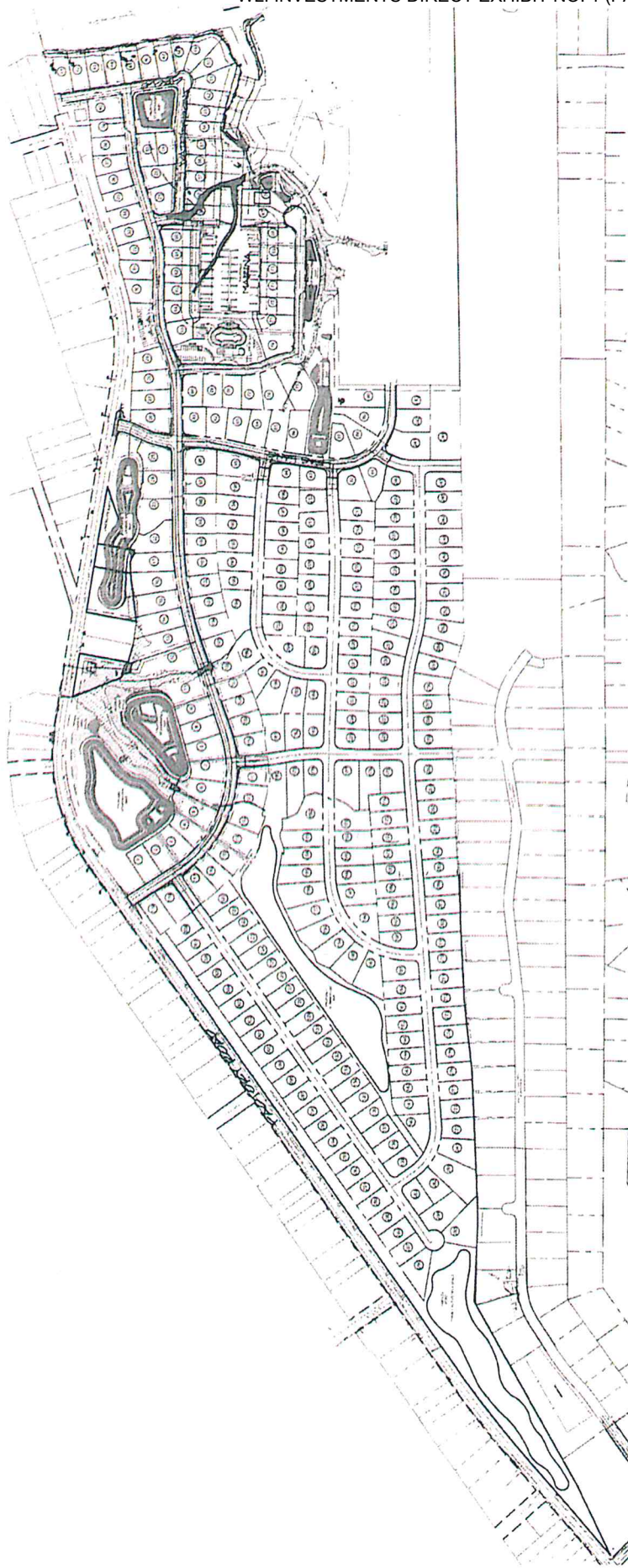
EXHIBIT 1

Conceptual Land Plan -- Lea Property

OFFICIAL COPY

Oct 03 2022

Phase 1		Phase 2	
Year	Age	Year	Age
1970	10	1970	10
1971	11	1971	11
1972	12	1972	12
1973	13	1973	13
1974	14	1974	14
1975	15	1975	15
1976	16	1976	16
1977	17	1977	17
1978	18	1978	18
1979	19	1979	19
1980	20	1980	20
1981	21	1981	21
1982	22	1982	22
1983	23	1983	23
1984	24	1984	24
1985	25	1985	25
1986	26	1986	26
1987	27	1987	27
1988	28	1988	28
1989	29	1989	29
1990	30	1990	30
1991	31	1991	31
1992	32	1992	32
1993	33	1993	33
1994	34	1994	34
1995	35	1995	35
1996	36	1996	36
1997	37	1997	37
1998	38	1998	38
1999	39	1999	39
2000	40	2000	40
2001	41	2001	41
2002	42	2002	42
2003	43	2003	43
2004	44	2004	44
2005	45	2005	45
2006	46	2006	46
2007	47	2007	47
2008	48	2008	48
2009	49	2009	49
2010	50	2010	50
2011	51	2011	51
2012	52	2012	52
2013	53	2013	53
2014	54	2014	54
2015	55	2015	55
2016	56	2016	56
2017	57	2017	57
2018	58	2018	58
2019	59	2019	59
2020	60	2020	60
2021	61	2021	61
2022	62	2022	62
2023	63	2023	63
2024	64	2024	64
2025	65	2025	65
2026	66	2026	66
2027	67	2027	67
2028	68	2028	68
2029	69	2029	69
2030	70	2030	70
2031	71	2031	71
2032	72	2032	72
2033	73	2033	73
2034	74	2034	74
2035	75	2035	75
2036	76	2036	76
2037	77	2037	77
2038	78	2038	78
2039	79	2039	79
2040	80	2040	80
2041	81	2041	81
2042	82	2042	82
2043	83	2043	83
2044	84	2044	84
2045	85	2045	85
2046	86	2046	86
2047	87	2047	87
2048	88	2048	88
2049	89	2049	89
2050	90	2050	90
2051	91	2051	91
2052	92	2052	92
2053	93	2053	93
2054	94	2054	94
2055	95	2055	95
2056	96	2056	96
2057	97	2057	97
2058	98	2058	98
2059	99	2059	99
2060	100	2060	100



Date: 17 December 2016
Scale: 1" = 200' At 24" x 36"

North

0° 100' 200' 300' 400'

Prepared By: **PARAMOUNT**
CCT - County of Travis
Bureau of Surveying
15000 Park Road, Suite 200, Austin, TX 78758
Tel: 512.478.2100 Fax: 512.478.2101

Date: 12 December 2018
Scale: 1" = 200' At 24" x 36"

Plummary: Netter Construction - This was a graphic representation and should be utilized for discussion purposes only. This was plain announcements stating conditions relating to encroachments, roads, parking, vegetation and property boundaries. Plain comments may change based upon regulatory and municipal regulation and requirements at the time of approvals and/or development activity.

Lot Typology Exhibit
Salters Haven at Lea
Hampstead, North Carolina

EXHIBIT 10Written Certification of Costs Form
Wastewater

Date: _____

Following is the information you requested for the Wastewater Collection System serving Salters Haven at Lea Marina Subdivision. This cost certification is for the assets of the Wastewater Collection System serving a total of 308 connections in the Subdivision.

QTY	UOM	DESCRIPTION	Vendor/Contractor	Total Invoiced Cost
	LS	Engineering		
	LF	Sewer Mains – “ ” (force, gravity, low pressure)		
	LF	Sewer Mains – “ ” (force, gravity, low pressure)		
	LF	Sewer Services		
	EA	Value of Deeded Pump Station Lot @\$500/each t		
		TOTALS		

I certify the above represents the actual cost for installation of the Wastewater Collection System serving the Subdivision.

Signature_____
Printed Name

EXHIBIT 15.2

STATE OF NORTH CAROLINA
COUNTY OF PENDER

**WASTEWATER UTILITY SYSTEM
BILL OF SALE**

KNOW ALL MEN BY THESE PRESENTS that WLI Investments, LLC (Seller), in return or 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, all right, title and interest of the Seller in and to the Wastewater Collection System for Salters Haven at Lea Marina Subdivision, Pender County, North Carolina, including but not limited to collection mains, manholes, services, controls, force mains, lift station lot, valves, and all equipment appurtenant to the sewer collection system needed to serve approximately _____ single family residential houses, all property conveyed hereby being referred to as the "Property."

This Bill of Sale is without any warranty of any kind and ALL WARRANTIES ARE SPECIFICALLY DISCLAIMED HEREBY, except for that certain one (1) year warranty provided by Seller to Buyer by separate document dated as of the date below. To have and to hold the Property in fee simple.

IN TESTIMONY WHEREOF, the Seller has hereunto set his hand this the _____ day of _____ 2018.

Title

Oct 03 2022

LEA PROPERTY
PENDER COUNTY, NORTH CAROLINA
LOW PRESSURE SEWER DESIGN NARRATIVE

Prepared for:

WLI INVESTMENTS, LLC
60 GREGORY ROAD, SUITE 1
BELVILLE, BRUNSWICK COUNTY
NORTH CAROLINA 28451

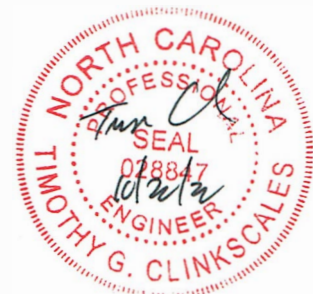
Prepared by:

PARAMOUNT
ENGINEERING, INC.

122 Cinema Drive
Wilmington, NC 28403

Project #16381.PE

October 2020



PROJECT NARRATIVE

The subject property for which this low-pressure sewer analysis applies is located within the Salters Haven at Lea Marina neighborhood in Pender County, NC. According to the latest FEMA flood panels a portion of the property is within the flood plain (Zone AE: EL. 12), and according to USGS the property drains to Topsail Sound (SA, ORW 18-87-11.7).

WLI Investments, LLC desires to install a low-pressure sewer system to serve a future family subdivision, for this submittal we are requesting zero flow. Any flow requested for lots, will be provided at a later date. It is proposed that all wastewater will be collected from each unit to individual pump stations, which would then pump by way of low-pressure sewer to the traditional gravity sanitary sewer system within the proposed development (outfall to sanitary sewer manhole(s)).

The low-pressure sewer system for which this proposed development is a part of has been modeled to ensure adequate velocities are present for scour and that the pump stations will be able to perform within their range of typical operating head; please see the Sewer Figure and calculations within this submittal. Provided for in the design of each pump station, is 24 hours' worth of waste water storage above the pump on elevation. In addition, please find on the utility plan sheet a note indicating that all Pump Station Control / Alarm Panels and Vents shall extend at least two feet above the 100-year flood elevation (Zone AE – El. 12.00).



This digital Flood Insurance Rate Map (FIRM) was produced through a unique cooperative partnership between the State of North Carolina and the Federal Emergency Management Agency (FEMA). The State of North Carolina has implemented a long term approach to floodplain management to decrease the costs associated with flooding. This is demonstrated by the State's commitment to map flood hazard areas at the local level. As a part of this effort, the State of North Carolina has joined in a Cooperating Technical State agreement with FEMA to produce and maintain this digital FIRM.

FLOOD HAZARD INFORMATION

SEE FIS REPORT FOR ZONE DESCRIPTIONS AND INDEX MAP
THE INFORMATION DEPICTED ON THIS MAP AND SUPPORTING
DOCUMENTATION ARE ALSO AVAILABLE IN DIGITAL FORMAT AT
[HTTP://FRIS.NC.GOV/FRIS](http://FRIS.NC.GOV/FRIS)

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE)
		With BFE or Depth <i>Zone AE, AO, AH, VE, AR</i>
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% Annual Chance Flood with Average Depth Less Than One Foot or With Drainage Areas of Less Than One Square Mile <i>Zone X</i>
		Future Conditions 1% Annual Chance Flood Hazard <i>Zone X</i>
OTHER AREAS		Area with Reduced Flood Risk due to Levee See Notes <i>Zone X</i>
		Areas Determined to be Outside the 0.2% Annual Chance Floodplain <i>Zone X</i>
GENERAL STRUCTURES		Channel, Culvert, or Storm Sewer Accredited or Provisionally Accredited Levee, Dike, or Floodwall
		Non-accredited Levee, Dike, or Floodwall
OTHER FEATURES		North Carolina Geodetic Survey bench mark
		National Geodetic Survey bench mark
		Contractor Est. NCFMP Survey bench mark
		Cross Sections with 1% Annual Chance Water Surface Elevation (BFE)
		Coastal Transect
		Coastal Transect Baseline
		Profile Baseline
		Hydrographic Feature
		Limit of Study
		Jurisdiction Boundary

NOTES TO USERS

For information and questions about this map, available products associated with this FIRM including historic versions of this FIRM, how to order products or the National Flood Insurance Program in general, please call the FEMA Map Information eXchange at 1-877-FEMA-MAP (1-877-336-2627) or visit the FEMA Map Service Center website at <http://msc.fema.gov>. An accompanying Flood Insurance Study report, Letter of Map Revision (LOMR) or Letter of Map Amendment (LOMA) revising portions of this panel, and digital versions of this FIRM may be available. Visit the North Carolina Floodplain Mapping Program website at <http://www.ncfloodmaps.com> or contact the FEMA Map Service Center.

Communities annexing land on adjacent FIRM panels must obtain a current copy of the adjacent panel as well as the current FIRM Index. These may be ordered directly from the Map Service Center at the number listed above.

For community and countywide map dates refer to the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in the community, contact your Insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

Base map information shown on this FIRM was provided in digital format by the North Carolina Floodplain Mapping Program (NCFMP). The source of this information can be determined from the metadata available in the digital FLOOD database and in the Technical Support Data Notebook (TSDN).

