

Transmittal Letter

3062/24

Solutions, IPEM
Jim Eriksen, PE
303 North Bedford Street
Georgetown, DE 19947
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July 2, 2024
To:
**DE DNREC Division of Water
SWDS**
89 Kings Highway
Dover, DE 19901
302-739-9946

Attention: Gregory Pope/Davison Mwale
Re: Twin Masts
Job Number: G21029

We are sending you:
 Attached Under Separate Cover

Delivery via:
 UPS US Mail Fed Ex Hand Carried Picked up Other

Quantity	Description
1	Set of Twin Masts Sewer Plans
1	Sewer Narrative
1	Completed Application
1	Review Fee \$825 check #1900
1	CD w/ digital files
1	Sussex County P&Z Approval Letter
1	Public Notice Fee - \$300 check #1899

These are transmitted as checked below
 As requested For your use Resubmit copies for review Resubmit copies for approval

Comments:

Copy to:

Signature



Twin Masts Sanitary Sewer Narrative

Twin Masts is a proposed residential subdivision in Sussex County located on the 28500 block of Round Pole Bridge Road. The subdivision will contain 249 single family lots and a pool/pool house. All the residential lots and pool house will be served by a gravity collection system which will discharge into a proposed Artesian Wastewater Management, Inc. pump station. The pump station will discharge via a 4" force main and tie into an 8" existing forcemain along Coastal Highway – Route 1 (SCR-14). Solutions IPEM has been provided with sewer tie-in locations and elevations along with existing and future pipe sizes, materials, and lengths for pump station design. The sewer system will be owned and maintained by Artesian Wastewater Management, Inc. The system has been designed per Artesian standards.



OVER 100 YEARS OF SUPERIOR SERVICE

▲ Artesian Wastewater Management ▲ Artesian Utility Development ▲ Artesian Water Pennsylvania
▲ Artesian Water Maryland ▲ Artesian Wastewater Maryland

February 24, 2023

Twin Masts, LLC
5950 Symphony Woods Road, Suite 408
Columbia, MD 21044
C/O Megan Conner

RE: Twin Masts Ability to Serve Letter

With reference to your request concerning Water and Wastewater Service (collectively, "Service") for the Twin Masts project near Coastal Highway and Round Pole Bridge Road in Broadkill Hundred, Sussex County, Delaware known as Tax Parcel No. 235-16.00-68.00 & 235-16.00-69.00 (the "Property"), please be advised as follows:

Subject to the following conditions, Artesian Water Company, Inc. and Artesian Wastewater Management, Inc. (collectively, "Artesian") are willing and able to provide Service to the Property that meets all applicable State of Delaware, Delaware Department of Natural Resources and Environmental Control, and Sussex County standards.

Based on current conditions and subject to the development entity and Artesian entering Water and Wastewater Service Agreements (collectively, "Agreements") that addresses the financial terms of the provision of Service for the Property, in accordance with Artesian's respective tariffs as approved by the Delaware Public Service Commission, Artesian is willing and able to provide the required Service for this Property.

Certificates of Public Convenience and Necessity ("CPCNs") for the Property have been granted to Artesian from the Delaware Public Service Commission.

This letter shall expire if Agreements are not executed within one year of the date of this letter.

If you have any questions, please do not hesitate to contact us.

Yours very truly,

ARTESIAN WATER COMPANY, INC.

A handwritten signature in black ink, appearing to read "Adam Gould".

Adam Gould
Manager of Systems Planning and Design



Department of Natural Resources
and Environmental Control
89 Kings Hwy
Dover, DE 19901
dnrec.delaware.gov

Division of Water
Commercial and Government Services Section

Phone: (302) 739-9946
Fax: (302) 739-2296

INSTRUCTIONS FOR COMPLETING THE PERMIT APPLICATION FOR THE CONSTRUCTION OF WASTEWATER COLLECTION AND CONVEYANCE SYSTEMS

The following items must accompany the application. **Please note that incomplete application packages will be returned in their entirety and not reviewed until such time as all required information is received.**

