



**DAVIS  
BOWEN &  
FRIEDEL, INC.**

3022/24

ARCHITECTS • ENGINEERS • SURVEYORS

1 Park Avenue ; Milford, Delaware 19963 | 302.424.1441

## Letter of Transmittal

**TO:** DNREC  
 89 Kings Highway  
 Dover, DE 19901

DATE: 03/20/24
JOB NO. 1443B006.A01
ATTENTION: Wenjia Fan
RE: Granary at Draper Farm
<b>RECEIVED</b>
<b>MAR 22 2024</b>
DNREC Division of Water

WE ARE SENDING YOU:  Attached  Under separate cover via \_\_\_\_\_ the following items:

- Shop drawings     Prints     Plans     Samples     Specifications  
 Copy of letter     Change order     \_\_\_\_\_

COPIES	DATE	NO.	DESCRIPTION
1			Application
2			Construction Plans
1			Check # 4095 \$300.00- Pump station
1			Check # 4094 \$825.00- Review Fee

THESE ARE TRANSMITTED as checked below:

- For approval     Approved as submitted     Resubmit \_\_\_\_\_ copies for approval  
 For your use     Approved as noted     Submit \_\_\_\_\_ copies for distribution  
 As requested     Make corrections noted     Return \_\_\_\_\_ corrected prints  
 For review and comment     \_\_\_\_\_  
 FOR BIDS DUE \_\_\_\_\_     PRINTS RETURNED AFTER LOAN TO US

REMARKS \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

If you should have any questions or need additional information, please contact me at 302-424-1441 or via email at kna@dbfinc.com

Thank you,

COPY TO: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

SIGNED: \_\_\_\_\_  
 PRINT: \_\_\_\_\_  
 TITLE: \_\_\_\_\_  
 Kirstin N. Anton  
 Administrative Assistant



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) 739-8369

## 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, invert, 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 03/19/2024

PROJECT INFORMATION			
Project Name and Location/ Address The Granary at Draper Farm - Section 1 Sand Hill Road & Gravel Hill Road Milton			
Tax Parcel Number(s) 2-35-20.00-12.00 & 2-35-20.00-19.00			
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 Treatment/Disposal Facility Name Sussex Regional Recharge Facility (SRRF)		
Anticipated Construction Start Date	Treatment/Disposal Facility Owner and Operating Permit Number Artesian Wastewater Management, Inc. / 359288-01		
Please note, construction permits expire three (3) years from the date of permit issuance.			
Are you requesting plan review and comment or <u>WPCC Construction Permit issuance? (circle one)</u>			
Design Flow (gallons/day) Average 228,000	Peak 798,000	Peak Factor 3.5	Basis of Design 240 gpd/EUD X 950 EDU's
Description 180 units (Section 1) subdivision. Gravity system going to a proposed pump station. Proposed Force Main going through the site and connecting to an existing force main along Gravel Hill Rd.			
OWNER/DEVELOPER			
Company Name Sand Hill, LLC			
Mailing Address P.O. Box 1686			
City Jackson Hole	State Wyoming	Zip 83001	
Contact Name Colby Cox			
E-Mail Address cccox@coninv.com			
Telephone 203-520-4203	Cell	Fax	

ENGINEER					
Company Name Davis, Bowen & Friedel, Inc.					
Mailing Address 1 Park Avenue					
City Milford		State DE		Zip 19963	
Contact Name Jamie Sechler					
E-Mail Address jls@dbfinc.com					
Telephone (302) 424-1441		Cell		Fax (302) 424-0430	
GRAVITY SEWER INFORMATION					
Ownership <input checked="" type="checkbox"/> Public <input 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 Ductile Iron	Length (ft) 2,887	Diameter (in) 10 & 12	Joint Specification Push	Min. Slope (ft/ft) .0022	Min. Velocity (ft/sec) 2
SDR-26	6,874	8 & 10	Push	.0028 & .002	2
Minimum Pipe Cover (ft) 4	Number of Manholes 42	Drop manholes provided? <input type="checkbox"/> Yes <input checked="" 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 checked="" type="checkbox"/> Public <input type="checkbox"/> Private		Type of Wastewater <input checked="" type="checkbox"/> Residential <input checked="" type="checkbox"/> Commercial <input type="checkbox"/> Industrial <input type="checkbox"/> Other?		If Other, list below
Pump Station Flows (gallons/day) Design 798,000			Average 228,000	Peak 798,000
			Peak Factor 3.5	
Basis of Design			Pump Type Submersible	
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) 7.5	Wet Well Detention Time (minutes) 7.5
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) 6.2		Height of Effluent Above Pump (discharge head) (ft) 19.95		Friction Loss (ft) 27.75
Pump Design Point 555 @119.75 ft.	Pump Operating Point 570 GPM@ 121 ft.	Static Head (ft) 32	Total Head (ft) 119.75	Required Motor Horsepower (hp) 30
FORCE MAIN INFORMATION				
Type of Pipe SDR-21		Length (ft) 4,050		Diameter (in) 8
Hazen-Williams "C" Design Factor 120	Type of Joints Push	Velocity Under Design Conditions (ft/sec) 3.5	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**

March 27, 2024

**30**

RCVD FROM Davis, Bowen & Friedel, Inc. \$825.00

Eight Hundred twenty-five dollars and 00/100 DOLLARS

FOR Plan review fee WPCC 3022/24 The Granary at Draper Farm

ACCT	\$	825.00
PAYMENT	\$	825.00
	\$	-

<input checked="" type="checkbox"/>	CHECK #	4094
<input type="checkbox"/>	CASH	
<input type="checkbox"/>	OTHER	BY <u>Kevin Bronson</u>

DNREC, Surface Water Discharges Section, 89 Kings Hwy, Dover, DE 19901

**RECEIPT**

March 27, 2024

**31**

RCVD FROM Davis, Bowen & Friedel, Inc. \$300.00

Three Hundred Dollars and 00/100 DOLLARS

FOR WPCC Legal Notice Reimbursement 3022/24

ACCT	\$	300.00
PAYMENT	\$	300.00
	\$	-

<input checked="" type="checkbox"/>	CHECK #	4095
<input type="checkbox"/>	CASH	
<input type="checkbox"/>	OTHER	BY <u>Kevin Bronson</u>

DNREC, Surface Water Discharges Section, 89 Kings Hwy, Dover, DE 19901