ACCREDITED LEVEE NOTES TO USERS: If an accredited levee note appears on this panel check with your local community to obtain more information, such as the estimated level of protection provided (which may exceed the 1-percent-annual-chance level) and Emergency Action Plan, on the levee system(s) shown as providing protection. To mitigate flood risk in residual risk areas, property owners and residents are encouraged to consider flood insurance and floodproofing or other protective measures. For more information on flood insurance, interested parties should visit the FEMA Website at <http://www.fema.gov/business/nfip/index.shtm>.

PROVISIONALLY ACCREDITED LEVEE NOTES TO USERS: If a Provisionally Accredited Levee (PAL) note appears on this panel, check with your local community to obtain more information, such as the estimated level of protection provided (which may exceed the 1-percent-annual-chance level) and Emergency Action Plan, on the levee system(s) shown as providing protection. To maintain accreditation, the levee owner or community is required to submit the data and documentation necessary to comply with Section 65.10 of the NFIP regulations. If the community or owner does not provide the necessary data and documentation or if the data and documentation provided indicates the levee system does not comply with Section 65.10 requirements, FEMA will revise the flood hazard and risk information for this area to reflect de-accreditation of the levee system. To mitigate flood risk in residual risk areas, property owners and residents are encouraged to consider flood insurance and floodproofing or other protective measures. For more information on flood insurance, interested parties should visit the FEMA Website at <http://www.fema.gov/business/nfip/index.shtm>.

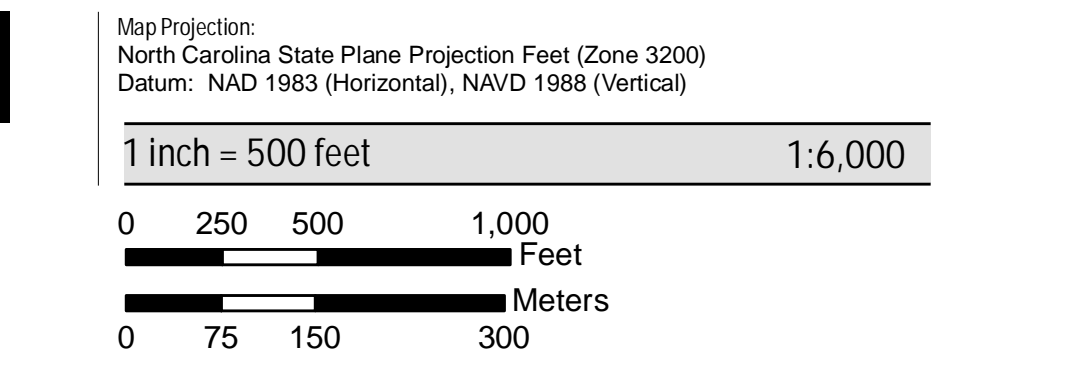
LIMIT OF MODERATE WAVE ACTION NOTES TO USERS: For some coastal flooding zones the AE Zone category has been divided by a Limit of Moderate Wave Action (LIMWA). The LIMWA represents the approximate landward limit of the 1.5-foot breaking wave. The effects of wave hazards between the VE Zone and the LIMWA (or between the shoreline and the LIMWA for areas where VE Zones are not identified) will be similar to, but less severe than those in the VE Zone.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) NOTE

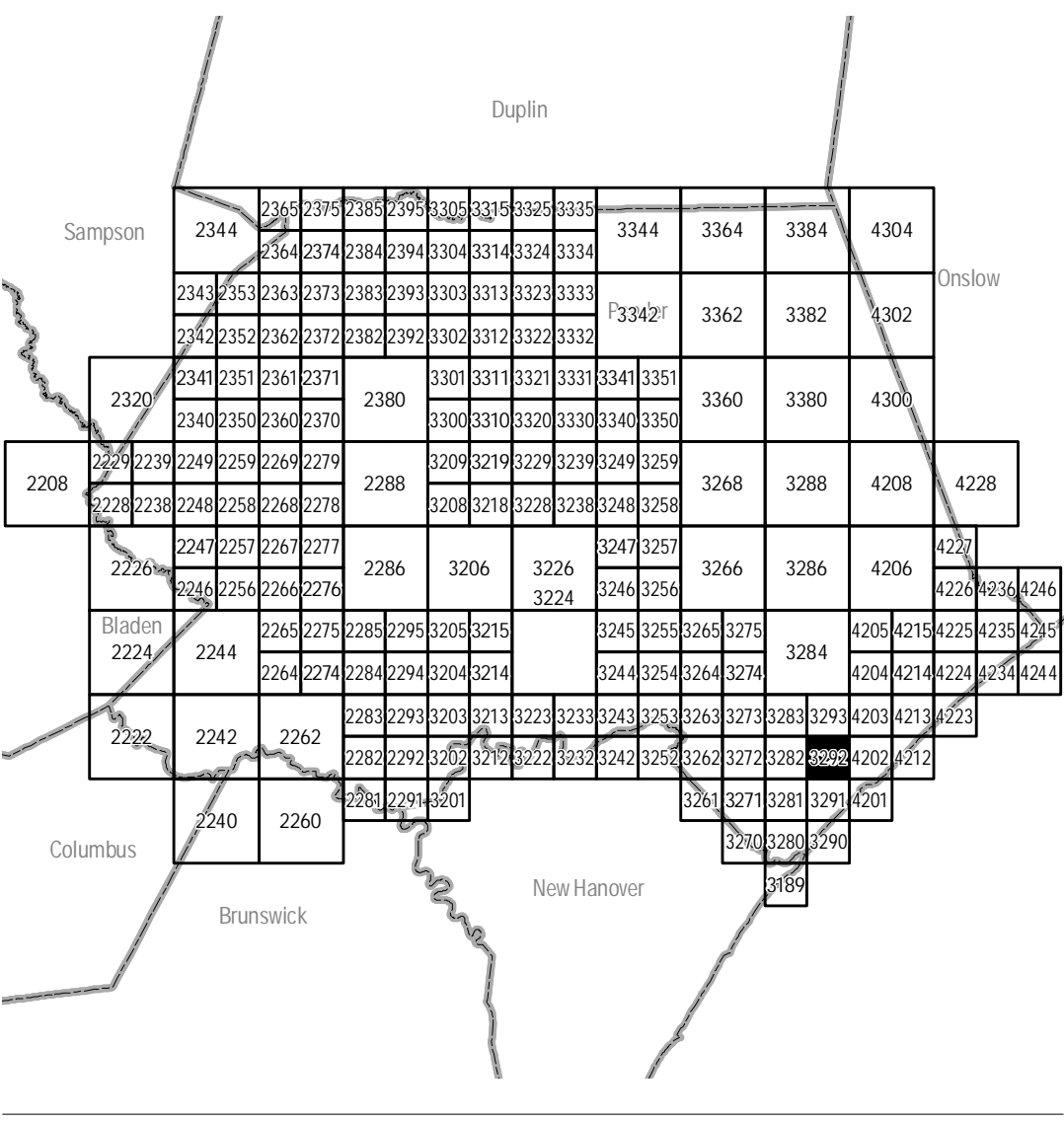
This map may include approximate boundaries of the CBRS for informational purposes only. Flood insurance is not available within CBRS areas for structures that are newly built or substantially improved on or after the date(s) indicated on the map. For more information see http://www.fws.gov/habitatconservation/coastal_barrier.html, the FIS Report, or call the U.S. Fish and Wildlife Service Customer Service Center at 1-800-344-WILD.

CBRS Area Otherwise Protected Area

SCALE



PANEL LOCATOR



National Flood Insurance Program

NORTH CAROLINA FLOODPLAIN MAPPING PROGRAM
NATIONAL FLOOD INSURANCE PROGRAM
FLOOD INSURANCE RATE MAP

NORTH CAROLINA

PANEL 3292

Panel Contains:

COMMUNITY	CID	PANEL	SUFFIX
PENDER COUNTY	370344	3292	J

MAP NUMBER
3720329200J
EFFECTIVE DATE
2/16/2007



Project Name: Salters Haven at Lea Marina
 Client: D. Logan
 Project Number: 16381.PE
 Prepared By: CWM
 Date: 1/25/19

PUMP STATION ANTI-FLOATATION CALCULATIONS

Physical Constants

Density of Water = 62.4 lbs/cf
 Density of Concrete (In Air) = 150 lbs/cf
 Density of Saturated Soil * = 47.6 lbs/cf

*Unit weight of saturated soil per DWQ policy

Concrete Wet-Well Information

Depth of Station (to slab) 6.67 ft 80 in
 Outside Diameter of Wet-well 3.83 ft 46 in
 Top Slab Thickness 0.33 ft 4 in
 Bottom Slab Thickness 0.67 ft 8 in

Concrete Slab Information

Concrete Slab Thickness = 1 ft 12 in
 Outside Slab Diameter = 5.33 ft 64 in

Buoyant Force

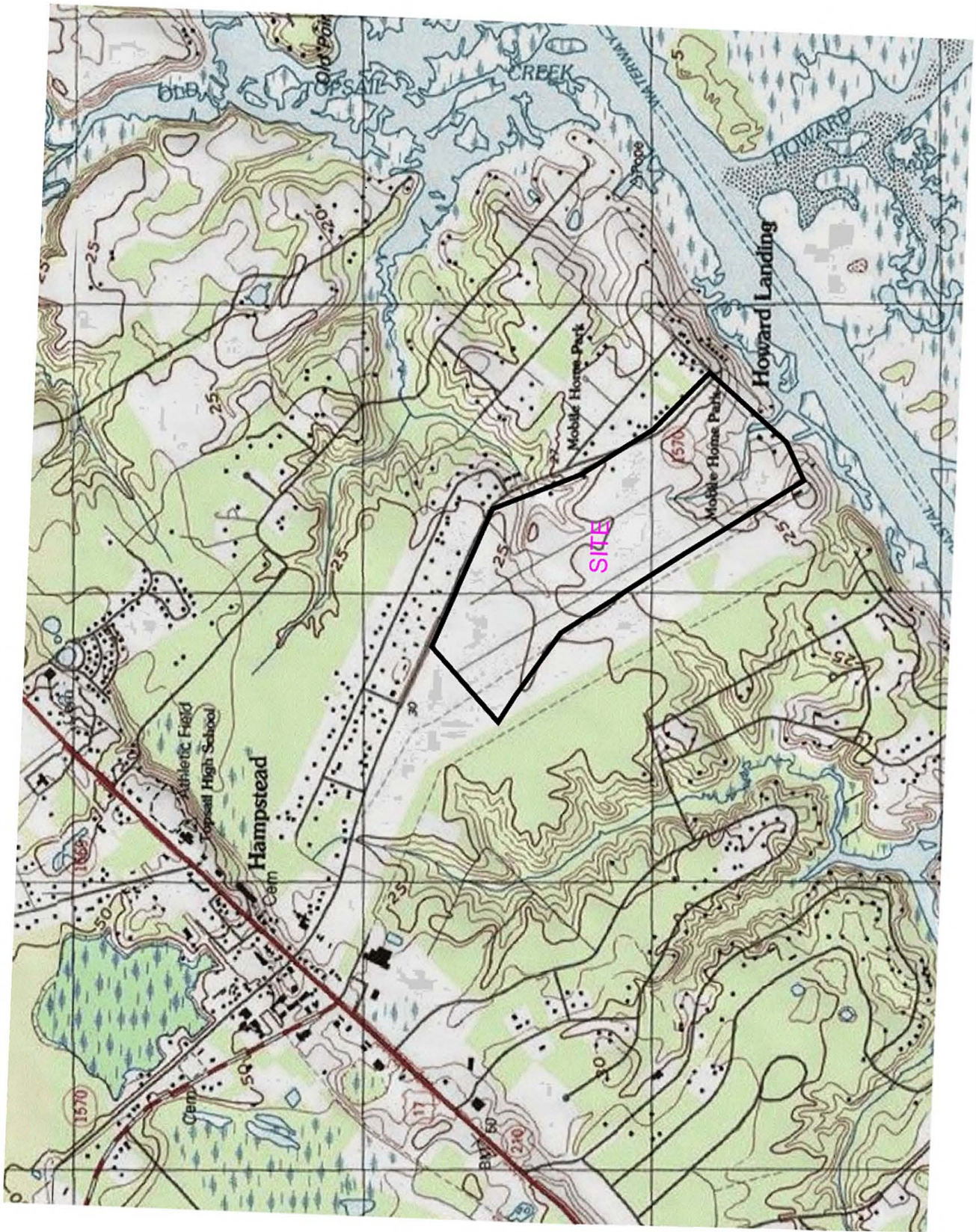
Station Volume = 99 cf
 Buoyant Force = 6,187 lbs

Concrete Ballast Force

Bottom Slab Conc. Volume = 15 cf
 Top Slab Conc. Volume = 4 cf
 Soil Column Volume = 72 cf
 Ballast Force = 6,197 lbs