- 1. A narrative summary of the intended purpose and design of the proposed facilities.
- 2. One (1) set of final construction plans and specifications, if applicable, signed and sealed by a Delaware-registered Professional Engineer, or a Delaware-registered Professional Land Surveyor for gravity systems only. One (1) electronic copy of final Plans.
- 3. One (1) electronic copy of final Plans.
- 4. The final plans must be drawn to scale showing slopes, inverts, pipe types and sizes, existing and proposed ground surfaces, tops of manholes, water lines, stormwater and stream crossings, encasements shown in plan and profile, and other information if pertinent or requested.
- 5. For pump/lift stations and force mains, include all calculations and pump/performance curves.
- 6. A check made payable to the State of Delaware for eight hundred twenty-five dollars (\$825.00), the non-refundable permit review fee. This fee covers the initial review and one follow-up review of any corrections or changes made to address the Division's comments. An additional eight hundred twenty-five dollars (\$825.00) non-refundable review fee must be submitted for resubmission of the plans if changes are made to the project which trigger a complete review of the permit application.
- 7. Your permit will have a public notice requirement if your system includes force mains or pump/lift stations. Include a check made payable to the State of Delaware for three hundred dollars (\$300.00) for the reimbursement of legal notices if the system has a force main connection or a pump/lift station.
- Please submit the completed application package, as outlined above, to DE DNREC, Division of Water, Commercial and Government Services Section, 89 Kings Highway, Dover, DE 19901. Please note, a new application, including the review fee, must be submitted if the Division's comments are not addressed or if requested supplemental information is not provided within one (1) year of the comment or request date.
- The following items must be submitted prior to permit issuance:
- 8. Verification from the appropriate county or municipal planning authority that the project has the proper zoning approval.
- 9. A letter from the owner/operator of the wastewater facilities to which the proposed collection and conveyance facilities connect. The letter must include confirmation that the owner/operator has approved the project, that the owner/operator will take responsibility for treating and disposing of the wastewater to be conveyed and that the downstream facilities have the capacity to manage the additional flows without causing or contributing to violations of Delaware's Environmental Protection Act (7 Del. C., Chapter 60) and the regulations promulgated thereafter. This includes, but is not limited to, unauthorized discharges such as overflows at manholes and violations of the treatment system's operating permit (for example, the National Pollutant Discharge Elimination System (NPDES) permit).

- Visit us on the web at: <https://dnrec.alpha.delaware.gov/water/surface-water/>

**APPLICATION FOR THE CONSTRUCTION OF
WASTEWATER COLLECTION AND CONVEYANCE SYSTEMS**
Application must be complete, typewritten or clearly printed

Date Application Submitted _____

PROJECT INFORMATION			
Project Name and Location/ Address Twin Masts 28500 Block Round Pole Bridge Road, Milton, DE 19968			
Tax Parcel Number(s) 235-16.00 Parcels 68.00 & 69.00			
County <input type="checkbox"/> Kent <input type="checkbox"/> New Castle <input checked="" type="checkbox"/> Sussex		Watershed (www.dnrec.delaware.gov/swc/wa/Pages/WatershedAssessment.aspx) <input type="checkbox"/> Chesapeake Bay <input checked="" type="checkbox"/> DE Bay/Estuary <input type="checkbox"/> Inland Bays/Atl Ocean <input type="checkbox"/> Piedmont	
Sewer District or Interceptor Artesian Wastewater Management, Inc.		Wastewater Treatment/Disposal Facility Name Beaver Creek Regional Wastewater Treatment Facility	
Anticipated Construction Start Date		Treatment/Disposal Facility Owner and Operating Permit Number Artesian Wastewater Management, Inc. Operating Permit #: 359014-06	
Please note, construction permits expire three (3) years from the date of permit issuance.			
Are you requesting <u>plan review and comment</u> or WPC Construction Permit issuance? (circle one)			
Design Flow (gallons/day) Average 60,240		Peak 225,900	Peak Factor 3.75
Basis of Design 240 gal/EDU/Day			
Description 249 lot residential community, 1 on-site pool house. Gravity collection system to on-site pump station to discharge via forcemain to an existing 8" forcemain along Coastal Highway - Route 1 (SCR-14)			
OWNER/DEVELOPER			
Company Name Twin Masts, LLC			
Mailing Address 5950 Symphony Woods Road, Suite 408			
City Columbia		State MD	Zip 21044
Contact Name Megan Conner			
E-Mail Address megan@stonemarkventures.com			
Telephone (410) 861-7159		Cell	Fax