FNet = 10 lbs

Okay: Ballast Size is adequate

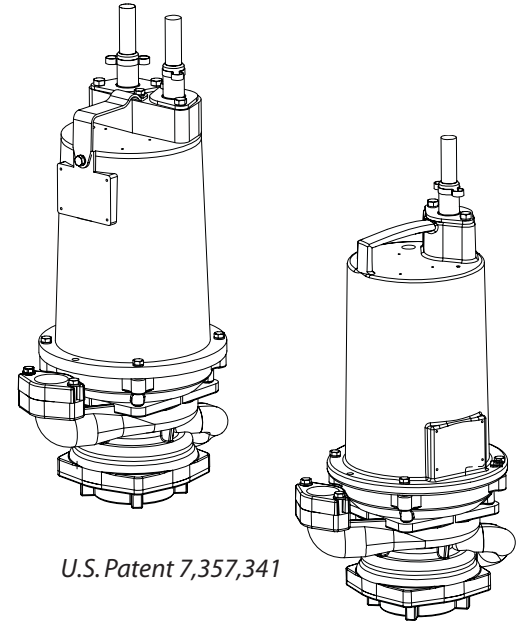


Submersible Grinder Pumps

OFFICIAL COPY
Oct-03-2022

Specifications:

DISCHARGE	.....1¼" NPT, Vertical, Bolt-on Flange
LIQUID TEMPERATURE	.....104°F (40°C) Continuous
VOLUTE	.....Cast Iron ASTM A-48, Class 30
MOTOR HOUSING	.....Cast Iron ASTM A-48, Class 30
SEAL PLATE	.....Cast Iron ASTM A-48, Class 30
IMPELLERS: Design	.....12 Vane,Vortex, With Pump Out Vanes On Back Side. Dynamically Balanced,
	ISO G6.3.
	Material .....85-5-5-5 Bronze
IMPELLER SPACER	.....300 Series Stainless Steel
SHREDDING RING	.....Hardened 440C Stainless Steel Rockwell® C-55.
CUTTER	.....Hardened 440CStainless Steel, Rockwell® C-55.
SHAFT	.....416 Stainless Steel
SQUARE RINGS	.....Buna-N
HARDWARE	.....300 Series Stainless Steel
PAINT	.....Air Dry Enamel.
SEAL:	Design .....Single Mechanical
	Material .....Rotating Faces - Silicon-Carbide Stationary Faces - Silicon-Carbide Elastomer - Buna-N Hardware - 300 Series Stainless
CORD ENTRY	.....30 ft. (9.1m) Std. Cord. Custom Molded Quick Connect, for Sealing and Strain Relief
CORD	Manual .....CSA/UL Approved 12/3 Type SOW
	Automatic.....CSA/UL Approved 12/5 Type SOW
UPPER BEARING:	
	Design .....Single Row, Angular contact Ball
	Lubrication .....Oil
	Load .....Radial & Thrust
LOWER BEARING:	
	Design .....Single Row, Angular contact Ball
	Lubrication .....Oil
	Load .....Radial & Thrust
MOTOR:	Design .....NEMA L-Single Phase Torque Curve, Oil-Filled, Squirrel Cage Induction
	Insulation .....Class F
SINGLE PHASE	.....Capacitor Start/Capacitor Run.
LEVEL CONTROL:	
	L Series.....None
	AUE Series SOLD SEPARATELY (See Accessory Section F page 23) Model ESPS-150, Environmentally sealed pressure switch with CPVC housing, Buna diaphragm, Custom molded quick connect for sealing and strain relief
OPTIONAL EQUIPMENT	.....Cord Length, Moveable Fitting



U.S. Patent 7,357,341

Series: OGP
2HP, 3450RPM, 60Hz

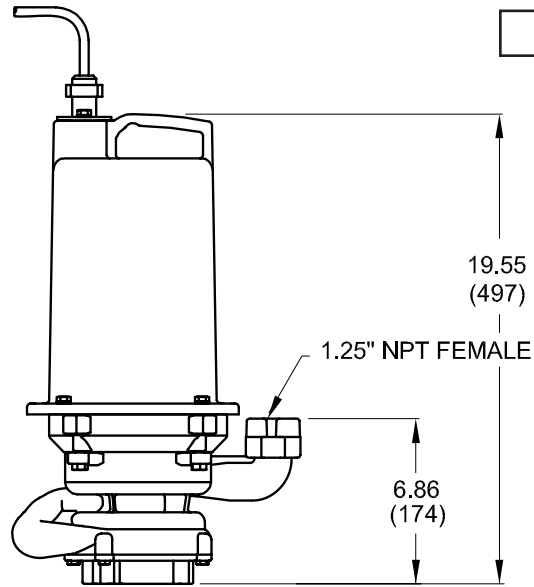


CSA 108 - File No. LR16567
UL 778

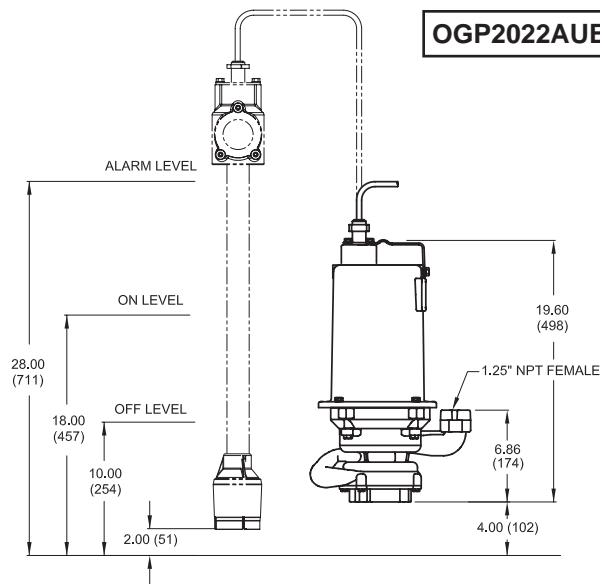
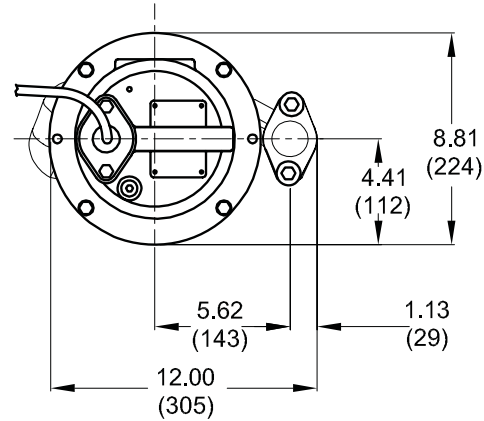
DESCRIPTION:

THE GRINDER PUMP IS DESIGNED TO REDUCE DOMESTIC SEWAGE TO A FINELY GROUND SLURRY.

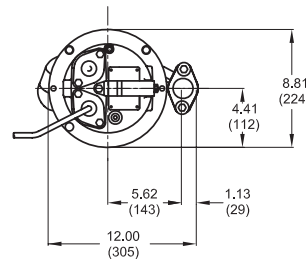
Submersible Grinder Pumps



OGP2022L

inches
(mm)

OGP2022AUE*



MODEL NO	PART NO	HP	VOLT	PH/Hz	RPM (Nom)	NEMA START CODE	FULL LOAD AMPS	LOCKED ROTOR AMPS	CORD SIZE	CORD TYPE	CORD O.D. ± .02 (.5) in (mm)
OGP2022L	115328-M	2	240	1 / 60	3450	H	16.5	53.8	12/3	SOW	.61 (15.5)
OGP2022AUE*	115329-M	2	240	1 / 60	3450	H	16.5	53.8	12/5	SOW	.71 (18)

(*) ESPS Level Control Sold Separately, See Accessory Section F page 23.

IMPORTANT !

- 1.) PUMP MAY BE OPERATED "DRY" FOR EXTENDED PERIODS WITHOUT DAMAGE TO MOTOR AND/OR SEALS.
- 2.) THIS PUMP IS APPROPRIATE FOR THOSE APPLICATIONS SPECIFIED AS CLASS I DIVISION II HAZARDOUS LOCATIONS.
- 3.) THIS PUMP IS NOT APPROPRIATE FOR THOSE APPLICATIONS SPECIFIED AS CLASS I DIVISION I HAZARDOUS LOCATIONS.
- 4.) INSTALLATIONS SUCH AS DECORATIVE FOUNTAINS OR WATER FEATURES PROVIDED FOR VISUAL ENJOYMENT MUST BE INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE ANSI/NFPA 70 AND/OR THE AUTHORITY HAVING JURISDICTION. THIS PUMP IS NOT INTENDED FOR USE IN SWIMMING POOLS, RECREATIONAL WATER PARKS, OR INSTALLATIONS IN WHICH HUMAN CONTACT WITH PUMPED MEDIA IS A COMMON OCCURRENCE.

SECTION A
PAGE 2
DATE 12/18/20

CRANE
®

A Crane Co. Company

PUMPS & SYSTEMS

USA: (937) 778-8947 • Canada: (905) 457-6223 • International: (937) 615-3598

Submersible Grinder Pumps



Testing is performed with water, specific gravity 1.0 @ 68° F @ (20°C), other fluids may vary performance

OFFICIAL COPY

Oct 03 2022

**NORTH CAROLINA UTILITIES COMMISSION
RALEIGH**

Docket No. W-1300, Sub 0 Exceptions Due on or Before January 22, 2013

NOTICE TO PARTIES

Parties to the above proceeding may file exceptions to the report and Recommended Order hereto attached on or before the day above shown as provided in G.S. 62-78. Exceptions, if any, must be filed (original and thirty (30) copies) with the North Carolina Utilities Commission, Raleigh, North Carolina, and a copy thereof mailed or delivered to each party of record, or to the attorney for such party, as shown by appearances noted. Each exception must be numbered and clearly and specifically stated in one paragraph without argument. The grounds for each exception must be stated in one or more paragraphs, immediately following the statement of the exception, and may include any argument, explanation, or citations the party filing same desires to make. In the event exceptions are filed, as herein provided, a time will be fixed for oral argument before the Commission upon the exceptions so filed, and due notice given to all parties of the time so fixed; provided, oral argument will be deemed waived unless written request is made therefor at the time exceptions are filed. If exceptions are not filed, as herein provided, the attached report and recommended decision will become effective and final on January 23, 2013 unless the Commission, upon its own initiative, with notice to parties of record modifies or changes said Order or decision or postpones the effective date thereof.

The report and Recommended Order attached shall be construed as tentative only until the same becomes final in the manner hereinabove set out.

**STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH**

DOCKET NO. W-1300, SUB 0

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of		
Application by Old North State Water Company,	)	RECOMMENDED
LLC, for a Certificate of Public Convenience and	)	ORDER GRANTING
Necessity to Provide Sewer Utility Service in	)	FRANCHISE,
Majestic Oaks Subdivision and Hampstead	)	APPROVING RATES,
Shopping Center in Pender County, North Carolina,	)	AND REQUIRING
and for Approval of Rates.	)	CUSTOMER NOTICE

HEARD IN: North Campus of Cape Fear Community College, Room 336, Third Floor, McKeithan Center, 4500 Blue Clay Road, Castle Hayne, North Carolina, on December 11, 2012, at 7:00 p.m.

BEFORE: Ronald D. Brown, Hearing Examiner

APPEARANCES:

For Old North State Water Company, LLC:

Karen M. Kemerait, Styers, Kemerait & Mitchell, PLLC, 1101 Haynes Street, Suite 101, Raleigh, North Carolina 27604

For the Using and Consuming Public:

William E. Grantmyre, Staff Attorney, Public Staff-North Carolina Utilities Commission, 4326 Mail Service Center, Raleigh, North Carolina 27699-4326

BROWN, HEARING EXAMINER On January 12, 2012, Old North State Water Company, LLC (ONSWC) filed an application for a certificate of public convenience and necessity (CPCN) to provide wastewater utility service and approval of rates for the Majestic Oaks Subdivision and Hampstead Shopping Center in Pender County, North Carolina. Pender County provides the water service to the Majestic Oaks Subdivision. Hampstead Shopping Center is provided water from a private well.

On September 13, 2012, ONSWC filed an amended application for a CPCN to provide wastewater utility service and approval of rates for the Majestic Oaks Subdivision and Hampstead Shopping Center. The amended application included a request for issuance of temporary operating authority and interim rates.

On November 6, 2012, ONSWC filed an irrevocable letter of credit (LOC) in the amount of \$20,000.00. Thereafter, on November 19, 2012, ONSWC filed an amendment to the LOC and a bond.

On November 20, 2012, the Commission issued an Order Granting Temporary Operating Authority, Approving Interim Rates, Scheduling Hearing, and Requiring Customer Notice (Order Granting Temporary Operating Authority). In the Order Granting Temporary Operating Authority, the Commission accepted and approved the bond and surety; granted temporary operating authority to ONSWC; and approved a Schedule of Interim Rates for sewer utility service rendered by ONSWC in the Majestic Oaks Subdivision and Hampstead Shopping Center for service rendered on and after the date of the Order Granting Temporary Operating Authority. Pursuant to the Schedule of Interim Rates, the Commission approved interim flat monthly sewer rates of: \$60.00 for residential service; \$60.00 for non-residential service per residential equivalent unit (REU); and \$1,440.00 for the Hampstead Shopping Center (24 REUs). Also pursuant to the Schedule of Interim Rates, the Commission approved an interim connection charge of \$4,200.00 per REU.

On November 30, 2012, ONSWC filed the Certificate of Service, indicating that customer notice had been provided in accordance with the Commission's Order Granting Temporary Operating Authority.

On December 6, 2012, the Public Staff filed testimony of David C. Furr, Utilities Engineer, Water Division of the Public Staff; Affidavit of Windley E. Henry, Staff Accountant, Water Section, Accounting Division of the Public Staff; and Affidavit of Calvin C. Craig, III, Financial Analyst, Economic Research Division of the Public Staff. In his testimony, Mr. Furr recommended that the Commission approve flat monthly sewer rates of \$60.00 for residential service, \$60.00 for non-residential service per REU, and \$840.00 for the Hampstead Shopping Center (14 REUs). Mr. Furr also recommended that the Commission approve a connection charge of \$4,200.00 per REU.

The public hearing was held as scheduled at 7:00 p.m., on December 11, 2012.

Michael John Myers, Member of ONSWC, testified at the public hearing on behalf of ONSWC. Mr. Myers testified that ONSWC is in agreement with the rates and connection charge that Mr. Furr recommended in his Testimony.

Mr. Myers also testified that the Majestic Oaks wastewater utility system has been operating since 2006. The customers at the Majestic Oaks Subdivision and Hampstead Shopping Center had been receiving wastewater service since 2006 at no charge until December 1, 2012, at which time ONSWC began operating the system after receiving temporary operating authority.

Mr. Myers further testified that Hampstead Land Group, LLC (HLG), the developer of the Majestic Oaks Subdivision, had provided ONSWC with a customer list, and that ONSWC had used that customer list to provide customer notice in accordance with the Commission's Order Granting Temporary Operating Authority. After ONSWC filed the Certificate of Service with the Commission on November 30, 2012, HLG supplied ONSWC with an updated customer list. ONSWC compared the initial customer list with the updated customer list, and determined that seven residential customers had been added to the updated customer list and were not included in the initial list. ONSWC hand-delivered customer notice to those seven residences within twenty-four hours of discovering that notice had not already been provided to them.

The Public Staff presented the testimony of Mr. Furr at the public hearing. The Public Staff admitted into evidence at the hearing the Affidavits of Mr. Henry and Mr. Craig.

No public witness appeared at the public hearing.

Based upon the application and the amended application, the Commission's records, the testimony of witnesses at the public hearing, the evidence introduced at the hearing, and the entire record in this matter, the Commission makes the following

FINDINGS OF FACT

1. This is the first franchise sought by ONSWC.
2. ONSWC is properly before the Commission, seeking approval of a CPCN pursuant to G.S. 62-110 to provide wastewater utility service in the Majestic Oaks Subdivision and Hampstead Shopping Center, and approval of rates.
3. The plans for the Majestic Oaks wastewater treatment and high-rate infiltration system are approved by the North Carolina Department of Environment and Natural Resources, Division of Water Quality (DWQ) under a permit issued to HLG for of a 25,005 gpd wastewater treatment plant (WWTP) and high rate infiltration facilities. The 25,005 gpd WWTP can be expanded to a 59,720 gpd WWTP upon completion of the second phase of the high-rate infiltration basin. The Majestic Oaks collection system, which is approved by a DWQ permit issued to HLG, consists of 9,610 linear feet of 8-inch gravity sewer, three pump stations, and 5,705 linear feet of 3-inch force main. The Hampstead Shopping Center collection system is permitted to Hampstead Center Associated, LP, and it includes 365 linear feet of 4-inch gravity sewer, 330 linear feet of 6-inch gravity sewer, 744 linear feet of 8-inch gravity sewer, a pump station, and 1,060 linear feet of 2-inch force main, with discharge up to 5,000 gpd into the wastewater treatment facility. ONSWC intends to acquire the permits from HLG for the wastewater treatment system and the collection system serving the Majestic Oaks subdivision.
4. Pursuant to the Order Granting Temporary Operating Authority, ONSWC is currently providing wastewater utility service to approximately 55 residential

customers in the Majestic Oaks Subdivision and Hampstead Shopping Center. ONSWC began providing wastewater utility service and charging customers as of December 1, 2012, after the Commission issued its Order Granting Temporary Operating Authority on November 20, 2012.

5. There are 139 planned lots for the Majestic Oaks Subdivision, and 113 of those planned lots have already been approved.

6. ONSWC plans to purchase the Majestic Oaks wastewater utility system from HLG, at zero cost. However, ONSWC will collect connection fees from future connections to the wastewater system and reimburse those fees to HLG. When needed, HLG will complete the construction of the second phase of the high rate infiltration system, up to a cost of \$125,000, with ONSWC paying for costs over \$125,000, if any. HLG will also pay for the construction of any additional collection system required to serve lots in the Majestic Oaks Subdivision.

7. ONSWC has the technical, managerial, and financial capability to provide sewer utility service to the Majestic Oaks Subdivision and Hampstead Shopping Center.

8. The quality of wastewater utility service provided to date by ONSWC has been satisfactory.

9. In its amended application, ONSWC applied for the following flat monthly sewer rates and connection fee:

Residential Service	\$ 60.00
Non-residential service per REU	\$ 60.00
Hampstead Shopping Center (24 REUs)	\$1,440.00
Connection Fee (per REU)	\$4,200.00

10. ONSWC and the Public Staff are in agreement that the Commission should approve the following flat monthly sewer rates and connection fee:

Residential Service	\$ 60.00
Non-residential service per REU	\$ 60.00
Hampstead Shopping Center (14 REUs)	\$ 840.00
Connection Fee (per REU)	\$4,200.00

11. ONSWC has filed all exhibits required for the CPCN.

12. The service area for which this CPCN is issued is the Majestic Oaks Subdivision and the Hampstead Shopping Center. The Hampstead Shopping Center will be served as a bulk customer until the Hampstead Shopping Center wastewater collection system is transferred to ONSWC. Prior to the transfer, the owner of the Hampstead Shopping Center shall be responsible for the operation, maintenance and repair of the wastewater collection system.

Based upon the application, the amended application, and the entire record in this proceeding, the Hearing Examiner is of the opinion that the bond and surety filed by ONSWC should be accepted and approved; that the sewer utility franchise requested by ONSWC should be granted; and that the following rates and connection fee that have been agreed upon by ONSWC and the Public Staff are just and reasonable and should be approved:

Residential Service	\$ 60.00
Non-residential service per REU	\$ 60.00
Hampstead Shopping Center (14 REUs)	\$ 840.00
Connection Fee (per REU)	\$4,200.00

IT IS, THEREFORE, ORDERED as follows:

1. That the bond and surety in the amount of \$20,000.00 filed by ONSWC is accepted and approved.
2. That ONSWC is granted a CPCN to provide sewer utility service in the Majestic Oaks Subdivision and Hampstead Shopping Center service area in Pender County, North Carolina.
3. That Appendix A constitutes the CPCN.
4. That the Schedule of Rates, attached as Appendix B, is approved for sewer utility service rendered by ONSWC in the Majestic Oaks Subdivision and Hampstead Shopping Center service area. The Schedule of Rates is authorized to become effective for service rendered on and after the date of this Order.
5. That the Notice to Customers, attached as Appendix C, be mailed with sufficient postage or hand-delivered by ONSWC to all customers not later than 10 days after the date of this Order; and that ONSWC shall submit to the Commission the attached Certificate of Service properly signed and notarized no later than 15 days after the date of this Order.

ISSUED BY ORDER OF THE COMMISSION.

This the 7th day of January, 2013.

NORTH CAROLINA UTILITIES COMMISSION

Gail L. Mount

Gail L. Mount, Chief Clerk

rb010413.01

APPENDIX A

SCHEDULE OF RATES

for

OLD NORTH STATE WATER COMPANY, LLCfor providing sewer utility service inMAJESTIC OAKS SUBDIVISION AND HAMPSTEAD SHOPPING CENTER

Pender County, North Carolina

Sewer Utility Service: (monthly)

Residential Service	\$ 60.00
Non-residential service per REU	\$ 60.00
Hampstead Shopping Center (14 REUs)	\$ 840.00

Connection Charge: (per REU) \$4,200.00

Reconnection Charge:

If sewer service is cut off by utility for good cause: \$ 15.00

Bills Due: On billing date

Bill Past Due: 15 days after billing date

Billing Frequency: Shall be monthly for service in arrears

Finance Charge for Late Payment: 1% per month will be applied to the unpaid balance of all bill still past due 25 days after billing date

Issued in Accordance with Authority Granted by the North Carolina Utilities Commission in Docket No. W-1300, Sub 0, on this the 7th day of January, 2013

**STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH**

APPENDIX B

DOCKET NO. W-1300, SUB 0

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of
Application by Old North State Water Company, LLC, for)
a Certificate of Public Convenience and Necessity to) NOTICE TO
Provide Sewer Utility Service in Majestic Oaks) CUSTOMERS
Subdivision and Hampstead Shopping Center in Pender)
County, North Carolina, and for Approval of Rates.)

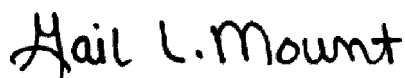
Notice is hereby given that the North Carolina Utilities Commission has issued an Order Granting Franchise, Approving Rates, and Requiring Customer Notice in the above-captioned matter. Said Order authorized Old North State Water Company, LLC, to charge sewer utility rates in Majestic Oaks Subdivision and Hampstead Shopping Center in Pender County, North Carolina, as follows:

Sewer Utility Service: (monthly)

Residential Service	\$ 60.00
Non-residential service per REU	\$ 60.00
Hampstead Shopping Center (14 REUs)	\$ 840.00

This the 7th day of January, 2013.

NORTH CAROLINA UTILITIES COMMISSION



Gail L. Mount, Chief Clerk

OFFICIAL COPY

Oct 03 2022

CERTIFICATE OF SERVICE

I, _____, mailed with sufficient postage or hand delivered to all affected customers the attached Notice to Customers issued by the North Carolina Utilities Commission in Docket No. W-1300, Sub 0, and the Notice was mailed or hand delivered by the date specified in the Order.

This the ____ day of _____, 2013.

By: _____

Signature

Name of Utility Company

The above named Applicant, _____, personally appeared before me this day and, being first duly sworn, says that the required Notice to Customers was mailed or hand delivered to all affected customers, as required by the Commission Order dated _____ in Docket No. W-1300, Sub 0.

Witness my hand and notarial seal, this the ____ day of _____, 2013.

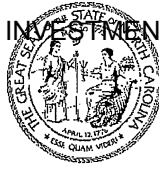
Notary Public

Address

(SEAL)

My Commission Expires:

Date



**NORTH CAROLINA
PUBLIC STAFF
UTILITIES COMMISSION**

January 7, 2019

Mr. Michael Myers
Old North State Water Company, LLC
4700 Homewood Court, Suite 108
Raleigh, NC 27609

RE: Old North State Water Company, LLC
Docket No. W-1300, Sub 56
Notification of Intention to Begin Operations in Area Contiguous to Present
Service Area – Salter's Haven at Lea Marina Subdivision, Pender County

TO WHOM IT MAY CONCERN:

The North Carolina Utilities Commission has received a Notification of Intention to Begin Operations in Area Contiguous to Present Service Area to provide sewer utility service in Salter's Haven at Lea Marina Subdivision in Pender County, North Carolina. The service area is contiguous to Old North State Water Company's Majestic Oaks service area. The Public Staff anticipates that approval will be granted upon investigation and review of the submitted notification.

Please feel free to call if you have any questions or if I can be of further assistance.

Sincerely,

Lindsay Q. Darden, PE
Engineer
Public Staff – Water Division
North Carolina Utilities Commission

cc: Chief Clerk
Freda Hilburn

Executive Director
733-2435

Communications
733-5610

Economic Research
733-2902

Legal
733-6110

Transportation
733-7766

Accounting
733-4279

Consumer Services
733-9277

Electric
733-2267

Natural Gas
733-4326

Water
733-5610



Governor

DONALD R. VAN DER VAART

Secretary

S. JAY ZIMMERMAN

Director

February 19, 2016

Michael J. Myers, President
Old North State Water Company, LLC
1620 Chalk Road
Wake Forest, NC 27587

Subject: Adjusted Daily Sewage Flow Rate Approval
Majestic Oaks
Majestic Oaks WWTF (WQ0030088)

Dear Mr. Myers:

On January 19, 2016, the Division of Water Resources (Division) received an adjusted daily sewage flow rate (flow reduction) request that would apply to all future residential connections tributary to the Majestic Oaks WWTF (WQ0030088).

In accordance with 15A NCAC 02T .0114(f)(2), the Division has evaluated the request and based on the data submitted, the Division hereby approves for use by the applicant an adjusted daily sewage design flow rate with the following conditions:

- The flow reduction is granted for future residential connections tributary to the system. Permitted but not yet tributary connections can be granted the flow reduction, however a permit modification request must be submitted to the Division.
- The flow reduction is applicable to residential single family dwellings only.
- The minimum flow for 1 and 2 bedroom dwellings shall be 140 gallons per day.
- Each additional bedroom above two bedrooms shall increase the volume by 70 gallons per day per bedroom.
- This flow reduction shall not apply to sewer extension applications and/or permits for any other public or private organizations whose wastewater flows are or might become tributary to the Majestic Oaks WWTF (WQ0030088).