ENGINEER						
Company Name Solutions IPEM						
Mailing Address 303 North Bedford Street						
City Georgetown		State DE		Zip 19947		
Contact Name Jim Eriksen						
E-Mail Address jeriksen@solutionsipem.com						
Telephone (302) 297-9215		Cell		Fax		
GRAVITY SEWER INFORMATION						
Ownership <input type="checkbox"/> Public <input checked="" type="checkbox"/> Private		Type of Sewer System <input checked="" type="checkbox"/> Residential <input type="checkbox"/> Commercial <input type="checkbox"/> Industrial <input type="checkbox"/> Other?			If Other, list below	
Type of Pipe	Length (ft)	Diameter (in)	Joint Specification	Min. Slope (ft/ft)	Min. Velocity (ft/sec)	
Ductile Iron	78.23	10	Wall Bell & Spigot	0.0030	2.0	
Ductile Iron	122.95	8	Wall Bell & Spigot	0.0030	2.0	
PVC SDR-26	10,221.82	8	Wall Bell & Spigot	0.0030	2.0	
Minimum Pipe Cover (ft) 4	Number of Manholes 48		Drop manholes provided? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Maximum Distance Between Manholes (ft) 400		
Minimum ten foot (10') horizontal & eighteen inch (18") vertical separation from water lines maintained? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			If not, explain provisions to prevent cross-contamination:			
Explain any special challenges (for example, stream, highway and/or railroad crossings, directional drilling, elevated sewers, etc.)						
Comments						

PUMP/LIFT STATION INFORMATION				
Ownership <input type="checkbox"/> Public <input checked="" type="checkbox"/> Private	Type of Wastewater <input checked="" type="checkbox"/> Residential <input type="checkbox"/> Commercial <input type="checkbox"/> Industrial <input type="checkbox"/> Other?		If Other, list below	
Pump Station Flows (gallons/day) Design	Average 60,240	Peak 225,900	Peak Factor 3.75	
Basis of Design 240 gal/EDU/Day		Pump Type non-clog		
Will peak flows be accommodated if largest unit fails? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Pump calc's and pump curves attached? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Cycle Time (minutes)	Wet Well Detention Time (minutes)	
Check valves provided on discharge line? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Gate valves provided on discharge line? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
If not, explain alternate procedure:				
Ventilation provided in wet well? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Dry Well? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Is an alarm system included? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Alternate source of power? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
What other provisions for emergency operations?				
Height of Influent Above Pump (suction head) (ft) 6.03	Height of Effluent Above Pump (discharge head) (ft) 18.87		Friction Loss (ft) 56.85	
Pump Design Point 157GPM @ 191.3ft	Pump Operating Point 170GPM @ 201ft	Static Head (ft) 134.5	Total Head (ft) 191.3	Required Motor Horsepower (hp) 23
FORCE MAIN INFORMATION				
Type of Pipe C900 PVC		Length (ft) 1,741	Diameter (in) 4	
Hazen-Williams "C" Design Factor 150	Type of Joints ASTM D3139	Velocity Under Design Conditions (ft/sec) 4	Minimum Pipe Cover (ft) 4	
Air relief valves specified? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Clean-outs provided? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Maximum distance between clean-outs (ft)		
Minimum ten foot (10') horizontal & eighteen inch (18") vertical separation from water lines maintained? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If not, explain provisions to prevent cross-contamination:			
Comments				

RECEIPT

	July 22nd, 2024		85
RCVD FROM	Middle Creek Preserve LLC		\$825.00
	Eight Hundred twenty-five dollars and 00/100		DOLLARS
FOR	Plan review fee WPCC 3062/24 Twin Masts		
ACCT	\$ 825.00	x	CHECK # 1900
PAYMENT	\$ 825.00		CASH
	\$ -		OTHER BY Kevin Bronson

DNREC, Commercial & Government Services Section, 89 Kings Hwy, Dover, DE 19901

RECEIPT

	July 22nd, 2024		86
RCVD FROM	Middle Creek Preserve LLC		\$300.00
	Three Hundred Dollars and 00/100		DOLLARS
FOR	WPCC Legal Notice Reimbursement 3062/24		
ACCT	\$ 300.00	x	CHECK # 1899
PAYMENT	\$ 300.00		CASH
	\$ -		OTHER BY Kevin Bronson

DNREC, Commercial & Government Services Section, 89 Kings Hwy, Dover, DE 19901