All other aspects of the permitting process remain unchanged, and all applications must be in compliance with the statutes, rules, regulations and minimum design criteria as certified by the owner and engineer.

Regardless of the adjusted design daily wastewater flow rate, at no time shall the wastewater flows exceed the effluent limits defined in the for the treatment facility or exceed the capacity of the sewers downstream of any new sewer extension or service connection(s).

Majestic Oaks WWTF
February 19, 2016

The granting of this flow reduction does not prohibit the Division from reopening, revoking, reissuing and/or modifying the flow reduction as allowed by the laws, rules, and regulations contained in 15A NCAC 02T, NCGS 143-215.1, or as needed to address changes in State and/or Federal regulations with respect to wastewater collection systems, protection of surface waters and/or wastewater treatment.

If you have any questions, please contact Michael Leggett at (919) 807-6312, or via e-mail at michael.leggett@ncdenr.gov.

Sincerely,



for S. Jay Zimmerman, P.G.
Director, Division of Water Resources

by Deborah Gore, Supervisor
Pretreatment, Emergency Response, Collection System Unit

cc: Donna Cote, Hampstead Land Group, LLC
120 Penmarc Drive, Suite 118, Raleigh, NC 27603
Scott Smart, PE – Envirolink (ssmart@envirolink.com)
Nathaniel Thornburg, Unit Supervisor – Non-Discharge Permitting Unit
Wilmington Regional Office Regional Office, Water Quality Section Regional Operations
Water Resources Central Files: WQ0030088
PERCS (electronic copy)

From: [D Logan](#)
To: [Mary Catherine Santos](#)
Subject: Fw: Lea Tract Options
Date: Tuesday, December 1, 2020 11:20:07 AM
Attachments: [image001.png](#)

From: D Logan <dlogan@loganhomes.com>
Sent: Monday, November 30, 2020 3:00 PM
To: D Logan <dlogan@loganhomes.com>
Subject: FW: Lea Tract Options



D LOGAN
OWNER AND PRESIDENT
60 GREGORY ROAD, SUITE 1
BELVILLE, NC 28451
 O [910-452-1017](#)
 C [910-443-2869](#)
[LOGANDEVELOPERS.COM](#)

From: D Logan <dlogan@loganhomes.com>
Sent: Monday, November 30, 2020 1:13 PM
To: Mary Catherine Santos <msantos@loganhomes.com>
Cc: D Logan <dlogan@loganhomes.com>
Subject: Fw: Lea Tract Options

From: D Logan
Sent: Monday, July 23, 2018 9:08 AM
To: Patrick Lennon <[patrick@loganhomes.com](#)>
Subject: Fwd: Lea Tract Options

Begin forwarded message:

From: D Logan <[dlogan@loganhomes.com](#)>
Date: July 21, 2018 at 3:32:42 PM EDT

To: John McDonald <JMcDonald@integrawater.com>

Cc: Jessica Vamvakias <jv@loganhomes.com>, Michael Myers <mmyers@envirolinkinc.com>, Tim Clinkscales <tclinkscales@paramounte-eng.com>

Subject: Re: Lea Tract Options

I believe this will work, write it up!

D Logan

910-443-2869

dlogan@loganhomes.com

On Jul 20, 2018, at 10:52 AM, John McDonald <JMcDonald@integrawater.com> wrote:

Jessica and D,

Please see below for our thoughts related to the call yesterday afternoon. Our comments are in red.

Apologies for the delay this morning, I had an executive committee meeting that went late.

Best regards and we look forward to hearing from you.

Thanks,

John

John McDonald

President

<image001.jpg>

600 University Park Place

Suite 275

Birmingham, AL 35209

D 205.326.3355

P 205.326.3200

www.integrawater.com

From: Jessica Vamvakias <jv@loganhomes.com>

Sent: Monday, July 16, 2018 3:19 PM

To: Michael Myers <mmyers@envirolinkinc.com>; D Logan <dlogan@loganhomes.com>

Cc: Tim Clinkscales <tclinkscales@paramounte-eng.com>; John McDonald <JMcDonald@integrawater.com>

Subject: RE: Lea Tract Options

Good Afternoon Mike,

Thank you for sending along your proposal. We appreciate the time and attention that you have

given our project.

We are not interested in Option 2, however, we have a counter proposal to Option 1. Please see below in **blue**.

If you are in agreement to what we are proposing below, we would also like a few obligations from you:

1. **ONSWC to have permitting for up to 130,000gpd capacity by 12/31/18 agreed**
2. **The construction of any and all force main, pump station upgrades, ready to receive flow no later than 7/1/19**
3. **The treatment plant upgrade must commence construction no later than the connection of 75 homes to the collection system, by any new development**
4. **Impact/Capacity Fees to be locked in at \$4200 per home until 12/31/25**

Can you also please send us a draft of your Developer's Agreement for our review?

Please let us know if you have any questions or comments.

Traditional Option

We think what makes sense is for us to work with Paramount (Tim) as the lead engineer and permit the on-site (within the community) and off-site sewer in ONSWC's name but allow the construction arm of Logan Homes to do the construction. This allows you to control construction and gets us out of the way for the most part.

1. **ONSWC is to pay engineering expenses for all pump station & force main design, permitting, surveying and certification.**

Right now it looks like Greybull is ahead of the Lea Tract so we would anticipate construction of the off-site sewer for Greybull ahead of the off-site sewer for the Lea Tract. Regardless, we recognize that this may cause some concern on your part, so we would again propose that ONSWC contract with the construction arm of Logan Homes to construct the off-site sewer required for Greybull. There would be approximately 2,150' of the forcemain being shared by Greybull and the Lea tract and this arrangement puts complete control of the schedule under your control.

Hopefully, that all makes sense. The planned route for Greybull intersects with Factory Rd at 2nd St. This is where we would plan on the forcemain for the Lea Tract connecting to forcemain from Greybull.

Our budgetary estimates are (we think there are savings by leveraging our pipe pricing – see below)...

1. Greybull 84 gpm lift station = \$75,000 (using a package lift station)
2. 3,265' of 3" forcemain = \$114,275
3. 2,150' of 6" forcemain = \$63,000 (shared with Lea Tract)

1. **It appears the Lea flow could go into a 4" main unless your intentions are to bring**

others into this line as well. We feel this upsized line should be the responsibility of ONSWC.

4. Lea Tract 180 gpm lift station = \$100,000 (using package lift station)
5. +/- 3,100 of 4" forcemain = \$108,500

Thus, the budget for Greybull is (\$75,000 + \$114,275 + \$17,073) = \$206,348 (\$1,946 per home) and the budget for the Lea Tract is (\$100,000 + \$108,500 + \$45,927) = \$254,427 (\$848 per home).

ONSWC would contract directly with you to construct the following infrastructure required to serve Greybull.

2. **B&D Utilities (Logan) shall have 1st option to do the Greybull work at market price, but does not want to necessarily be obligated to the same.**
3. **B&D Utilities (Logan) shall obviously maintain the exclusive rights to do our own onsite work**

6. Greybull 84 gpm lift station
7. 3,265' of 3" forcemain
8. 2,150' of 6" forcemain

This would leave you to construct the estimated 180 gpm lift station and approximately 3,100 of 4" forcemain in order to connect.

For construction of the Lea Tract lift station and 3,100 of 4" forcemain, ONSWC would rebate to Logan Homes \$700 per home as they connect to the system.

1. **At this time, we are not certain of exact costs associated with the construction of the pump station due to the depth. We do not believe that it can be constructed for \$100,000 based on previous experience.**
 1. **We propose \$1,000 per home as they connect to the system – whatever the cost, provided the pump station is sized only to accommodate the Lea Tract.**
 2. **ONSWC will rebate 82% of the pump station and force main cost, through tap fees.**
 3. **In lieu of the guarantee, we will keep 100% of the connection fees for the first 150 homes, and then we will reimburse the cost of the lift station through splitting the connection fees after the first 150 homes sufficient to meet the 82% noted above.**

Conceptually, ONSWC covers the portion of the forcemain that is shared and then reimburses Logan Homes for the lift station and forcemain as customers come on board.

The final issue is the connection guarantee. We would need a guarantee of at least 50 homes per year from the Lea Tract.

To summarize...

1. ONSWC would contract with the construction arm of Logan Homes for the installation of the Greybull lift station and forcemain to the WWTP
2. Logan Homes would construct the Lea Tract lift station and forcemain to the connection point in or around Factory Rd and 2nd St

3. ONSWC would rebate to Logan Homes \$700 per REU (home) as customers are connected
4. Logan Homes would guarantee 50 new homes per year from the Lea Tract
 1. **In light of us paying for all of the upfront expenditures, i.e. force main and pump station, there is not justification for guaranteeing 50 new homes per year agreed**

As an additional benefit, we are not sure what kind of pricing you are able to secure but we are able to get factory direct pricing on PVC we pass that pricing on to development projects where ONSWC is the water and/or sewer utility. Depending on the pricing you are able to get on your own, this can be a significant savings on both the project and the collection system inside the project site. If you are responsible for the water as well inside the community, we can also pass along our pricing for PVC water mains. From what we are seeing, our pricing is better than what developer/contractors can get on their own.

We also are able to secure pricing on the package lift stations in order to cut down on cost. After you have time to digest, feel free to give us a call and we can answer any questions.

Option 2

1. ~~ONSWC contracts with the construction arm of Logan Homes for the construction of the Greybull lift station and forcemain.~~
2. ~~The construction arm of Logan Homes constructs:~~
 1. ~~Lea Tract lift station & forcemain — estimated budget~~
 2. ~~Approximately 18,000' of 6" effluent line~~
 3. ~~Construct the 100,000 gpd infiltration pond~~
 4. ~~ONSWC expands the WWTP to 140,000 gpd~~
3. ~~ONSWC will...~~
 1. ~~Rebate Logan Homes \$4,450 for each home within the Lea Tract (estimated \$1,335,500) or waive connection fees & rebate \$250 per REU within the Lea Tract~~
 2. ~~Rebate Logan Homes \$500 for each new homes served in the Greybull and the identified Weir Tracts (\$500 x 256 = \$128,000)~~
 3. ~~ONSWC estimates \$1,200,000 for Lea Tract lift station, Lea Tract forcemain, effluent line, & pond construction — this estimate does not include potential savings on pipe by leveraging ONSWC PVC pipe pricing~~
4. ~~No connection fee guarantee required~~

Jessica Vamvakias | Executive Administrator

p. 910.332.3524 c. 207-653-8387 f. 910.332.3528

<image002.jpg>

From: Michael Myers <mmyers@envirolinkinc.com>
Sent: Monday, July 09, 2018 4:43 PM
To: D Logan <dlogan@loganhomes.com>; Jessica Vamvakias <jv@loganhomes.com>
Cc: Tim Clinkscales <tclinkscales@paramounte-eng.com>; 'John McDonald' <jmcdonald@integrawater.com>
Subject: Lea Tract Options

Dee/Jessica,

Thanks for the opportunity. We have been working to finalize budget estimates and I think we are there.

Our strategy in putting this together was to give you as much direct control as possible. We heard you loud & clear that you like to move fast, so we thought you would be more comfortable having direct control to the largest extent possible. With that in mind we propose the following options. Option 1 is in line with a typical structure, while we offer an alternative that is in line with what we proposed in our meeting.

General information

1. ONSWC is committed to serve 106 homes on the Greybull Tract.
2. The Lea Tract is planned for 300 homes
3. ONSWC is planning for an additional 150 homes (Others)
4. The total number of Residential Equivalents anticipated is 656.
5. From a flow perspective, this equates to...
 1. Greybull = $106 \times 210 \text{ gpd} = 22,260 \text{ gpd}$
 2. Lea Tract = $300 \times 210 \text{ gpd} = 60,000 \text{ gpd}$
 3. Others = $150 \times 210 \text{ gpd} = 31,500 \text{ gpd}$
 4. Total = 113,760 gpd
6. Current ONSWC WWTP permitted capacity = 59,720 gpd
7. Planned expansion of an additional 80,280 gpd to 140,000 gpd in phase 1.

Project Specific Information (WW related) – This assumes that you decided to go with ONSWC for sewer service.

Greybull

Off site sewer infrastructure requirements (does not include sewer collection system required within the community)

1. 1 – 84 gpm sewer lift station
2. 3,265' of 3" forcemain
3. 2,150' of 6" forcemain (shared with Lea tract – prorata 72.9% Lea/27.1% Greybull)

Lea Tract

Off-site sewer infrastructure requirements (does not include sewer collection system required within the community)

Alternative A – Pump Station/Forcemain

1. Approximate 180 gpm sewer lift station
2. Approximately 3,100' of 4" forcemain
3. 2,150' of 6" forcemain (shared with Greybull)

Alternative B – Low Pressure Sewer (requires hydraulic modelling)

1. **5,250' of 4" forcemain to WWTP**
2. **Individual grinder pumps at each home (installed by builder) with connection to forcemain in street**

We like Alternative A but are open to Alternative B if that provides any advantages to you.

Others – Are not included in this analysis, since the off-site sewer requirements would not impact the Lea Tract.

Traditional Option

We think what makes sense is for us to work with Paramount (Tim) as the lead engineer and permit the on-site (within the community) and off-site sewer in ONSWC's name but allow the construction arm of Logan Homes to do the construction. This allows you to control construction and gets us out of the way for the most part.

Right now it looks like Greybull is ahead of the Lea Tract so we would anticipate construction of the off-site sewer for Greybull ahead of the off-site sewer for the Lea Tract. Regardless, we recognize that this may cause some concern on your part, so we would again propose that ONSWC contract with the construction arm of Logan Homes to construct the off-site sewer required for Greybull. There would be approximately 2,150' of the forcemain being shared by Greybull and the Lea tract and this arrangement puts complete control of the schedule under your control.

Hopefully, that all makes sense. The planned route for Greybull intersects with Factory Rd at 2nd St. This is where we would plan on the forcemain for the Lea Tract connecting to forcemain from Greybull.

Our budgetary estimates are (we think there are savings by leveraging our pipe pricing – see below)...

9. Greybull 84 gpm lift station = \$75,000 (using a package lift station)
10. 3,265' of 3" forcemain = \$114,275
11. 2,150' of 6" forcemain = \$63,000 (shared with Lea Tract)
12. Lea Tract 180 gpm lift station = \$100,000 (using package lift station)
13. +/- 3,100 of 4" forcemain = \$108,500

Thus, the budget for Greybull is $(\$75,000 + \$114,275 + \$17,073) = \$206,348$ (\$1,946 per home) and the budget for the Lea Tract is $(\$100,000 + \$108,500 + \$45,927) = \$254,427$ (\$848 per home).

ONSWC would contract directly with you to construct the following infrastructure required to serve

Greybull.

14. Greybull 84 gpm lift station
15. 3,265' of 3" forcemain
16. 2,150' of 6" forcemain

This would leave you to construct the estimated 180 gpm lift station and approximately 3,100 of 4" forcemain in order to connect.

For construction of the Lea Tract lift station and 3,100 of 4" forcemain, ONSWC would rebate to Logan Homes \$700 per home as they connect to the system.

Conceptually, ONSWC covers the portion of the forcemain that is shared and then reimburses Logan Homes for the lift station and forcemain as customers come on board.

The final issue is the connection guarantee. We would need a guarantee of at least 50 homes per year from the Lea Tract.

To summarize...

1. ONSWC would contract with the construction arm of Logan Homes for the installation of the Greybull lift station and forcemain to the WWTP
2. Logan Homes would construct the Lea Tract lift station and forcemain to the connection point in or around Factory Rd and 2nd St
3. ONSWC would rebate to Logan Homes \$700 per REU (home) as customers are connected
4. Logan Homes would guarantee 50 new homes per year from the Lea Tract

As an additional benefit, we are not sure what kind of pricing you are able to secure but we are able to get factory direct pricing on PVC we pass that pricing on to development projects where ONSWC is the water and/or sewer utility. Depending on the pricing you are able to get on your own, this can be a significant savings on both the project and the collection system inside the project site. If you are responsible for the water as well inside the community, we can also pass along our pricing for PVC water mains. From what we are seeing, our pricing is better than what developer/contractors can get on their own.

We also are able to secure pricing on the package lift stations in order to cut down on cost. After you have time to digest, feel free to give us a call and we can answer any questions.

Option 2

5. ONSWC contracts with the construction arm of Logan Homes for the construction of the Greybull lift station and forcemain.
6. The construction arm of Logan Homes constructs:
 1. Lea Tract lift station & forcemain – estimated budget
 2. Approximately 18,000' of 6" effluent line
 3. Construct the 100,000 gpd infiltration pond
 4. ONSWC expands the WWTP to 140,000 gpd
7. ONSWC will...

1. Rebate Logan Homes \$4,450 for each home within the Lea Tract (estimated \$1,335,500) or waive connection fees & rebate \$250 per REU within the Lea Tract
2. Rebate Logan Homes \$500 for each new homes served in the Greybull and the identified Weir Tracts ($\$500 \times 256 = \$128,000$)
3. ONSWC estimates \$1,200,000 for Lea Tract lift station, Lea Tract forcemain, effluent line, & pond construction – this estimate does not include potential savings on pipe by leveraging ONSWC PVC pipe pricing
8. No connection fee guarantee required

Thanks,

<image003.jpg>

Michael Myers
President
Envirolink, Inc.

OFFICIAL COPY

Oct 03 2022

From: [Maurice Gallarda](#)
To: [Erica Cochran](#)
Cc: [Laurie Oakman](#); [John McDonald](#); [John Miller](#); [Dan Winters](#)
Subject: RE: [EXTERNAL] Majestic Oaks Service Area Information
Date: Thursday, October 22, 2020 12:02:00 PM

We'll correct the original filing with the Public Staff.

Thanks

M

Maurice W. Gallarda, PE

Managing Member



Pluris Holdings LLC

T 214.220.3412 / F 214.965.9090
 5950 Berkshire Lane, Suite 800, Dallas, Texas 75225

This e-mail is subject to the Pluris Holdings email disclaimer.

[Click to read full disclaimer.](#)

From: Erica Cochran <ecochran@integrawater.com>
Sent: Thursday, October 22, 2020 11:15 AM
To: Maurice Gallarda <mgallarda@plurisusa.com>
Cc: Laurie Oakman <loakman@integrawater.com>; John McDonald <JMcDonald@integrawater.com>; John Miller <jmiller@integrawater.com>; Dan Winters <dwinters@plurisusa.com>
Subject: RE: [EXTERNAL] Majestic Oaks Service Area Information

Maurice:

I apologize, I can not find the map I used but regardless, I was incorrect in that amount. Phase I of Salters Haven is 119 lots, but once Salters Haven is completely built out, it will be 338 lots. We don't have a great map, but I have attached what we do have for you.

Thank you,

Erica Cochran
 Executive Assistant/Property Manager
ecochran@integrawater.com



Direct 205-326-3698
 Fax 205-326-6856

www.integrawater.com

3212 6th Avenue South
Suite 200
Birmingham, AL 35222

From: Maurice Gallarda <mgallarda@plurisusa.com>
Sent: Thursday, October 22, 2020 10:56 AM
To: Erica Cochran <ecochran@integrawater.com>
Cc: Laurie Oakman <loakman@integrawater.com>; John McDonald <JMcDonald@integrawater.com>; John Miller <jmiller@integrawater.com>; Dan Winters <dwwinters@plurisusa.com>
Subject: RE: [EXTERNAL] Majestic Oaks Service Area Information

Hi Erica,

I am responding to a Public Staff new data request and need something from you. In your table you list 199 lots at buildout for Salters Haven. The attached PDF shows 119 lots and the Public Staff has asked if there is a Map showing all 199 lots. If the additional 80 lots (199-119 showing) are not yet laid out in the development just say so. If there is a map showing all 199 please send as soon as possible. We are trying to expedite the transfer.

Thanks
Maurice

Maurice W. Gallarda, PE
Managing Member



Pluris Holdings LLC

T 214.220.3412 / **F** 214.965.9090
5950 Berkshire Lane, Suite 800, Dallas, Texas 75225

This e-mail is subject to the Pluris Holdings email disclaimer.
[Click to read full disclaimer.](#)

From: Erica Cochran <ecochran@integrawater.com>
Sent: Tuesday, October 20, 2020 1:50 PM
To: Maurice Gallarda <mgallarda@plurisusa.com>
Cc: Laurie Oakman <loakman@integrawater.com>; John McDonald <JMcDonald@integrawater.com>; John Miller <jmiller@integrawater.com>
Subject: [EXTERNAL] Majestic Oaks Service Area Information

Maurice:

I have completed the excel table with the information you were requesting for Majestic Oaks. Let me know if you have any questions or need additional information.

Thank you,

Erica Cochran
Executive Assistant/Property Manager
ecochran@integrawater.com



Direct 205-326-3698
Fax 205-326-6856

www.integrawater.com

3212 6th Avenue South
Suite 200
Birmingham, AL 35222

Links contained in this email have been replaced by ZixProtect Link Protection. If you click on a link in the email above, the link will be analyzed for known threats. If a known threat is found, you will not be able to proceed to the destination. If suspicious content is detected, you will see a warning.

Links contained in this email have been replaced by ZixProtect Link Protection. If you click on a link in the email above, the link will be analyzed for known threats. If a known threat is found, you will not be able to proceed to the destination. If suspicious content is detected, you will see a warning.

From: [Maurice Gallarda](#)
To: [Daniel Higgins](#)
Subject: Fwd: Need a favor on my end
Date: Tuesday, July 28, 2020 2:27:41 PM

Fyi

Sent from my iPhone

Begin forwarded message:

From: Maurice Gallarda <mgallarda@plurisusa.com>
Date: July 28, 2020 at 2:07:00 PM CDT
To: John McDonald <JMcDonald@integrawater.com>
Subject: RE: Need a favor on my end

Thanks John,
I'll get back to you on it as soon as I hear back...

Maurice W. Gallarda, PE
Managing Member



Pluris Holdings LLC

T 214.220.3412 / **F** 214.965.9090
5950 Berkshire Lane, Suite 800, Dallas, Texas 75225

This e-mail is subject to the Pluris Holdings email disclaimer.
[Click to read full disclaimer.](#)

From: John McDonald <JMcDonald@integrawater.com>
Sent: Tuesday, July 28, 2020 2:06 PM
To: Maurice Gallarda <mgallarda@plurisusa.com>
Subject: RE: Need a favor on my end

Maurice,

Sorry to bother you on vacation. I am hoping to have Karen return comments today to you and Dan Higgins.

Relative to the Lea track, I (nor the Envirolink team) had heard of this. I think maybe it was a verbal commitment. It struck me as odd, hence checking with you first.

Enjoy your vacation.

John

John McDonald



3212 6th Avenue South
Suite 200

Birmingham, AL 35222

D 205.326.3355

P 205.326.3200

www.integrawater.com

From: Maurice Gallarda <mgallarda@plurisusa.com>

Sent: Tuesday, July 28, 2020 2:03 PM

To: John McDonald <JMcDonald@integrawater.com>

Subject: RE: Need a favor on my end

John,

I will get back to you on the Lea permit before the end of day tomorrow. I am on vacation and traveling and should hear back from Gallant and Tweed quickly. I have had Jerry Tweed and Dan Higgins go through the agreement between Old North State and Salters Haven and I didn't note any additional requirement to include a 3rd party permit at this time. I assume any developer can apply for service and we'll be happy to add customers but there has to be a developer agreement in place and there currently looks like its only D. Logan at Salters Haven. Is there another document that somehow ties this 15 acre parcel in or is Tim Clinkscales just looking for a favor? Let me know.. Also, when will you have your comments back to Karen so Dan Higgins can keep the process going while I'm on vacation?

Maurice W. Gallarda, PE

Managing Member



Pluris Holdings LLC

T 214.220.3412 / **F** 214.965.9090

5950 Berkshire Lane, Suite 800, Dallas, Texas 75225

This e-mail is subject to the Pluris Holdings email disclaimer.

[Click to read full disclaimer.](#)

From: John McDonald <JMcDonald@integrawater.com>

Sent: Tuesday, July 28, 2020 1:03 PM
To: Maurice Gallarda <mgallarda@plurisusa.com>
Subject: FW: Need a favor on my end

Maurice,

Please give me your thoughts on the attached permit. Somehow the original land owner wants to get this pipe in the ground while the contractor is onsite (not our cost, and see below). Do you care? I am guessing more customers are good for you, but would not sign without your consent based on where we are in the process.

Best,

John

John McDonald



3212 6th Avenue South
Suite 200
Birmingham, AL 35222
D 205.326.3355
P 205.326.3200
www.integrawater.com

From: Tim Clinkscales <tclinkscales@paramounte-eng.com>
Sent: Saturday, July 25, 2020 3:41 PM
To: John McDonald <JMcDonald@integrawater.com>
Subject: Need a favor on my end

John

I will call you in a few on all items, but need a favor as well before turned over to Pluris. As part of the Salters Haven deal, the original land owner is to have alternate sewer (LPS sewer) for his future 15 acres. It will be no flow but need you to sign if possible. It is shown on the detail sheet

Thanks

[Tim Clinkscales PE, PLS](#)

PARAMOUNTE ENGINEERING, INC
122 Cinema Drive
Wilmington, NC 28403
OFFICE: (910) 791-6707
CELL: (910) 520-1991

FAX: (910) 791-6760
www.paramounte-eng.com

Links contained in this email have been replaced by ZixProtect Link Protection. If you click on a link in the email above, the link will be analyzed for known threats. If a known threat is found, you will not be able to proceed to the destination. If suspicious content is detected, you will see a warning.

Links contained in this email have been replaced by ZixProtect Link Protection. If you click on a link in the email above, the link will be analyzed for known threats. If a known threat is found, you will not be able to proceed to the destination. If suspicious content is detected, you will see a warning.

OFFICIAL COPY

Oct 03 2022

From: [Maurice Gallarda](#)
To: [Randy Hoffer](#)
Subject: Fwd: McDonald Response to Clinkscates
Date: Monday, October 12, 2020 8:40:44 AM

For your information.....

Sent from my iPhone

From: John McDonald
Sent: Friday, October 9, 2020 4:05 PM
To: 'Tim Clinkscates' <tclinkscates@paramounte-eng.com>
Subject: RE: Need a favor on my end

Tim,

I am in an awkward spot here. As you know, Pluris is acquiring that facility. I re read the contract, and it states we are to serve an area of approximately 30 connections, adjacent to Salters Haven, but says nothing about low pressure. Pluris is adamant that they will not allow low pressure, so out of good faith, Old North State will serve the area, but not allow low pressure. Perhaps utilizing one of the small prefab fiberglass lift stations is the most cost effective approach?

Again, service is available per the contract, but low pressure is not acceptable.

Have a nice weekend.

John

John McDonald
3212 6th Avenue South
Suite 200
Birmingham, AL 35222
D 205.326.3355
P 205.326.3200
www.integrawater.com

From: Tim Clinkscates <tclinkscates@paramounte-eng.com>
Sent: Friday, October 9, 2020 3:05 PM
To: John McDonald <JMcDonald@integrawater.com>
Subject: FW: Need a favor on my end

John

Here are the form for you to sign, along with plans for the neighborhood
and tie in point for this location
If you can sign the form and scan back much appreciated
Thanks

Tim Clinkscales PE, PLS

PARAMOUNTE ENGINEERING, INC
122 Cinema Drive
Wilmington, NC 28403
OFFICE: (910) 791-6707
CELL: (910) 520-1991
FAX: (910) 791-6760
www.paramounte-eng.com

From: Tim Clinkscales
Sent: Saturday, July 25, 2020 4:41 PM
To: John McDonald <JMcDonald@integrawater.com>
Subject: Need a favor on my end

John
I will call you in a few on all items, but need a favor as well before turned
over to Pluris. As part of the Salters Haven deal, the original land owner is
to have alternate sewer (LPS sewer) for his future 15 acres. It will be no
flow but need you to sign if possible. It is shown on the detail sheet

Thanks

Tim Clinkscales PE, PLS

PARAMOUNTE ENGINEERING, INC
122 Cinema Drive
Wilmington, NC 28403
OFFICE: (910) 791-6707
CELL: (910) 520-1991
FAX: (910) 791-6760
www.paramounte-eng.com

From: [John McDonald](#)
To: [Maurice Gallarda](#)
Subject: FW: Need a favor on my end
Date: Friday, October 9, 2020 10:43:26 AM
Attachments: [WQ0040846 p 19.11.01.pdf](#)

Fyi

John McDonald



3212 6th Avenue South
Suite 200
Birmingham, AL 35222
D 205.326.3355
P 205.326.3200
www.integrawater.com

From: Tim Clinkscales <tclinkscales@paramounte-eng.com>
Sent: Monday, August 3, 2020 5:11 PM
To: John McDonald <JMcDonald@integrawater.com>
Subject: RE: Need a favor on my end

We already have grinder pumps in the system along the waterway so not something new. We have already approved 26 lots using the low pressure alternate. Please call me with any concerns, at most 10 future lots and Logan has been very patient on this

Thanks and good night

[Tim Clinkscales PE, PLS](#)

PARAMOUNTE ENGINEERING, INC
122 Cinema Drive
Wilmington, NC 28403
OFFICE: (910) 791-6707
CELL: (910) 520-1991
FAX: (910) 791-6760
www.paramounte-eng.com

From: John McDonald <JMcDonald@integrawater.com>
Sent: Monday, August 3, 2020 5:22 PM
To: Tim Clinkscales <tclinkscales@paramounte-eng.com>
Subject: RE: Need a favor on my end

Tim,

Talked back with our folks. We are not comfortable on the low pressure grinder pumps. Both Chuck and Lee were unaware of any verbal arrangement.

I know that if we come to terms with Pluris, they would be uncomfortable with grinders as well. My guess is the landowner needs to plan on a small pump station to serve that property. The fiberglass prefab units are more affordable than precast, as a thought.

Thanks,

John

John McDonald



3212 6th Avenue South
Suite 200
Birmingham, AL 35222
D 205.326.3355
P 205.326.3200
www.integrawater.com

From: Tim Clinkscales <tclinkscales@paramounte-eng.com>
Sent: Monday, August 3, 2020 11:30 AM
To: John McDonald <JMcDonald@integrawater.com>
Subject: RE: Need a favor on my end

John

Wanted to check back on this and see if Chuck has been able to look at and we can get a signature

Thanks

[Tim Clinkscales PE, PLS](#)

PARAMOUNTE ENGINEERING, INC
122 Cinema Drive
Wilmington, NC 28403
OFFICE: (910) 791-6707
CELL: (910) 520-1991
FAX: (910) 791-6760
www.paramounte-eng.com

From: John McDonald <JMcDonald@integrawater.com>
Sent: Saturday, July 25, 2020 5:26 PM
To: Tim Clinkscales <tclinkscales@paramounte-eng.com>
Subject: Re: Need a favor on my end

Tim,

The Pluris deal will take a while. I spoke with Robert Jackson and think I have everyone calmed down, though I have not mentioned Pluris yet.

Let me take a look at this Monday and I will give you a call.

Thanks Tim.

John

John McDonald

Sent from a mobile device. Please excuse typos or auto correct errors.

From: Tim Clinkscales <tclinkscales@paramounte-eng.com>

Sent: Saturday, July 25, 2020 3:41:24 PM

To: John McDonald <JMcDonald@integrawater.com>

Subject: Need a favor on my end

John

I will call you in a few on all items, but need a favor as well before turned over to Pluris. As part of the Salters Haven deal, the original land owner is to have alternate sewer (LPS sewer) for his future 15 acres. It will be no flow but need you to sign if possible. It is shown on the detail sheet

Thanks

Tim Clinkscales PE, PLS

PARAMOUNTE ENGINEERING, INC

122 Cinema Drive

Wilmington, NC 28403

OFFICE: (910) 791-6707

CELL: (910) 520-1991

FAX: (910) 791-6760

www.paramounte-eng.com

Links contained in this email have been replaced by ZixProtect Link Protection. If you click on a link in the email above, the link will be analyzed for known threats. If a known threat is found, you will not be able to proceed to the destination. If suspicious content is detected, you will see a warning.

From: [Maurice Gallarda](#)
To: [Michael Gallant](#)
Subject: RE: Salters Haven
Date: Thursday, April 15, 2021 2:52:00 PM

Got it... thanks

Maurice W. Gallarda, PE
Managing Member



Pluris Holdings LLC

T 214.220.3412 / F 214.965.9090
5950 Berkshire Lane, Suite 800, Dallas, Texas 75225

This e-mail is subject to the Pluris Holdings email disclaimer.
[Click to read full disclaimer.](#)

From: Michael Gallant <gallantmc@yahoo.com>
Sent: Thursday, April 15, 2021 2:52 PM
To: Maurice Gallarda <mgallarda@plurisusa.com>
Subject: Re: Salters Haven

They want the second system he described. We want standard 8 inch gravity with one lift station.

[Sent from Yahoo Mail on Android](#)

On Thu, Apr 15, 2021 at 1:56 PM, Maurice Gallarda
<mgallarda@plurisusa.com> wrote:

I need an answer to send back to Grantmyre as soon as possible. If you both need to compare notes, fine, just get me something quickly...

Maurice W. Gallarda, PE
Managing Member



Pluris Holdings LLC

T 214.220.3412 / F 214.965.9090

5950 Berkshire Lane, Suite 800, Dallas, Texas 75225

This e-mail is subject to the Pluris Holdings email disclaimer.

[Click to read full disclaimer.](#)

From: Grantmyre, William <william.grantmyre@psncuc.nc.gov>
Sent: Thursday, April 15, 2021 12:50 PM
To: Maurice Gallarda <mgallarda@plurisusa.com>
Cc: Dan Higgins (dhiggins@bdppa.com) <dhiggins@bdppa.com>
Subject: Salters Haven

Maurice

What type of wastewater collection system and services is WLI asserting should be installed. In particular, what type of individual residential services?

One type of wastewater service is a STEP system where at each residence there is a septic tank, followed by a pump tank with a pump then pumping the septic water into the collection system pressure main.

A second type is each residence has a grinder pump which then pumps the untreated (except for the grinding) into pressure collection mains.

I assume that Pluris Hampstead wants the wastewater service lines to be the standard 4 ' gravity, which then flows the wastewater into gravity collection mains.

Thanks

WEG

Email correspondence to and from this address may be subject to the North Carolina Public Records Law and may be disclosed to third parties by an authorized state official.

From: [Maurice Gallarda](#)
To: ["Dan Higgins"; Jerry Tweed \(jtweed629@aol.com\)](#)
Subject: FW: New Development
Date: Wednesday, July 29, 2020 3:49:00 PM

Dan
fyi

Maurice W. Gallarda, PE
 Managing Member



Pluris Holdings LLC

T 214.220.3412 / F 214.965.9090
 5950 Berkshire Lane, Suite 800, Dallas, Texas 75225

This e-mail is subject to the Pluris Holdings email disclaimer.
[Click to read full disclaimer.](#)

From: John McDonald <JMcdonald@integrawater.com>
Sent: Wednesday, July 29, 2020 2:31 PM
To: Maurice Gallarda <mgallarda@plurisusa.com>
Subject: RE: New Development

Maurice,

Gallant left me a VM with the same info. I appreciate the thought. Should have the draft contract back to you tomorrow.

John

John McDonald



3212 6th Avenue South
 Suite 200
 Birmingham, AL 35222
 D 205.326.3355
 P 205.326.3200
www.integrawater.com

From: Maurice Gallarda <mgallarda@plurisusa.com>
Sent: Tuesday, July 28, 2020 3:29 PM

To: John McDonald <JMcDonald@integrawater.com>

Subject: RE: New Development

John,

I read this and it is just an application that at some time will be submitted to DEQ for approval. Jerry Tweed confirmed that and Gallant called and said he was tied up in a meeting all day and would look at it. I don't need his thoughts at this point since it's merely an application. My suggestion is that the developer can come forward at the appropriate time and request service and ask for a developer agreement, which will not be unreasonable withheld. I can tell you that you don't want grinder stations from these residences when you can design a lift station to send the waste for treatment. I don't think you should agree with acceptance but I wouldn't.... The project will still be there.... Just a suggestion John as Pluris does not own the utility at this point....

Best regards,

Maurice

Maurice W. Gallarda, PE

Managing Member



Pluris Holdings LLC

T 214.220.3412 / **F** 214.965.9090

5950 Berkshire Lane, Suite 800, Dallas, Texas 75225

This e-mail is subject to the Pluris Holdings email disclaimer.

[Click to read full disclaimer.](#)

From: John McDonald <JMcDonald@integrawater.com>

Sent: Tuesday, July 28, 2020 2:06 PM

To: Maurice Gallarda <mgallarda@plurisusa.com>

Subject: RE: Need a favor on my end

Maurice,

Sorry to bother you on vacation. I am hoping to have Karen return comments today to you and Dan Higgins.

Relative to the Lea track, I (nor the Envirolink team) had heard of this. I think maybe it was a verbal commitment. It struck me as odd, hence checking with you first.

Enjoy your vacation.

John

John McDonald



3212 6th Avenue South
Suite 200
Birmingham, AL 35222
D 205.326.3355
P 205.326.3200
www.integrawater.com

From: Maurice Gallarda <mgallarda@plurisusa.com>
Sent: Tuesday, July 28, 2020 2:03 PM
To: John McDonald <JMcDonald@integrawater.com>
Subject: RE: Need a favor on my end

John,

I will get back to you on the Lea permit before the end of day tomorrow. I am on vacation and traveling and should hear back from Gallant and Tweed quickly. I have had Jerry Tweed and Dan Higgins go through the agreement between Old North State and Salters Haven and I didn't note any additional requirement to include a 3rd party permit at this time. I assume any developer can apply for service and we'll be happy to add customers but there has to be a developer agreement in place and there currently looks like its only D. Logan at Salters Haven. Is there another document that somehow ties this 15 acre parcel in or is Tim Clinkscales just looking for a favor? Let me know..
Also, when will you have your comments back to Karen so Dan Higgins can keep the process going while I'm on vacation?

Maurice W. Gallarda, PE
Managing Member



Pluris Holdings LLC

T 214.220.3412 / **F** 214.965.9090
5950 Berkshire Lane, Suite 800, Dallas, Texas 75225

This e-mail is subject to the Pluris Holdings email disclaimer.
[Click to read full disclaimer.](#)

From: John McDonald <JMcDonald@integrawater.com>
Sent: Tuesday, July 28, 2020 1:03 PM
To: Maurice Gallarda <mgallarda@plurisusa.com>
Subject: FW: Need a favor on my end

Maurice,

Please give me your thoughts on the attached permit. Somehow the original land owner wants to get this pipe in the ground while the contractor is onsite (not our cost, and see below). Do you care? I am guessing more customers are good for you, but would not sign without your consent based on where we are in the process.

Best,

John

John McDonald



3212 6th Avenue South
Suite 200
Birmingham, AL 35222
D 205.326.3355
P 205.326.3200
www.integrawater.com

From: Tim Clinkscales <tclinkscales@paramounte-eng.com>

Sent: Saturday, July 25, 2020 3:41 PM

To: John McDonald <JMcDonald@integrawater.com>

Subject: Need a favor on my end

John

I will call you in a few on all items, but need a favor as well before turned over to Pluris. As part of the Salters Haven deal, the original land owner is to have alternate sewer (LPS sewer) for his future 15 acres. It will be no flow but need you to sign if possible. It is shown on the detail sheet

Thanks

[Tim Clinkscales PE, PLS](#)

PARAMOUNTE ENGINEERING, INC
122 Cinema Drive
Wilmington, NC 28403
OFFICE: (910) 791-6707
CELL: (910) 520-1991
FAX: (910) 791-6760
www.paramounte-eng.com

Links contained in this email have been replaced by ZixProtect Link Protection. If you click on a link in the email above, the link will be analyzed for known threats. If a known threat is found, you will not be able to proceed to the

destination. If suspicious content is detected, you will see a warning.

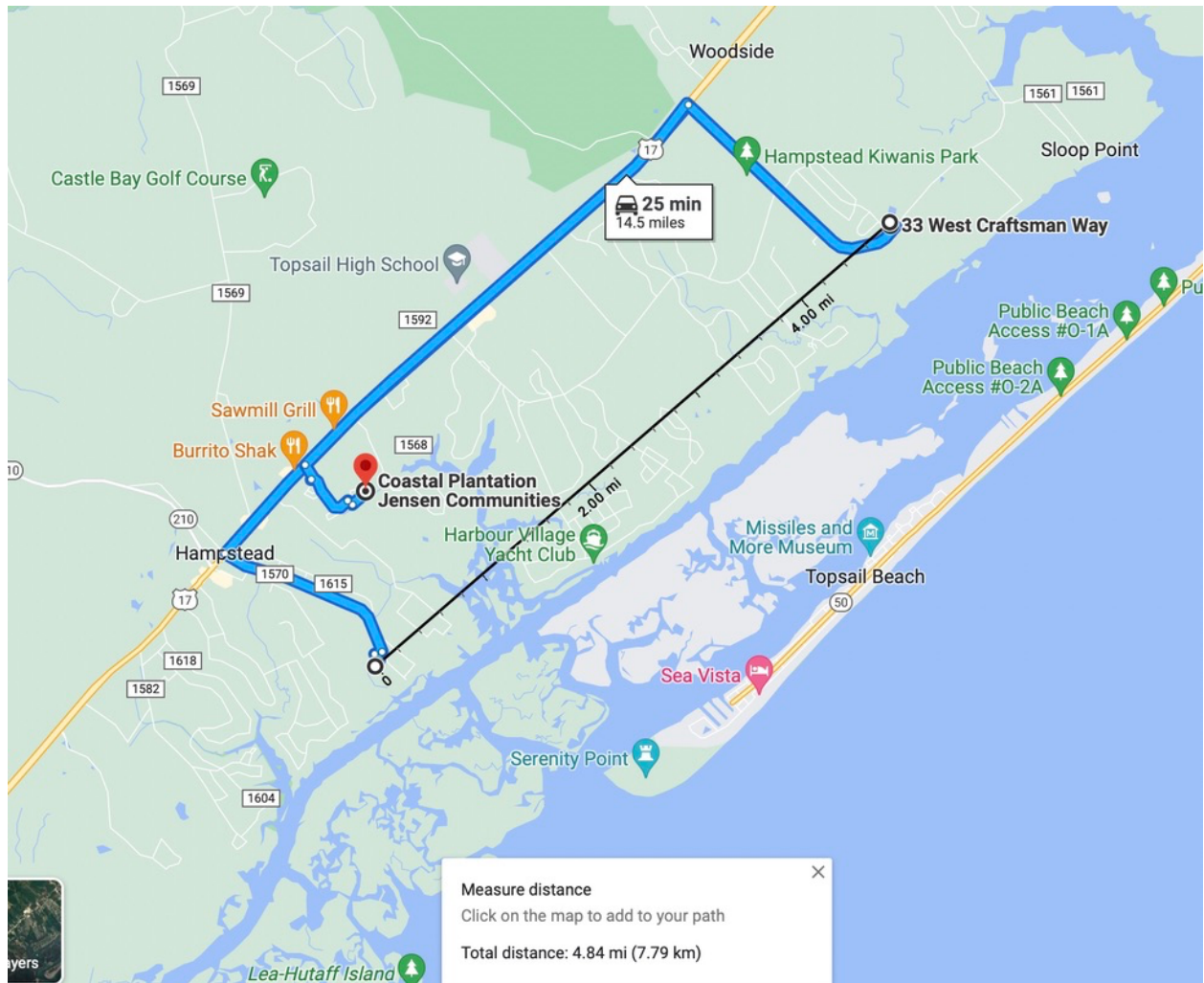
Links contained in this email have been replaced by ZixProtect Link Protection. If you click on a link in the email above, the link will be analyzed for known threats. If a known threat is found, you will not be able to proceed to the destination. If suspicious content is detected, you will see a warning.

Links contained in this email have been replaced by ZixProtect Link Protection. If you click on a link in the email above, the link will be analyzed for known threats. If a known threat is found, you will not be able to proceed to the destination. If suspicious content is detected, you will see a warning.

OFFICIAL COPY

Oct 03 2022

MAP OF SALTERS HAVEN AT LEA MARINA,
WYNDWATER, AND COASTAL PLANTATION



OFFICIAL COPY

Oct 03 2022

SALTERS HAVEN AT LEA MARINA
PENDER COUNTY, NORTH CAROLINA
SANITARY SEWER DESIGN NARRATIVE

Prepared for:

WLI INVESTMENTS, LLC
60 Gregory Road, Suite 1
Belville, NC 28451

Prepared by:

PARAMOUNTE
ENGINEERING, INC.

122 Cinema Drive
Wilmington, NC 28403

Project #16381.PE

January 2019



PROJECT NARRATIVE

The property served by this proposed sewer extension lies off of Factory Road and Forest Sound Road in Pender County. It is located at 287 Lea Lane.

WLI Investments, LLC desires to install a gravity sewer system and an 136 GPM pump station and 4-inch force main to serve a 310-lot single family subdivision, with it being built in 2 phases. The proposed wastewater from phase 1 is calculated to be **28,404 GPD**, be ultimately collected and carried to the proposed new pump station on the property, where it will then be pumped to the existing Majestic Oaks pump station across Factory Road at the current Old North State Utilities treatment facility (WQ0030088 – Old North State Water Company, LLC). This flow will be collected via both low pressure forcemain and a gravity sewer system

Gravity collection sewer lines carry the flow from the property to a centralized location where the pump station is sited and designed per NCAC Title 15A.2T.0100 - .1600. The gravity collection system is to be owned by Old North State Water Company, LLC. For the permit, it will consist of 6,500 LF of 8" gravity sewer, this represents all the gravity sewer for phase 1. The operating point for the pump station will be 136 gpm at 165 TDH.

The project contains gravity lines and manholes which are within 50' of wetlands. The plans require and show pipe materials and testing to meet watermain standards and for manholes to be fully lined with waterproof material and vacuum tested for these sections.

Project Name: Lea Marina
 Client: D Logan
 Project Number: 16381.PE
 Prepared By: CWM
 Date: 1/12/19



Projected Wastewater / Water Demands:

Single Family Lots				
<i>Use</i>	<i>Input (# of lots)</i>	<i>Projected Demand</i>		<i>Demand</i>
Lea Marina Residential	120	210	gpd/lot	25,200
Club House / Marina Area				
<i>Use</i>	<i>Input (# of Seats)</i>	<i>Projected Demand</i>		<i>Demand</i>
Club House	47	5	gpd/seat	234
<i>Use</i>	<i>Input (# of Persons)</i>	<i>Projected Demand</i>		<i>Demand</i>
Pool Area	72	10	gpd/person	720
<i>Use</i>	<i>Input (# of slips)</i>	<i>Projected Demand</i>		<i>Demand</i>
Marina Area	75	30	gpd/slip	2,250
Total Demand				28,404

***NOTE:** The most likely use of the Club House will be space for receptions or other similar gatherings. In order to project the wastewater demand per the 2T rules, the best use to model these buildings would be a Church with kitchen (5 gal/seat). To calculate the number of seats that each building could hold, we approximated that a 20' x 20' area would seat 10 persons (10' dia. Table w/ chairs). This calculation assumes that 75% of a buildings floor space could be used for seating, leaving the rest to miscellaneous building needs.

Building I.D.	Building Area (sf)	Seats (B.A./400 SF)*75%*10
Club House	2,500	47

Water Model Related Information

Average Daily Flow	28,404 gpd
Max Day Factor	2.1
Max Day Flow	59,649 gpd
Peak Hour Factor	3.5
Peak Hour Flow	99,415 gpd

Project Name: Lea Marina
 Client: D Logan
 Project Number: 16381.PE
 Prepared By: CWM
 Date: 1/12/19



Projected Wastewater / Water Demands:

Single Family Lots				
<i>Use</i>	<i>Input (# of lots)</i>	<i>Projected Demand</i>		<i>Demand</i>
Lea Marina Residential	310	210	gpd/lot	65,100
Future (Lea Properties)	30	210	gpd/lot	6,300
Club House / Marina Area				
<i>Use</i>	<i>Input (# of Seats)</i>	<i>Projected Demand</i>		<i>Demand</i>
Club House	47	5	gpd/seat	234
<i>Use</i>	<i>Input (# of Persons)</i>	<i>Projected Demand</i>		<i>Demand</i>
Pool Area	72	10	gpd/person	720
<i>Use</i>	<i>Input (# of slips)</i>	<i>Projected Demand</i>		<i>Demand</i>
Marina Area	75	30	gpd/slip	2,250
Total Demand				74,604

gpd
gpd
gpd
gpd
gpd

***NOTE:** The most likely use of the Club House will be space for receptions or other similar gatherings. In order to project the wastewater demand per the 2T rules, the best use to model these buildings would be a Church with kitchen (5 gal/seat). To calculate the number of seats that each building could hold, we approximated that a 20' x 20' area would seat 10 persons (10' dia. Table w/ chairs). This calculation assumes that 75% of a buildings floor space could be used for seating, leaving the rest to miscellaneous building needs.

Building I.D.	Building Area (sf)	Seats (B.A./400 SF)*75%*10
Club House	2,500	47

Water Model Related Information

Average Daily Flow	74,604 gpd
Max Day Factor	2.1
Max Day Flow	156,669 gpd
Peak Hour Factor	3.5
Peak Hour Flow	261,115 gpd

Lea Marina

Lift Station Calculations

Force Main Diameter = 4 inches
 FM Equivalent Length (to manifold loc.) = 3,440 lf
 Hazen-Williams Coefficient = 130

PS Pumping Rate = 136 GPM (from graph below)
 3" Force Main Velocity = 3.47 FPS

ADF for Lea Marina (See Projected Flow Calc.) = 74,604 GPD
 Head Pressure @ manifold loc. = 94 ft

Basin Diameter = 6 Feet
 Basin Area = 28.26 SF
 Cycle Time = 9.9 minutes
 Cycles/hour = 6.06
 NCDENR Active Storage Volume = 318 Gallons
 Active Storage Depth = 1.50 ft

Total ADF to Pump Station = 74604 GPD
 Total ADF to Pump Station = 52 GPM
 Peaking Factor = 2.5
 Peak Hourly Flow = 129.5 GPM

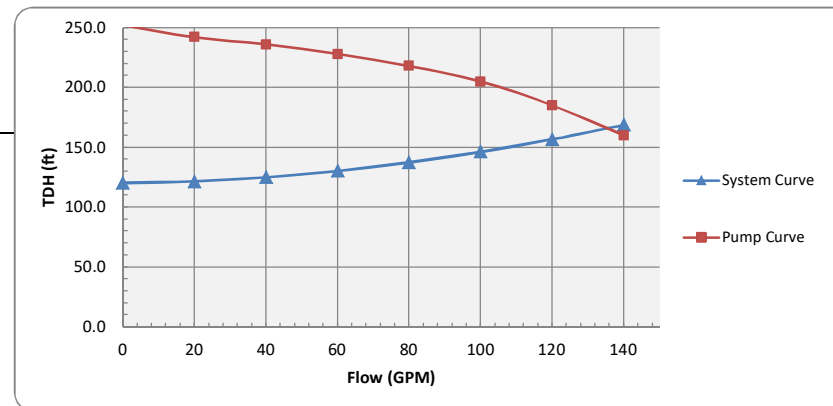
Approx. Inv. Elev. into Wet Well = 1.45 msl
 High Water Alarm Elevation = 1.25 fmsl
 Lag Pump On Elevation = 0.25 fmsl
 Lead Pump On Elevation = -0.75 fmsl
 Pump Cut-Off Elevation = -2.25 fmsl
 Wetwell Bottom Elevation = -4.50 fmsl

Highest Approx. Elev. along Force Main = 24 fmsl

Static Lift = 26.25 ft

Pump/System Analysis

Pipe Flow Rate (GPM)	System Curve - TDH (ft)	Total Head (ft) from MFR (Myers WG150H)
0	120.3	252
20	121.6	242
40	125.0	236
60	130.4	228
80	137.5	218
100	146.3	205
120	156.7	185
140	168.7	160



Note: These preliminary calculations are based on the best available information at the time of completion. Calculations are subject to change based on final design.